

NO. 21-035

**TREE PROTECTION BYLAW**

**A BYLAW OF THE CITY OF VICTORIA**

The purposes of this Bylaw are to protect and enhance the urban forest by:

- (a) providing for protection and preservation of trees,
- (b) providing for the replacement of trees where tree removal is necessary, and
- (c) ensuring that lots that are being developed have sufficient tree canopy.

**Contents**

|    |   |
|----|---|
| 1  | Title   |
| 2  | Definitions   |
| 3  | Application of Bylaw  |
| 4  | Prohibitions  |
| 5  | Applications for Tree Permits   |
| 6  | Development Related Applications  |
| 7  | Pruning Trees   |
| 8  | Cutting or Removing Trees   |
| 9  | Requirements for Tree Permits   |
| 10 | Contents of Tree Permit Applications  |
| 11 | Information Required for Development Related Applications                     |
| 12 | Amendments and Extensions to Tree Permits                                     |
| 13 | Director's Powers with Respect to Permits                                     |
| 14 | Application for Reconsideration   |
| 15 | Emergency Cutting, Pruning or Removal   |
| 16 | Removing Hazardous Trees  |
| 17 | Site Requirements   |
| 18 | Tree Protection Requirements  |
| 19 | Pruning, Cutting, Damaging and Removing Protected Trees in Violation of Bylaw |
| 20 | Replacing Trees Removed   |
| 21 | Development Related Tree Permits – Achieving Tree Minimum                     |
| 22 | Requirements for Planting and Maintaining Replacement Trees                   |

- 23 Permit Fee
- 24 Security – General
- 25 Security for Replacement Trees
- 26 Security for Retained Trees
- 27 Release of Security
- 28 Inspections and Assessments
- 29 Stop Work Orders
- 30 Recovery of Costs and Fees from Real Property Taxes
- 31 Offences
- 32 Penalties
- 33 Severability
- 34 Consequential Amendments to Ticket Bylaw
- 35 Definitions in Relation to this Part
- 36 Amendment to Tree Preservation Bylaw No. 05-106
- 37 Repeal
- 38 Transition Provisions
- 39 Repeal of Transition Provisions
- 40 Commencement

Schedule “A” – Tree Permit Application Fees

Schedule “B” – Tree Survey and Tree Management Plan Requirements

Schedule “C” – Arborist Report Requirements

Schedule “D” – Tree Protection Barrier Requirements

Schedule “E” – Replacement Tree Requirements

Schedule “F” – Minimum Number of Trees Required Per Lot

Schedule “G” – Letter of Assurance Requirements

Under its statutory powers, including sections 8(3)(c), 16, 17, and 258 of the *Community Charter* and section 527 of the *Local Government Act*, the Council of the Corporation of the City of Victoria, in an open meeting assembled, enacts the following provisions:

## **PART 1 – INTRODUCTION**

### **Title**

- 1 This Bylaw may be cited as the “Tree Protection Bylaw”.

## Definitions

### 2 In this Bylaw:

#### “arborist”

means a person holding a current certification of ISA Certified Arborist issued by the International Society of Arboriculture;

#### “arboricultural best practice”

means practices in accordance with the most current version of the American National Standards Institute (ANSI) Publication, “American National Standard for Tree Care Operations - Tree, Shrub, and Other Woody Plant Management - Standard Practices” and the companion “Best Management Practices” Series of the International Society of Arboriculture;

#### “building envelope”

means that part of a lot on which the primary building may be sited under the setback regulations of the City’s zoning bylaws, as varied by a development permit, a development variance permit, or a heritage alteration permit;

#### “cut or cutting”

means knocking down, dismantling, or piercing, any or all parts, of any tree including its roots, but does not include shearing or trimming of branches less than 10 cm in diameter;

#### “damage or damaged”

means any action which is likely to cause negative impacts to the health or structural integrity of a tree;

#### “DBH”

stands for “diameter at breast height” and means:

- (a) for a tree having a single trunk at 1.4 metres above the existing grade, the diameter of the trunk measured at 1.4 metres above the existing grade,
- (b) for a tree having two or more stems at 1.4 metres above the existing grade, the cumulative total of the diameter of the three largest stems measured at 1.4 metres above the existing grade, and
- (c) for a hedge, the diameter of the largest stem measured at 1.4 metres above the existing grade;

#### “development related”

means any of the following applications:

- (a) rezoning,
- (b) subdivision,
- (c) development permits or temporary use permits associated with a new building or an

addition to an existing building, or

- (d) development variance permits, heritage alteration permits, or building permits associated with:
  - (i) demolition, blasting, or construction of a principal building, or
  - (ii) construction of an accessory building or an addition to an existing building that is greater than 10 square metres, excluding deck, patio and balcony areas,

but does not include any application related to only change of use, interior works, plumbing or electrical permits, or exterior material replacement;

**“Director”**

means the City’s Director of Parks, Recreation and Facilities or that person’s designated representative;

**“hazard tree”**

means a tree that has, in the opinion of a TRAQ arborist:

- (a) a high or extreme TRAQ risk rating, or
- (b) an imminent likelihood of failure;

**“hedge”**

means a row of five or more trees of consistent size and form planted less than 1.25 metres apart from one another on centre;

**“hedge length”**

means the longest distance from the drip line of one tree or shrub within a hedge to the drip line of another that can be measured along a horizontal plane;

**“lot”**

means a parcel of land;

**“protected tree”**

means any of the following:

- (a) a hedge that contains any single stem with a DBH over 30 cm,
- (b) a tree with a DBH over 30 cm,
- (c) Garry Oak (*Quercus garryana*), Arbutus (*Arbutus menziesii*), Pacific Yew (*Taxus brevifolia*) or Pacific Dogwood (*Cornus nuttallii*) over 50 cm in height,
- (d) a replacement tree,
- (e) a tree that is protected by a restrictive covenant in favour of the City,
- (f) a tree that is on a slope where the slope grade is greater than 33% over 10 metres, or
- (g) a tree that is within 15 metres of the natural boundary of a watercourse;

“protected root zone”

- (a) means the area of land surrounding the trunk of a protected tree that contains the bulk of the critical root system of the tree, as defined on a plan prepared by an arborist, that the Director approves, or
- (b) where a plan within the meaning of subsection (a) of this definition has not been prepared and approved, means the area of land surrounding the trunk of a protected tree contained within a circle having a radius which is calculated by multiplying the DBH of the tree by 18;

“prune, pruning or pruned”

means the selective shearing or trimming of living or dead branches equal to or larger than 10 cm in diameter;

“remove, removing or removed”

means to saw or chop down, kill or otherwise withdraw a tree by any means;

“replacement tree”

means a tree that will or has been planted on a lot to:

- (a) replace trees removed or irreparably cut, pruned or damaged on the same lot pursuant to this Bylaw, or
- (b) achieve the tree minimum on a lot;

“retained tree”

means a protected tree that:

- (a) according to a tree permit, an owner intends to retain or has retained on a lot, or
- (b) according to this Bylaw, an owner must retain in its existing location on a lot;

“shared tree”

means a tree with any part of its trunk or trunk flare crossing a property line, including where the adjacent property is a highway, park, or other City-owned property;

“specimen tree”

means a tree that is greater than 60 cm DBH and in good health and structure, but does not include:

- (a) English Holly (*Ilex aquifolium*), Tree of Heaven (*Ailanthus altissima*), Lombardy Poplar (*Populus nigra*), or
- (b) any species of tree that is a regulated invasive plant or unregulated invasive plant of concern in British Columbia as declared by the Province or the Invasive Species Council of BC;

“topping or topped”

means reducing overall tree size using internodal incisions without regard for health or

structural integrity and includes re-topping of previously topped trees;

“TRAQ arborist”

means an arborist who holds the International Society of Arboriculture’s Tree Risk Assessment Qualification (TRAQ);

“tree”

means a self-supporting, perennial, woody plant that has a trunk or stem and a root system;

“tree minimum”

means the minimum number of trees required per lot, as specified in Schedule “F”;

“tree permit”

means a Tree Protection Bylaw Tree Permit/Record in the form prescribed for that purpose by the Director and issued by the Director pursuant to this Bylaw;

“Tree Reserve”

means a fund established by the City that is used to plant trees on public and private lands to replace tree canopy lost, and for the promotion and stewardship of a healthy tree canopy in the City.

### **Application of Bylaw**

- 3 (1) All provisions of this Bylaw apply to individual trees in a hedge, except only to the extent that any such provision specifically excepts, excludes, or exempts a hedge.
- (2) This Bylaw does not apply to the cutting, pruning or removal of a tree undertaken by or on behalf of:
  - (a) the City, on park, highway or land owned or held by the City, or
  - (b) the City, for the purpose of installing, repairing, or maintaining public works or services.
- (3) Works or services referred to in subsection (2)(b), other than emergency repairs, must be reviewed and approved by the Director before they are carried out.

## **PART 2 – PROHIBITIONS**

### **Prohibitions**

- 4 (1) No person shall cut, damage, prune or remove any protected tree, or cause or allow any protected tree to be cut, damaged, pruned or removed, unless:
  - (a) permitted by this Bylaw, and
  - (b) the activity is carried out strictly in accordance with the terms of any issued tree permit and this Bylaw.

- (2) No person shall fail to comply with the requirements of this Bylaw.
- (3) No person shall fail to comply with the terms and conditions of a tree permit.
- (4) No person shall alter, falsify, or otherwise misrepresent any information on or for a tree permit or application.
- (5) Without restricting the generality of subsection (1), any of the following actions is deemed to constitute damage pursuant to that subsection:
  - (a) poisoning, burning, or pruning in a manner not in accordance with arboricultural best practice, including removal of more than 25% of the tree's total live foliage or bud bearing branches or limbs,
  - (b) topping, unless the tree in question has been previously topped and regenerative growth has a high likelihood of failure due to weak branch attachment, excessive branch elongation and end weight, or the formation of extensive decay or cavities that cannot be mitigated other than by re-topping the tree,
  - (c) raising or lowering the grade within the protected root zone,
  - (d) shearing, harming or undermining the roots of the tree growing within the protected root zone,
  - (e) placing fill, building materials, asphalt, or a building or structure, or storing or stockpiling of organic material within a protected root zone,
  - (f) operating, staging or parking trucks, backhoes, excavators, mini-excavators, hydro-excavators, mechanical trenchers or other heavy equipment within a protected root zone,
  - (g) denting, gouging, drilling, harming, or affixing anything to the branches or the trunk of a tree,
  - (h) removing bark from a tree,
  - (i) depositing concrete, washout, or other liquid or chemical substances harmful to the health of a tree in a protected root zone,
  - (j) removing soil from a protected root zone,
  - (k) conducting blasting operations within a protected root zone,
  - (l) conducting blasting or excavating operations outside of a protected root zone that would harm roots or disturb soil inside a protected root zone, or
  - (m) doing anything that would cause the tree to die.

### **PART 3 – TREE PERMITS AND DEVELOPMENT RELATED APPLICATIONS**

#### **Applications for Tree Permits**

- 5 (1) The owner of a protected tree wishing to cut, prune, or remove the tree must apply for and obtain a tree permit.

- (2) The owner of a lot wishing to plant a replacement tree must apply for and obtain a tree permit.
- (3) The Director may waive the requirement to obtain a tree permit pursuant to subsection (1) when:
  - (a) only pruning is proposed on the lot and a utility permit has been approved by the Director of Engineering and Public Works that addresses the protection and mitigation requirements for protected trees on the lot, or
  - (b) the only work proposed on the lot is site servicing, blasting or demolition, and no construction or site disturbance will occur within 5 metres of a protected root zone.
- (4) An owner may delegate the authority to apply for a tree permit on behalf of the owner to an agent in writing.

### **Development Related Applications**

- 6 (1) Any applicant for a development related application must provide to the Director all information specified in section 11 concurrently with making the development related application.
- (2) Any applicant for a development related application that would permit construction or site disturbance must apply for a tree permit concurrently with providing the information pursuant to subsection (1).
- (3) The Director may waive the requirement to provide the information pursuant to subsection (1) in either of the following circumstances:
  - (a) the development related application is for a subsequent phase of a project that is unchanged, meaning that:
    - (i) within the previous two years, all the information was provided pursuant to subsection (1) at an earlier stage of the development,
    - (ii) the known conditions of the site and the trees on the site are unchanged,
    - (iii) the plans for the site and the trees on the site are unchanged, and
    - (iv) the ownership of the site is unchanged; or
  - (b) the development related application is a building permit for demolition or blasting on a subsequent phase of a project that is unchanged besides the new requirement for demolition or blasting, meaning that:
    - (i) within the previous two years, all the information was provided pursuant to subsection (1) at an earlier stage of the development,
    - (ii) the known conditions of the site and the trees on the site are unchanged,
    - (iii) aside from the proposed demolition or blasting, the plans for the site and the trees on the site are unchanged, and
    - (iv) the ownership of the site is unchanged.

### **Pruning Trees**

- 7 (1) The Director may issue a tree permit to prune a protected tree if the Director is satisfied



that the pruning will not cause negative impacts to the health or structural integrity of a tree.

- (2) In addition to the circumstances prescribed in subsection (1), the Director may issue a tree permit to prune a hedge if the Director is satisfied that the pruning is necessary to maintain clearance or uniform shape, and the negative impacts to the health or structural integrity of the hedge are minimized.

### **Cutting or Removing Trees**

- 8 The Director may issue a tree permit to cut or remove a protected tree if the Director is satisfied that at least one of the following applies:
  - (a) it is a hazard tree and the risk cannot be mitigated other than by cutting or removing the tree,
  - (b) it is dead, or more than 50% of its crown is dead,
  - (c) it is of a species that is a regulated invasive plant or unregulated invasive plant of concern in British Columbia as declared by the Province or the Invasive Species Council of BC,
  - (d) the trunk of the tree is located within the building envelope of the lot and cutting or removal of the tree is necessary for the purpose of constructing a building, an addition to a building, or construction of an accessory building,
  - (e) the trunk of the tree is located outside the building envelope of the lot but the tree will be critically impacted by the footprint of the construction of a building or addition to a building within the building envelope, and it is not possible to modify or relocate the construction on the lot in order to retain or avoid cutting the protected tree,
  - (f) it will be critically impacted by the footprint of one of the following installations or constructions, and it is not possible to modify or relocate the installation or construction on the lot in order to retain or avoid cutting the protected tree:
    - (i) a utility service,
    - (ii) a driveway, or
    - (iii) an off-street parking area that is required under a City zoning bylaw,
  - (g) it is located within the required construction access, and the construction access cannot be modified in order to retain or avoid cutting the protected tree,
  - (h) it is causing or will in the near future cause structure or infrastructure damage that cannot be mitigated other than by cutting or removing the protected tree,
  - (i) it is growing above a built substructure, patio or rooftop and it is necessary to cut or remove the protected tree in order to carry out repairs to the structure over which it is located, or
  - (j) cutting or removing it is required or permitted under any of the following provisions of the City's bylaws:

- (i) section 112(2) of the Streets and Traffic Bylaw, or
- (ii) section 4, 6, or 7 of the Trees and Insect Control Bylaw.

### **Requirements for Tree Permits**

- 9 (1) The Director may not issue a tree permit unless:
- (a) the Director has approved any document or information that was required as part of the application,
  - (b) if there are any retained trees on the lot, tree protections have been installed and the Director has approved of them, all in accordance with sections 18(2)(a) and (b),
  - (c) the applicant has paid the permit fee in accordance with section 23,
  - (d) the applicant has provided any security required in accordance with section 24, and
  - (e) all other conditions of this Bylaw have been met.
- (2) The Director may include conditions regarding the pruning, cutting, removal, replacement or retention of a tree in a tree permit, and the tree permit holder and the owner must comply with those conditions.
- (3) Without limiting the generality of subsection (2), the Director may, as a condition of a tree permit:
- (a) require that cutting, pruning, or removal be conducted under the supervision of an arborist, and
  - (b) if it is a development related tree permit, require that no tree removals occur until a building permit is issued for building construction.
- (4) The amount of time for which a tree permit is valid is as follows:
- (a) for a permit on a development related application, the first of
    - (i) one year from the date that the final occupancy permit is issued for the lot, and
    - (ii) five years from the date of issuance; and
  - (b) for all other permits, one year from the date of issuance.
- (5) The issuance of a tree permit, the acceptance of plans and other supporting documents submitted for a permit, and the making of inspections by the City shall not relieve the owner from full responsibility for complying with this Bylaw.

### **Contents of Tree Permit Applications**

- 10 (1) An application for a tree permit must be made in the form prescribed for that purpose by the Director, and must include all of the following:
- (a) the address and legal description for the lot or lots,
  - (b) if the applicant is not the owner, confirmation in writing that the applicant is acting on behalf of the owner and as agent for the owner,

- (c) if the application is for removal of a protected tree that is a shared tree, written consent from the adjacent property owner,
  - (d) if the application is for cutting or removal of a protected tree, the justification for such action under section 8, and
  - (e) a description and site plan that identify any trees to be cut, pruned, removed, retained, and replaced on the site.
- (2) In addition to the requirements listed in subsection (1), the Director may require the applicant to provide any of the following documents:
- (a) an arborist report, if, in the Director's opinion, it is necessary based on the nature, extent, siting, or impact of any tree cutting, pruning, removal, retention, or replacement,
  - (b) an arborist report from a TRAQ arborist confirming that a tree is a hazard tree, if the application entails removal or cutting of a hazard tree and, in the Director's opinion, the report is necessary to confirm whether the tree is a hazard tree,
  - (c) a tree management plan, if, in the Director's opinion, it is necessary based on the nature, extent or siting of any retained trees, and
  - (d) a replacement tree plan, if, in the Director's opinion, it is necessary based on the nature, extent or siting of any replacement trees.

### **Information Required for Development Related Applications**

- 11 (1) An applicant for a development related application must provide the Director with all of the following information in the form prescribed for that purpose by the Director:
- (a) the information specified in sections 10(1)(a) – (e),
  - (b) subject to subsection (3), a tree management plan and tree survey in accordance with Schedule "B",
  - (c) subject to subsection (3), an arborist report in accordance with Schedule "C",
  - (d) if replacement trees are required by this Bylaw, a replacement tree plan in accordance with Schedule "E", and
  - (e) if the application involves tree removals within 15 metres of a watercourse or on slopes greater than 33% grade over 10 metres, a survey prepared by a BC Land Surveyor that identifies top-of-bank or top of ravine bank, along with watercourse setbacks and geotechnical setbacks on the ground.
- (2) In addition to the requirements listed in subsection (1), for development related applications the Director may require the applicant to provide any of the following documents:
- (a) a letter from an arborist confirming that tree protection barriers have been installed in accordance with Schedule "D", if tree protection barriers are required,

- (b) a lot grading and servicing plan, if, in the Director's opinion, it is necessary based on the grade, topography, tree location, or other requirements of the site, and
  - (c) a letter of assurance, in the form prescribed for that purpose by the Director, from the arborist and the owner to the City in accordance with Schedule "G", if, in the Director's opinion, it is necessary based on site preparation or construction related activities occurring in a protected root zone.
- (3) The Director may waive the requirements to provide the documents listed in subsections (1)(b) and (c) if there are no protected trees on the site or adjacent to the site that may be impacted by the proposed work.

### **Amendments and Extensions to Tree Permits**

- 12 (1) A tree permit holder may apply to the Director for an amendment or extension of their tree permit before the date that the permit expires.
- (2) The Director may extend or modify the tree permit upon written request of the permit holder, if:
- (a) the permit holder has provided any additional information required by the Director in accordance with this Bylaw and the Director has approved such information,
  - (b) the applicant has paid the permit fee in accordance with section 23, and
  - (c) all other conditions of this Bylaw have been met.
- (3) If the Director extends or modifies a tree permit, all terms and conditions set out in the original tree permit shall apply to each extension or modification of the permit, except as expressly amended or modified by the extension or modification form.
- (4) If circumstances on the site or requirements pursuant to this Bylaw have changed significantly, or it is impractical to extend or modify a permit, the Director may require the permit holder to apply for a new tree permit.

### **Director's Powers with Respect to Permits**

- 13 (1) The Director may do any of the following if a proposed activity would endanger the health or life of a tree:
- (a) refuse to issue, amend or extend a tree permit;
  - (b) issue, amend or extend a tree permit subject to conditions;
  - (c) issue, amend or extend a tree permit to allow a tree to be cut, pruned, removed, retained or replaced.
- (2) The Director may refuse a tree permit if:
- (a) the applicant failed to comply with the requirements of this Bylaw,
  - (b) the cutting, pruning, removal, retention or replacement would create a hazard to an adjacent property,

- (c) the tree permit would contravene another City bylaw or a provincial or federal enactment,
  - (d) the applicant has failed to prove that the standards and requirements of this Bylaw or the tree permit can effectively be met, or
  - (e) the tree permit would be in conflict with a restrictive covenant in favour of the City.
- (3) The Director may suspend or cancel a tree permit if:
- (b) the permit holder or the owner failed to comply with a term or condition of the tree permit, or
  - (c) the permit holder or the owner failed to comply with this Bylaw.

### **Application for Reconsideration**

- 14 (1) An applicant that is subject to a decision of the Director to grant, refuse, suspend, or cancel a tree permit, or to impose conditions on the granting of a tree permit, is entitled to apply to Council to have the decision reconsidered.
- (2) An application for reconsideration must be made in writing to the City Clerk within 30 days of being notified in writing of the decision of the Director under this Bylaw.
- (3) There is no charge for an application for reconsideration.
- (4) A reconsideration under this section is limited to the most recent decision of the Director to grant, refuse, suspend or cancel, and does not extend the time limit to reconsider an earlier permit decision.

### **Emergency Cutting, Pruning or Removal**

- 15 (1) Despite any other provision in this Bylaw, a person may cut, prune, or remove a protected tree or the limb of a protected tree before applying for a tree permit if the tree or limb is in such imminent danger of failing that there is not time to obtain a tree permit prior to the failure.
- (2) A person who has cut, pruned, or removed a tree pursuant to subsection (1) must:
- (a) on the next business day from the date of cutting, pruning, or removing, apply for a tree permit in accordance with the requirements of this Bylaw, and provide the Director with a photograph or video depicting the state of the tree prior to the cutting, pruning or removal; and
  - (b) thereafter, promptly take all action necessary pursuant to this Bylaw to obtain such tree permit.
- (3) A person who has cut, pruned, or removed a tree pursuant to subsection (1) must not remove the trunk, limbs, roots or other remains of the tree from the site until an arborist employed by the City has visited the site and the Director has determined whether the emergency cutting, pruning or removal was justified.

- (4) Any tree that is removed pursuant to this section, regardless of the Director's determination under subsection (3), must be replaced in accordance with section 20, security for which must be provided in accordance with section 25.
- (5) For clarity, it is a violation of this Bylaw to cut, prune, or remove a protected tree or the limb of a protected tree before applying for a tree permit if the tree or limb is not in imminent danger of failing as described in subsection (1).

### **Removing Hazardous Trees**

- 16 (1) Owners and occupiers of a lot must cause any tree or shrub on the lot to be pruned, cut or removed, if the Director considers that the tree or shrub is:
- (a) a hazard to the safety of persons;
  - (b) likely to damage public property; or
  - (c) seriously inconveniencing the public.
- (2) The Director may notify the owner or occupier of a lot that the City will take, at the owner's or occupier's expense, the action required under subsection (1) if the owner or occupier does not take that action within 5 days of receiving the notice.
- (3) The City may enter a lot and undertake, at the owner's or occupier's expense, the work referred to in subsection (1) if the owner or occupier does not undertake or complete that work.

## **PART 4 – ACTIONS ON SITE**

### **Site Requirements**

- 17 (1) The tree permit holder must clearly identify with a mark of paint or tape each protected tree to be removed.
- (2) Public notice of a tree permit in the form prescribed for that purpose by the Director must be posted:
- (i) on the lot for which the permit has been issued, in a location visible to the public and facing the street,
  - (ii) at least 24 hours prior to the commencement of any cutting, pruning, or removal of a protected tree, and
  - (iii) remain posted on the lot until the completion of all work related to the cutting, pruning, or removal of protected trees on that lot.
- (3) A person cutting, pruning, or removing a tree must dispose of the tree parts in accordance with provincial and City enactments and requirements.

### **Tree Protection Requirements**

- 18 (1) A person cutting, pruning, removing, retaining or replacing a tree must do so in accordance with arboricultural best practice.
- (2) No construction, development-related activities or site disturbance may commence within 5 metres of a protected root zone until:
- (a) one of the following tree protections has been installed to protect the tree and all existing trees on the street fronting the lot on which the construction is to take place:
    - (i) tree protection barriers in accordance with Schedule “D”, or
    - (ii) alternative protective measures approved by the Director;
  - (b) the Director has approved of the tree protection installed pursuant to paragraph (a); and
  - (c) a tree permit has been issued related to the construction or site disturbance.
- (3) The tree protection installed pursuant to subsection (2)(a) must remain in place in the manner approved by the Director until all construction is completed and a final occupancy permit is issued by the City, or when the Director approves removal of the tree protection in writing.
- (4) If a tree protection installed pursuant to subsection (2)(a) is removed, altered or damaged, the owner must restore it so that it is returned to the standards approved by the Director.
- (5) Despite subsection (3), a tree protection installed pursuant to subsection 2(a) may be temporarily removed or relocated in order to allow work to be done within or near a protected root zone if the applicant has, prior to such removal or relocation, provided the Director with:
- (a) an arborist report or arborist memo setting out the reasons and proposed duration for such removal or relocation, and
  - (b) a letter of assurance that the arborist will be onsite and supervising all such work, and thereafter the applicant will restore the tree protection as it was prior to removal, and may only remove or relocate the tree protection in accordance with the approved report or memo, and at those time during which the applicant’s arborist is onsite and supervising all such work,
- and the Director is satisfied that the tree will survive and be safe to retain.

## **PART 5 – URBAN FOREST PRESERVATION MEASURES**

### **Pruning, Cutting, Damaging and Removing Protected Trees in Violation of Bylaw**

- 19 (1) If a protected tree is significantly damaged in violation of this Bylaw, and the tree will survive and be safe to retain, the Director may:
- (a) require that the owner have mitigation work completed by an arborist, if mitigation of

the damage may improve the health or structure of the tree; or

- (b) retain 50% of any security amount that was provided for the tree and place it in the Tree Reserve, if the Director is not satisfied that mitigation of the damage can improve the health or structure of the tree.
- (2) If a protected tree is removed or damaged in violation of this Bylaw, and the tree will not survive or is not safe to retain, the Director may retain the full security amount that was provided for the tree, and such money shall be placed in the Tree Reserve.
- (3) The Director may require the owner to submit an impact assessment report by an arborist detailing observed or suspected damage and mitigation options for a protected tree if the Director requires further information on any of the following:
  - (a) whether a protected tree was significantly damaged in violation of this Bylaw;
  - (b) whether a protected tree that was damaged will survive or be safe to retain; or
  - (c) whether mitigation of the damage can improve the health of the protected tree.
- (3) When a protected tree has been cut, pruned, damaged or removed in violation of this Bylaw, the trunk, limbs, roots and other remains of the tree shall not be removed from the lot until an investigation and assessment by the Director is complete and the removal is expressly authorized by the Director.
- (4) Notwithstanding any of the requirements of this section, an owner that cuts, prunes, damages or removes a tree in violation of this Bylaw remains subject to penalties pursuant to this Bylaw.

### **Replacing Trees Removed**

- 20 (1) The owner of a lot must plant replacement trees in accordance with this section for every protected tree that is removed from the lot.
- (2) For each protected tree that is removed that is a hedge, the owner of the lot must plant:
  - (a) one replacement tree of any species described in Part 1 of Schedule "E" per 4 metres of hedge length or part thereof removed,
  - (b) another hedge of the same hedge length that is likely to flourish on the site and is acceptable to the Director, or
  - (c) where it is not possible to plant in accordance with the requirements of either paragraph (a) or paragraph (b) due to grade, topography, tree location, soil depth, or other requirements of the site, the Director may permit the owner to plant two replacement trees of species described in Part 2 of Schedule "E" per 4 metres of hedge length or part thereof removed that are likely to flourish on the site and are acceptable to the Director.
- (3) For each protected tree that is removed that is growing in soil with a depth of less than 1 metre above a built structure, the owner of the lot must plant one replacement tree of a species described in Part 3 of Schedule "E", in accordance with specifications regarding soil volume.



- (4) For each protected tree that is removed that is not of a variety described in subsection (2) or (3), the owner of the lot must plant:
  - (a) one replacement tree of a species described in Part 1 of Schedule “E” that is likely to flourish on the site and is acceptable to the Director, or
  - (b) where it is not possible to plant a replacement tree of the species described in Part 1 of Schedule “E” due to grade, topography, tree location, soil depth, or other requirements of the site, the Director may permit the owner to plant two replacement trees of the species described in Part 2 of Schedule “E” that are likely to flourish on the site and are acceptable to the Director.
- (5) A tree that is not a protected tree on the same lot may count as a replacement tree under subsection (2) or (4), provided that it is not possible to plant another tree elsewhere on the lot, and the tree:
  - (a) is in good health,
  - (b) is of a species specifically described in Part 1 or Part 2 of Schedule “E”,
  - (c) is likely to have a height at maturity of greater than 10.0 metres, and
  - (d) is growing in a location that does not conflict with any existing or proposed building, addition to a building, underground utility service, driveway, off-street parking, or construction access.
- (6) Every owner required to plant a replacement tree must plant the replacement tree on the same lot as that from which the protected tree was removed.
- (7) For the purposes of subsections (1) - (4), if the applicant provides evidence to the Director that a lot cannot accommodate any of the replacement trees required on the lot either in accordance with the requirements of Part 4 of Schedule “E” or without compromising arboricultural best practice, and the Director is satisfied of the same, then:
  - (a) if the tree or hedge that is being replaced was removed in accordance with the Bylaw and was a hazard tree, the applicant is not required to provide cash-in-lieu to the City for the replacement tree that cannot be accommodated, or
  - (b) for any other tree or hedge that is being replaced, the applicant must provide to the City \$2000.00 cash-in-lieu for each replacement tree that cannot be accommodated, and such money shall be placed in the Tree Reserve.

### **Development Related Tree Permits – Achieving Tree Minimum**

- 21 (1) If an owner of a lot is applying for a building permit and a tree permit pursuant to a development related application, they must ensure that the lot will achieve at least the tree minimum once all replacement trees are planted.
- (2) In order to satisfy subsection (1), if a lot will not achieve at least the tree minimum after planting all replacement trees required pursuant to section 20, the owner must plant additional replacement trees in order to achieve at least the tree minimum on the lot.

- (3) For the purposes of subsections (1) and (2), if the applicant provides evidence to the Director that a lot cannot accommodate any of the replacement trees required on the lot pursuant to this section either in accordance with the requirements of Part 4 of Schedule “E” or without compromising arboricultural best practice, and the Director is satisfied of the same, the applicant must provide to the City \$2000.00 cash-in-lieu for each replacement tree that cannot be accommodated, and such money shall be placed in the Tree Reserve.
- (4) For the purposes of this section only, the number of trees on a lot are determined as follows:
  - (a) each specimen tree is counted as three trees,
  - (b) each protected tree that is not a specimen tree is counted as one tree,
  - (c) any tree that forms part of a hedge is not counted, and
  - (d) any tree that is a hazard tree, dead, or has more than 50% of its crown dead is not counted.
- (5) In order to achieve the tree minimum, for each replacement tree required, the owner must plant:
  - (a) one replacement tree of any species described in Part 1 of Schedule “E” that is likely to flourish on the site and is acceptable to the Director, or
  - (b) where it is not possible to plant a replacement tree of the species described in Part 1 of Schedule “E” due to grade, topography, tree location, soil depth, or other requirements of the lot, the Director may permit the owner to plant two replacement trees of the species described in Part 2 of Schedule “E” that are likely to flourish on the site and are acceptable to the Director.
- (6) Notwithstanding subsection (1), if an owner is applying for a building permit for demolition only, the owner does not need to meet the tree minimum on the lot.

### **Requirements for Planting and Maintaining Replacement Trees**

- 22 (1) Every owner required to plant a replacement tree must plant it by the following deadline:
- (a) for a development related tree permit application, the first of
    - (i) one year from the date that the final occupancy permit is issued for , and
    - (ii) five years from the date of tree permit issuance; or
  - (b) for any other tree permit application, one year from the date of tree permit issuance.
- (2) Every owner required to plant a replacement tree must plant and maintain each replacement tree in accordance with arboricultural best practice, the tree permit, any tree replacement plan required, the requirements of Part 4 of Schedule “E”, and the latest edition of the CNLA/CSLA “Canadian Landscape Standard”.
- (3) If any replacement tree does not survive for one year from the date of planting, the Director may take one of the following actions:

- (a) require the owner to replace the tree within 6 months and maintain it for a further period of one year,
  - (b) if the replacement tree was required in a tree replacement plan, the Director may plant a new replacement tree on the lot in accordance with the tree replacement plan within 6 months and require the owner to maintain it for a further period of one year, or
  - (c) retain all security held by the City for that replacement tree, and such money shall then be used for the planting of a tree on another site to replace the tree canopy lost.
- (4) If any owner fails to plant or maintain a replacement tree when required to do so by this Bylaw or a tree permit, the City can do so at the owner's expense.

## **PART 6 – FEES & SECURITY**

### **Permit Fee**

- 23 (1) An application for a tree permit must be accompanied by the fee prescribed by Schedule "A".
- (2) A fee pursuant to subsection (1) is not refundable.

### **Security – General**

- 24 (1) Where replacement trees or retention of protected trees are required as a condition of a tree permit, for the purpose of ensuring the performance of the requirements, the applicant must provide to the City security in the form of cash or letter of credit for each tree to be replaced or retained in the amount specified in sections 25 and 26.
- (2) The total amount of security provided for any tree permit pursuant to subsection (1) shall not exceed \$50,000.00 per development site.

### **Security for Replacement Trees**

- 25 (1) Subject to subsection (2), the amount of security required for the provision, installation and maintenance of replacement trees, as may be required by this Bylaw, shall be:
- (a) for development related tree permit applications:
    - (i) \$2,000.00 per replacement tree of a species described in Part 1 or Part 3 of Schedule "E",
    - (ii) \$1,000.00 per replacement tree of a species described in Part 2 of Schedule "E", and
    - (iii) \$2,000.00 per 4 metres of hedge length when the replacement tree is a hedge;
  - (b) \$0 per tree when cash-in-lieu is being provided;
  - (c) \$0 per tree when, in accordance with section 20(7)(a), the removed tree or hedge is

- not being replaced; and
- (d) for all other tree permits, \$350.00 per tree or 4 metres of hedge length being provided as replacement.
- (2) Where an existing tree on the lot is counted as a replacement tree in accordance with section 20(5), the amount of the security required pursuant to this Bylaw for such replacement tree is 50% of the applicable amount from subsection (1).

### **Security for Retained Trees**

- 26 (1) The amount of security required for the protection of retained trees as may be required by this Bylaw, shall be:
- (a) \$10,000.00 per retained specimen tree, when the tree permit is development related,
  - (b) \$2,500.00 per retained protected tree that is not a specimen tree, when the tree permit is development related,
  - (c) \$2,500.00 per 4 metres of retained hedge length, when the tree permit is development related, and
  - (d) \$0 for all other tree permits.
- (2) Notwithstanding subsection (1), if a retained tree has no risk of being damaged by the proposed site disturbance, construction, or other action, and the Director is satisfied of the same, the amount of security required for that tree is \$0.

### **Release of Security**

- 27 (1) Subject to subsection (5), the City will release the security provided by the tree permit applicant for any replacement trees under this Bylaw by:
- (a) subject to subsection (2), releasing 50% of the security to the tree permit applicant upon the applicant providing written confirmation, in a form prescribed for that purpose by the Director, of the planting of the replacement tree, and
  - (b) releasing the remainder of the security to the tree permit applicant upon the applicant providing written confirmation, in a form prescribed for that purpose by the Director, that the replacement tree has been successfully maintained for at least one year after planting.
- (2) Where an existing tree on the lot was counted as a replacement tree in accordance with section 20(5), no security shall be released pursuant to subsection (1)(a).
- (3) For the purposes of subsection (1)(b), if the Director required a replacement tree plan as part of the tree permit application, the written confirmation must be provided by the applicant's arborist or landscape architect.
- (4) Subject to subsection (5), the City will release the security provided for any retained trees under this Bylaw to the tree permit applicant once all of the following conditions are satisfied:

- (a) all construction on the site is completed,
  - (b) a final occupancy permit for the lot has been issued by the City, if applicable, and
  - (c) the applicant's arborist has provided a report, including photographs, monitoring dates and supervision memos as evidence, to the satisfaction of the Director confirming that the retained trees have not been damaged in violation of this Bylaw and have been properly protected and maintained in accordance with this Bylaw and the tree permit.
- (5) The City may transfer any remaining security amount to the Tree Reserve if all of the requirements for release of security have not been satisfied within the lesser of:
- (a) two years from the date that all construction on the site is completed,
  - (b) two years from the date that a final occupancy permit for the lot has been issued, and
  - (c) five years from the date of issuance of the tree permit.
- (6) Notwithstanding any of the requirements of this section, if at any time an owner fails to comply with a provision of this Bylaw or a tree permit:
- (a) the City may take any required action or plant any replacement tree on the applicant's behalf, and the City may recover from the security provided the cost to the City of such action or planting, and if the cost to the City is more than the amount of security held by the City, then the City may recover the outstanding amount in accordance with this Bylaw; and
  - (b) the City may draw upon the security provided and transfer the amount into the Tree Reserve for the purpose of planting a tree on another site to replace the tree canopy lost.
- (7) Any trees planted through the use of money from the Tree Reserve may be planted on the same lot from which the tree canopy loss suffered or on a different lot in the City, and the tree may not be planted until a future cycle of City tree plantings.

## **PART 7 – GENERAL**

### **Inspections and Assessments**

- 28 (1) The Director or a City employee authorized by the Director may enter at all reasonable times on any property to make an assessment or inspection for any purpose under this Bylaw.
- (2) A person must not prevent or obstruct, or attempt to prevent or obstruct, an entry authorized under subsection (1).

### **Stop Work Orders**

- 29 (1) If any protected tree is being pruned, cut or damaged without a permit, contrary to a permit, or contrary to this Bylaw, a bylaw officer or the Manager of Urban Forest Services

may post a Stop Work notice in the form prescribed by the Director ordering the cessation of:

- (a) the pruning, cutting or damaging work, and
  - (b) any work within the protected root zone of the affected tree.
- (2) Every person who fails to comply with any order or notice issued by a bylaw officer or the Manager of Urban Forest Services, or who allows a violation of this Bylaw to continue, contravenes this Bylaw.
  - (3) The owner of a lot on which a Stop Work notice has been posted, and every other person having knowledge of the Stop Work notice shall immediately cease all tree pruning, cutting and damaging activity and all work within the protected root zone of the affected tree, and shall not resume until all applicable provisions of this Bylaw have been complied with and the Stop Work notice has been rescinded by a bylaw officer or the Manager of Urban Forest Services.

### **Recovery of Costs and Fees from Real Property Taxes**

- 30 The costs of fees and actions taken by the City under this Bylaw will be collected by the City in the same manner as real property taxes, and will be added as arrears of taxes if unpaid by December 31 in the year in which the costs are incurred.

### **Offences**

- 31 (1) A person commits an offence and is subject to the penalties imposed by this Bylaw, the Ticket Bylaw, and the *Offence Act* if that person
  - (a) contravenes a provision of this Bylaw,
  - (b) consents to, allows, or permits an act or thing to be done contrary to this Bylaw, or
  - (c) neglects or refrains from doing anything required by a provision of this Bylaw.
- (2) Each day that a contravention of a provision of this Bylaw continues is a separate offence.

### **Penalties**

- 32 Except as prescribed in the ticket bylaw,
  - (a) subject to subsections (b) and (c), the minimum penalty for an offence under this Bylaw is a fine of not less than \$500.00, and not more than \$50,000.00, per tree;
  - (b) any person who commits an offence under this Bylaw that results in the loss of a protected tree is subject to a fine of not less than \$5,000.00, and not more than \$50,000.00, per tree;
  - (c) any person who commits an offence under this Bylaw that results in the loss of a specimen tree is subject to a fine of not less than \$10,000, and not more than \$50,000, per tree.

### Severability

- 33 If any provision or part of this Bylaw is declared by any court or tribunal of competent jurisdiction to be illegal or inoperative, in whole or in part, or inoperative in particular circumstances, it shall be severed from the Bylaw and the balance of the Bylaw, or its application in any circumstances, shall not be affected and shall continue to be in full force and effect.

### Consequential Amendments to Ticket Bylaw

- 34 Bylaw No. 10-071, the Ticket Bylaw is amended as follows:

- (a) In the table of contents, by inserting the following new entry directly after “Schedule LL - Tree Preservation Bylaw Offences and Fines”:

“Schedule LL.1 - Tree Protection Bylaw Offences and Fines”.

- (b) In Schedule A, Bylaws and Enforcement Officers, by inserting the following new row immediately before current row 43, and renumbering all subsequent row numbers accordingly:

|    |                       |               |
|----|-----------------------|---------------|
| 43 | Tree Protection Bylaw | Bylaw Officer |
|----|-----------------------|---------------|

- (c) By inserting directly after Schedule LL the Schedule LL.1 attached to this Bylaw as “Appendix 1”.

## PART 8 – REPEAL, TRANSITION, COMMENCEMENT

### Definitions in Relation to this Part

- 35 In this Part:

“land use change” means: rezoning with an associated development permit; building permit; development permit; temporary use permit; development variance permit; heritage alteration permit; or board of variance order;

“tree plan” means a site plan, landscape plan, tree management plan or arborist report provided pursuant to the Tree Preservation Bylaw No. 05-106.

### Amendment to Tree Preservation Bylaw No. 05-106

- 36 The Tree Preservation Bylaw No. 05-106 is amended by striking out section 25 entirely and replacing it with the following:

“25. If the City received an application for any of the following on or before October 24, 2019, the Tree Preservation Bylaw as it was on the day before adoption of the Tree Preservation Bylaw, Amendment Bylaw (No. 1) No. 19-082 applies to that application: rezoning with an associated development permit; building permit; development permit; temporary use permit; development variance permit; heritage alteration permit; or board of variance order.”





ADOPTED on the

day of

2021

CITY CLERK

MAYOR

**SCHEDULE “A”**  
**TREE PERMIT APPLICATION FEES**

| <b>Row #</b> | <b>Tree Permit</b>  | <b>Fee</b>                    |
|--------------|---|-------------------------------|
| 1            | To only cut or remove any of the following trees:<br>i. a hazard tree<br>ii. a tree that is dead or has more than 50% of its crown dead<br>iii. a tree that is a regulated invasive plant or unregulated plant of concern | No fee                        |
| 2            | For emergency cutting or removal only   | No fee                        |
| 3            | To prune a tree only  | No fee                        |
| 4            | To plant any replacement trees to meet tree minimum only  | No fee                        |
| 5            | To undertake exploratory digging for the purposes of an arborist report only  | No fee                        |
| 6            | To cut or remove as required by Streets and Traffic Bylaw or Trees and Insect Control Bylaw   | No fee                        |
| 7            | To extend or modify a permit only   | \$50                          |
| 8            | To work in the protected root zone of the tree only, including excavation for development, utility installation, irrigation installation and landscape installation   | \$50                          |
| 9            | For any other tree permit, the fee is determined as follows:  |                               |
| 10           | i. For a lot that is less than or equal to 2,000m <sup>2</sup> in size  | \$50                          |
| 11           | ii. For a lot that is between 2000m <sup>2</sup> and 4000m <sup>2</sup> in size   | \$100                         |
| 12           | iii. For a lot that is equal to or larger than 4,000m <sup>2</sup>  | \$250 per 4,000m <sup>2</sup> |

## SCHEDULE “B”

### TREE SURVEY AND TREE MANAGEMENT PLAN REQUIREMENTS

#### A. Tree Survey

- 1 The purpose of the tree survey is to accurately locate the position of the trees on or adjacent to a property to establish ownership and to accurately establish the protected root zones of all trees and tree protection requirements for tree retention during development. It provides a clear visual of where buildings and infrastructure are located and where new buildings could be best sited to minimize negative impacts to trees suitable for retention. It is also useful to show phased tree protection fencing and mitigation that may differ between demolition and construction. **The tree survey should be used as the base for the tree management plan.**
- 2 The tree survey must comply with the following requirements:
  - (a) It must be based on a legal survey of the lot, completed by a registered BCLS surveyor, and can be added to the Site Plan for Existing Site as required by Development Services.
  - (b) It must include all of the following trees:
    - (i) Protected trees on the subject lot,
    - (ii) Retained trees on the subject lot,
    - (iii) Protected trees on adjacent properties with protected root zones or tree canopies extending onto the subject lot, or that would otherwise require tree protection, and
    - (iv) Trees on municipal frontage and any other municipal trees that may be impacted.
  - (c) It must indicate the existing trees in (b) with a scaled circle to represent the trunk and the reference ID located directly adjacent to the trunk. The canopy outline shall be indicated with a fine, dotted-line circle and the protected root zone shall be indicated with a bold, solid-line circle.
  - (d) It must include a sufficient number of elevation points so that areas where cuts or fills are required can be identified on future grading plans and the tree management plan.
  - (e) It must include the location and type of all existing utilities above and below grade entering or immediately adjacent to the subject site.
  - (f) It must include the existing and proposed legal description, property lines, rights-of-way, easements, location of trees, base grades of trees, grades at property lines, principal and accessory building footprints, walkways, patios, retaining walls (top and toe of grade), fences, driveways, sidewalks, curbs, natural features, rock outcrops, existing services (water, storm and sanitary sewer lines, hydro, telephone, cable, internet and gas lines, and any existing service kiosks and boxes).
  - (g) It must include all areas and trees protected by a restrictive covenant in favour of the City, indicating the purpose of the covenant and the land title registration number.
  - (h) It must have all dimensions in metric and include a title block with north arrow, bar scale, date, surveyor's seal and company name, and a legend to identify symbols.

- (i) It must date any revised plans.
  - (j) It must be provided in hard copy or pdf format and be of a scale to permit detailed information to be legible when printed in 11 x 17 format, including labels.
- 3 The BC Land Surveyors provide sample survey plans that may be a useful reference.

**B. Tree Management Plan**

- 1 The purpose of submitting the tree management plan is to show the location of trees along with their canopy spread and protected root zones in relation to proposed changes, so potential impacts can be analyzed and trees can be identified as retained or removed. Additionally, the tree management plan is used to show where tree protection fencing, arborist supervision, ground protection or other mitigation measures are required.
- 2 The tree management plan must comply with the following requirements:
  - (a) It must be prepared by a TRAQ arborist.
  - (b) It must be prepared with the tree survey as its basis and include the location of all inventoried trees.
  - (c) It must show all proposed changes including buildings, landscaping, hardscaping, and frontage works.
  - (d) It must show trees to be removed, indicated with a bold X through the survey point. The canopy outline shall be indicated with a fine, dotted-line circle and the protected root zone shall be indicated with a dashed-line circle.
  - (e) It must show trees to be retained, indicated at the survey point with a scaled circle to represent the trunk. The canopy outline shall be indicated with a fine, dotted-line circle and the protected root zone must be indicated with a bold, solid-line circle.
  - (f) It must show any works requiring arborist supervision or tree protection recommendations, and indicate the location where they apply.
  - (g) It must include a title block with north arrow, scale, date and company name, and a legend to identify symbols, all dimensions in metric.
  - (h) It must identify all inventoried onsite trees with unique, sequential reference ID numbers, in accordance with the arborist report and any corresponding development application plan information (e.g. engineering, architectural, landscape drawings).
  - (i) It must identify offsite trees in reports and plans as 'Offsite' trees with unique numbers (OS-##), and municipal frontage trees with unique numbers (M-##).
  - (j) It must date all plans and revisions.
- 3 The applicant must provide the arborist with up-to-date drawings and inform the arborist of any details for proposed changes to plans throughout the different stages of the development, including but not limited to rezoning, subdivision, development permit, and building permit demolition, excavation and construction.

**SCHEDULE “C”**  
**ARBORIST REPORT REQUIREMENTS**

Arborist Report Information

- 1 The purpose of the arborist report is to provide the necessary information to determine suitable trees for preservation, and to prescribe tree protection and mitigation measures, including the definition of specific areas and activities requiring arborist supervision.
- 2 The arborist report must be prepared by a TRAQ arborist in accordance with the City’s Terms of Reference for an Arborist Report for Development.
- 3 The arborist report must comply with the following requirements:
  - (a) It must include the following information:
    - (i) Name of arborist and company, address, phone number and email,
    - (ii) Proof of professional liability insurance,
    - (iii) Arborist ISA certification number and confirmation of TRAQ,
    - (iv) Name and contact information of client,
    - (v) Address of property, and
    - (vi) Date of site visit and date of when report was submitted, with any revisions to the report dated.
  - (b) It must include all of the following trees:
    - (i) Protected trees on the subject lot,
    - (ii) Replacement trees on the subject lot,
    - (iii) Protected trees on adjacent properties with protected root zones or tree canopies extending onto the subject lot, or that would otherwise require tree protection, and
    - (iv) Trees on municipal frontage and any other municipal trees that may be impacted.
  - (c) It must include unique, sequential reference IDs for all inventoried trees that correspond to the tree management plan. Onsite trees shall have a physical tag number affixed to the trunk, which will be the reference ID. For untagged trees, the following prefixes will be used: offsite (OS-##), and municipal (M-##).
  - (d) It must include a description of proposed work and, when applicable, proposed development on the lot including all hardscape, landscape, hydrology and grade changes, all proposed frontage work, and all underground and overhead utility services.
  - (e) It must include recommendations for tree protection and mitigation measures for all project phases, including demolition, site excavation, site preload, construction, project and material staging, servicing, landscaping, grading, or any site disturbance. Recommendations must treat all trees as being retained for all phases prior to the issuance of the building permit for construction and tree removal permit regardless of whether they are planned to be removed. They must include:

- (i) Tree protection fencing locations,
  - (ii) Specific activities and areas when arborist supervision is required,
  - (iii) Site access routes,
  - (iv) Material storage areas,
  - (v) Any pruning that may be required to provide clearance,
  - (vi) Post-construction tree care measures, and
  - (vii) Other necessary mitigation measures.
- (f) It must include a list of other consulting agency documents that inform the tree assessment, including the version and date of such documents (e.g. lot layout plans, servicing plans, biologist reports).
- (g) It must include a tree inventory table, providing information on each tree identified pursuant to subsection (b), which shall include the following columns:
  - (i) Tree ID,
  - (ii) species,
  - (iii) bylaw status (bylaw, non-bylaw, municipal),
  - (iv) DBH (cm),
  - (v) PRZ (m radius from trunk),
  - (vi) canopy spread (diameter and m from trunk),
  - (vii) structural condition (poor, fair, good),
  - (viii) health condition (poor, fair, good),
  - (ix) retention suitability (suitable, unsuitable),
  - (x) species tolerance to disturbance (poor, moderate, good),
  - (xi) remove or retain,
  - (xii) specific reason for removal, if applicable, and
  - (xiii) comments (including prune or cut), and location.
- (l) It must include site photos that:
  - (i) capture the context of inventoried trees on the site,
  - (ii) capture individual trees when there are specific considerations or conditions of concern for that tree that are addressed in the arborist report,
  - (iii) are labelled as numbered figures with captions describing any numbered tree tags, direction of photo, and description of what it is pictured, and
  - (iv) are marked up with tree tag numbers for each tree if multiple trees are shown,
- (m) It must include a tree impact summary table counting the total number of trees, the

number of trees to be removed, the number of trees being planted or replaced, and the number of existing non-protected trees that are being counted as replacements as shown in the example below:

|                    | <b>A</b>                          | <b>B</b>                        | <b>C</b>  | <b>D</b>   |                             |
|--------------------|-----------------------------------|---------------------------------|---|--|-----------------------------|
| <b>Tree Status</b> | <b>Total # of Protected Trees</b> | <b># of Trees to be REMOVED</b> | <b># of NEW or REPLACEMENT Trees to be Planted*</b> | <b># of EXISTING Non-protected Trees Counted as Replacements</b> | <b>NET CHANGE (A-B+C+D)</b> |
| Onsite trees       |                                   |                                 |   |  |                             |
| Offsite trees      |                                   |                                 |   |  |                             |
| Municipal trees    |                                   |                                 | N/A   | N/A  |                             |
| <b>Total</b>       |                                   |                                 |   |  |                             |

\* Sufficient soil volume to support the proposed new or replacement trees must be provided on site and demonstrated by the calculations made in Schedule E (g). If soil volume is insufficient, replacement trees will not be permitted.

- (n) It must include a summary table counting replacement trees required, tree minimum, and calculating cash-in-lieu amounts, as shown in the example below:

|   | <b>Count</b> | <b>Multiplier</b> | <b>Total</b> |
|---|--------------|-------------------|--------------|
| <b>ONSITE Minimum replacement tree requirement</b>                                    |              |                   |              |
| A. Protected trees removed  |              | X 1               | A.           |
| B. Replacement trees proposed per Schedule "E", Part 1                                |              | X 1               | B.           |
| C. Replacement trees proposed from Schedule "E", Part 2                               |              | X 0.5             | C.           |
| D. Replacement trees proposed per Schedule "E", Part 3                                |              | X 1               | D.           |
| E. Total replacement trees proposed (B+C+D) <i>Round down to nearest whole number</i> |              |                   | E.           |
| F. Onsite replacement tree deficit (A-E) <i>Record 0 if negative number</i>           |              |                   | F.           |
| <b>ONSITE Minimum trees per lot requirement (onsite trees)</b>                        |              |                   |              |
| G. Tree minimum on lot*   |              |                   | G.           |
| H. Protected trees retained (other than specimen trees)                               |              | X 1               | H.           |
| I. Specimen trees retained  |              | X 3               | I.           |
| J. Trees per lot deficit (G-(B+C+H+I)) <i>Record 0 if negative number</i>             |              |                   | J.           |
| <b>OFFSITE Minimum replacement tree requirement (offsite trees)</b>                   |              |                   |              |
| K. Protected trees removed  |              | X 1               | K.           |
| L. Replacement trees proposed per   |              | X 1               | L.           |

|  |  |       |    |
|--|--|-------|----|
| Schedule "E", Part 1 or Part 3   |  |       |    |
| M. Replacement trees proposed from Schedule "E", Part 2  |  | X 0.5 | M. |
| N. Total replacement trees proposed (L+M) <i>Round down to nearest whole number</i>              |  |       | N. |
| O. Offsite replacement tree deficit (K-N) <i>Record 0 if negative number</i>                     |  |       | O. |
| <b>Cash-in-lieu requirement</b>  |  |       |    |
| P. Onsite trees proposed for cash-in-lieu <i>Enter F. or J., whichever is the greater number</i> |  |       | P. |
| Q. Offsite trees proposed for cash-in-lieu <i>Enter O.</i>                                       |  |       | Q. |
| R. Cash-in-lieu proposed ((P+Q) X \$2,000)   |  |       | R. |

\* Refer to Schedule "F"

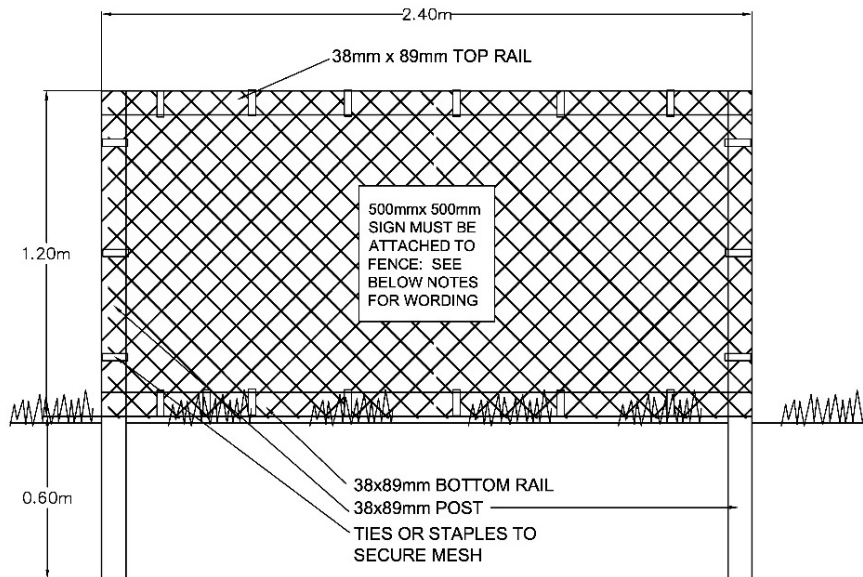
- (o) It must include the signature of the arborist.
  - (p) It must either:
    - (i) be dated within one year of the tree permit application date, or
    - (ii) have a covering letter from the original author stating that they have visited the site and the conditions and recommendations contained in the original report remain valid.
  - (q) Any revisions or amendments to an existing arborist report must be made to the original report and all changes identified.
- 4 Where the original arborist report submitted to the City is incomplete or inaccurate, the Director may:
- (a) retain the services of an independent arborist or other professional to review an arborist report, and
  - (b) the cost of the independent arborist report must be paid by the owner prior to issuance of the tree permit.



## SCHEDULE "D"

### TREE PROTECTION BARRIER REQUIREMENTS

- 1 The requirements for tree protection barriers are as follows:
  - (a) The barrier must be placed around the outside of the protected root zone of the tree, or as approved by the Director; and
  - (b) The barrier must meet the following specifications:
    - (i) it must have a minimum height of 1.2 m,
    - (ii) 38 mm x 89 mm timbers must be used for vertical posts, top and bottom rails (in rocky areas, metal posts (T-bar or rebar) drilled into rock will be accepted), and cross-bracing (in an "X"),
    - (iii) spacing between vertical posts must be a maximum of 3.0 metres on center,
    - (iv) the structure must be sturdy with vertical posts driven firmly into the ground,
    - (v) there must be continuous plastic mesh high visibility screening (e.g. orange snow fencing), and
    - (vi) it must have visible all weather 500 mm x 500 mm signage on it with the wording "Warning – Tree Protection Area".
- 2 Below is an example showing an acceptable barrier:



**SCHEDULE “E”****REPLACEMENT TREE REQUIREMENTS****A. Replacement Tree Plan**

- 1 The purpose of the replacement tree plan is to show where new trees will be planted on site as replacements for protected trees. It must identify all protected trees that are to be retained, and the species and location of all proposed replacement trees.
- 2 The replacement tree plan must:
  - (a) Be prepared by an arborist or landscape architect.
  - (b) Show trees to be retained.
  - (c) Show the location and species of proposed replacement trees consistent with the requirements in Schedule E, Part 4 Siting.
  - (d) Include a title block with north arrow, bar scale, date and company name, and a legend to identify symbols.
  - (e) Date all plans and revisions.
  - (f) Define connected areas of soil where tree roots could reasonably grow as ‘Planting Areas’. A Planting Area is defined by the estimated extent of connected soil volume on or adjacent to the lot. Where there is a barrier to root growth between two areas of soil, then each area of soil would be a separate Planting Area. Each Planting Area must be assigned a unique number.
  - (g) Include a table as shown in the example below calculating the estimated soil volume that will be provided for each Planting Area.

|  |                             |                                |                                 | <b>Replacement Trees Proposed</b> |                    |                  | <b>Soil Volume Required (m<sup>3</sup>)</b> |                              |                              |                 |
|--|-----------------------------|--------------------------------|---------------------------------|-----------------------------------|--------------------|------------------|---|------------------------------|------------------------------|-----------------|
| <b>Planting Area ID</b>                  | <b>Area (m<sup>2</sup>)</b> | <b>Soil volume multiplier*</b> | <b>A. Estimated soil volume</b> | <b>B. #Small</b>                  | <b>C. # Medium</b> | <b>D. #Large</b> | <b>E. Small</b>                             | <b>F. Medium</b>             | <b>G. Large</b>              | <b>Total **</b> |
| <b>Onsite</b>                            |                             |                                |                                 |                                   |                    |                  |   |                              |                              |                 |
| Planting Area X                          |                             |                                |                                 |                                   |                    |                  |   |                              |                              |                 |
| <b>Offsite (excluding City property)</b> |                             |                                |                                 |                                   |                    |                  |   |                              |                              |                 |
| Planting Area OSA X                      |                             |                                |                                 |                                   |                    |                  |   |                              |                              |                 |
| <b>Calculation Instructions</b>          |                             |                                |                                 |                                   |                    |                  | <b>E</b>                                    | <b>F</b>                     | <b>G</b>                     | <b>Total</b>    |
| Calculation                              |                             |                                |                                 |                                   |                    |                  | If B=1, Bx8<br>If B>1, Bx6                  | If C=1, Cx20<br>If C>1, Cx15 | If D=1, Dx35<br>If D>1, Dx30 | E+F+G           |

\* On ground (excluding exposed bedrock): use 1, On structure: use depth of soil, On soil cells: use 0.92, On structural soil: use 0.2

\*\* Total must not exceed A. If Total exceeds A, then the number or size of proposed replacement trees must be reduced.

B. Part 1 – Replacement species acceptable for 1:1 replacement

| Genus          | Species      | Cultivated Variety | Common Name                      | Class               | Size   |
|----------------|--------------|--------------------|----------------------------------|---------------------|--------|
| Abies          | nordmanniana |                    | Nordmann fir                     | Conifer             | Large  |
| Abies          | balsamea     |                    | Balsam fir                       | Conifer             | Medium |
| Abies          | fraseri      |                    | Fraser fir                       | Conifer             | Medium |
| Abies          | concolor     |                    | White fir                        | Conifer             | Medium |
| Acer           | macrophyllum |                    | Big Leaf maple                   | Deciduous           | Large  |
| Acer           | saccharum    |                    | Sugar maple                      | Deciduous           | Large  |
| Acer           | miyabei      | Rugged Ridge       | Rugged Ridge maple               | Deciduous           | Medium |
| Acer           | rubrum       | Armstrong          | Armstrong maple                  | Deciduous           | Medium |
| Acer           | rubrum       |                    | Red maple                        | Deciduous           | Medium |
| Acer           | saccharum    | Legacy             | Legacy sugar maple               | Deciduous           | Medium |
| Acer           | truncatum    | Crimson Sunset     | Pacific Sunset maple             | Deciduous           | Medium |
| Aesculus       | indica       |                    | Indian horse chestnut            | Deciduous           | Medium |
| Aesculus       | X carnea     | Briotii            | Red horse chestnut               | Deciduous           | Medium |
| Alnus          | rubra        |                    | Red alder                        | Deciduous           | Large  |
| Arbutus        | menziesii    |                    | Arbutus                          | Broadleaf evergreen | Medium |
| Betula         | nigra        | Dura Heat          | Dura Heat birch                  | Deciduous           | Medium |
| Calocedrus     | deccurens    |                    | Incense cedar                    | Conifer             | Large  |
| Carpinus       | betulus      | Fastigiata         | Pyramidal hornbeam               | Deciduous           | Medium |
| Castanea       | mollissima   |                    | Chinese chestnut                 | Deciduous           | Medium |
| Catalpa        | bignonioides |                    | Southern catalpa                 | Deciduous           | Large  |
| Catalpa        | speciosa     |                    | Northern catalpa                 | Deciduous           | Medium |
| Celtis         | occidentalis |                    | Common hackberry                 | Deciduous           | Medium |
| Cercidiphyllum | japonicum    |                    | Japanese katsura tree            | Deciduous           | Medium |
| Cladrastis     | kentukea     |                    | American yellowwood              | Deciduous           | Medium |
| Cladrastis     | kentukea     | Perkins Pink       | Perkins Pink American yellowwood | Deciduous           | Medium |
| Cornus         | nuttallii    |                    | Pacific dogwood                  | Deciduous           | Medium |
| Corylus        | colurna      |                    | Turkish filbert                  | Deciduous           | Medium |
| Cryptomeria    | japonica     |                    | Japanese cedar                   | Conifer             | Large  |
| Cupressus      | nootkatensis |                    | Yellow cedar                     | Conifer             | Large  |
| Fagus          | sylvatica    | Asplenifolia       | Fern leaved beech                | Deciduous           | Large  |
| Fagus          | sylvatica    | Pendula            | Weeping beech                    | Deciduous           | Large  |
| Fagus          | sylvatica    |                    | European beech                   | Deciduous           | Large  |
| Fagus          | sylvatica    | Riversii           | Riversii beech                   | Deciduous           | Medium |
| Fraxinus       | americana    | Autumn Purple      | Autumn Purple white ash          | Deciduous           | Large  |

| Genus        | Species           | Cultivated Variety | Common Name             | Class             | Size   |
|--------------|-------------------|--------------------|-------------------------|-------------------|--------|
| Fraxinus     | latifolia         |                    | Oregon ash              | Deciduous         | Large  |
| Fraxinus     | pennsylvanica     |                    | Green ash               | Deciduous         | Large  |
| Fraxinus     | americana         | Autumn Applause    | Autumn Applause ash     | Deciduous         | Medium |
| Ginkgo       | biloba            | Princeton Sentry   | Princeton Sentry ginkgo | Deciduous         | Large  |
| Ginkgo       | biloba            |                    | Maidenhair tree         | Deciduous         | Large  |
| Gleditsia    | triacanthos       |                    | Honey locust            | Deciduous         | Medium |
| Gleditsia    | triacanthos       | Shademaster        | Shademaster locust      | Deciduous         | Medium |
| Gymnocladus  | dioicus           |                    | Kentucky coffeetree     | Deciduous         | Large  |
| Gymnocladus  | dioicus           | Espresso           | Espresso coffeetree     | Deciduous         | Large  |
| Juglans      | nigra             |                    | Black walnut            | Deciduous         | Large  |
| Juglans      | regia             |                    | English walnut          | Deciduous         | Large  |
| Larix        | decidua           |                    | European larch          | Deciduous conifer | Large  |
| Liquidambar  | styraciflua       |                    | Sweetgum                | Deciduous         | Large  |
| Liquidambar  | styraciflua       | Worplesdon         | Worplesdon sweetgum     | Deciduous         | Large  |
| Liriodendron | tulipifera        | Arnoldii           | Arnold tulip tree       | Deciduous         | Large  |
| Liriodendron | tulipifera        |                    | Tulip tree              | Deciduous         | Large  |
| Magnolia     | accuminata        | Yellow Bird        | Yellow Bird magnolia    | Deciduous         | Medium |
| Magnolia     | kobus             |                    | Kobus magnolia          | Deciduous         | Medium |
| Malus        | fusca             |                    | Pacific crabapple       | Deciduous         | Medium |
| Metasequoia  | glyptostroboideus |                    | Dawn redwood            | Deciduous conifer | Large  |
| Nyssa        | sylvatica         |                    | Tupelo                  | Deciduous         | Medium |
| Ostrya       | virginiana        |                    | Ironwood                | Deciduous         | Medium |
| Picea        | abies             |                    | Norway spruce           | Conifer           | Large  |
| Picea        | orientalis        |                    | Oriental spruce         | Conifer           | Large  |
| Pinus        | densiflora        |                    | Japanese red pine       | Conifer           | Medium |
| Pinus        | thunbergii        |                    | Japanese black pine     | Conifer           | Medium |
| Pinus        | contorta          | Contorta           | Shore pine              | Conifer           | Medium |
| Populus      | tremuloides       |                    | Quaking aspen           | Deciduous         | Medium |
| Pseudotsuga  | menziesii         |                    | Douglas fir             | Conifer           | Large  |
| Quercus      | garryana          |                    | Garry oak               | Deciduous         | Large  |
| Quercus      | robur             |                    | English Oak             | Deciduous         | Large  |
| Quercus      | bicolor           |                    | Swamp white oak         | Deciduous         | Large  |
| Quercus      | coccinea          |                    | Scarlett oak            | Deciduous         | Large  |
| Quercus      | dentata           |                    | Japanese Emperor oak    | Deciduous         | Large  |
| Quercus      | macrocarpa        |                    | Bur oak                 | Deciduous         | Large  |
| Quercus      | phellos           |                    | Willow oak              | Deciduous         | Large  |

| Genus         | Species      | Cultivated Variety | Common Name           | Class             | Size   |
|---------------|--------------|--------------------|-----------------------|-------------------|--------|
| Quercus       | rubra        |                    | Red oak               | Deciduous         | Large  |
| Quercus       | frainetto    |                    | Hungarian oak         | Deciduous         | Medium |
| Quercus       | robur        | Fastigiata         | Pyramidal English oak | Deciduous         | Medium |
| Robinia       | pseudoacacia |                    | Black locust          | Deciduous         | Large  |
| Robinia       | pseudoacacia | Frisia             | Golden Black Locust   | Deciduous         | Medium |
| Salix         | lasiandra    |                    | Pacific willow        | Deciduous         | Medium |
| Styphnolobium | japonicum    |                    | Japanese pagodatree   | Deciduous         | Large  |
| Taxodium      | distichum    |                    | Baldcypress           | Deciduous conifer | Large  |
| Tilia         | cordata      |                    | Little leaf linden    | Deciduous         | Large  |
| Tilia         | americana    |                    |                       | Deciduous         | Large  |
| Ulmus         | americana    | Brandon            | Brandon elm           | Deciduous         | Medium |
| Ulmus         | parvifolia   |                    | Lacebark elm          | Deciduous         | Medium |
| Zelkova       | serrata      | Green Vase         | Green Vase zelkova    | Deciduous         | Medium |
| Zelkova       | serrata      |                    | Japanese zelkova      | Deciduous         | Medium |

Or another species acceptable to the Director that has a height at maturity of greater than 10.0 m

C. Part 2 – Replacement species acceptable for 2:1 replacement

| Genus        | Species       | Cultivated Variety | Common Name                | Class               | Size  |
|--------------|---------------|--------------------|----------------------------|---------------------|-------|
| Acer         | davidii       |                    | David's maple              | Deciduous           | Small |
| Acer         | truncatum     |                    | Shangtung maple            | Deciduous           | Small |
| Acer         | griseum       |                    | Paperbark maple            | Deciduous           | Small |
| Chitalpa     | tashkentensis |                    | Chitalpa                   | Deciduous           | Small |
| Cornus       | kousa         | Satomi             | Satomi dogwood             | Deciduous           | Small |
| Cornus       | X Venus       | Venus              | Venus dogwood              | Deciduous           | Small |
| Crataegus    | douglasii     |                    | Black hawthorn             | Deciduous           | Small |
| Davidia      | involucrata   |                    | Hankerchief tree           | Deciduous           | Small |
| Frangula     | purshiana     |                    | Cascara                    | Deciduous           | Small |
| Koelreuteria | paniculata    |                    | Goldenraintree             | Deciduous           | Small |
| Maackia      | amurensis     |                    | Amur mackia                | Deciduous           | Small |
| Magnolia     | x Galaxy      |                    | Galaxy magnolia            | Deciduous           | Small |
| Magnolia     | grandiflora   | Victoria           | Victoria magnolia          | Broadleaf evergreen | Small |
| Oxydendrum   | arboreum      |                    | Sourwood                   | Deciduous           | Small |
| Parrotia     | persica       |                    | Persian ironwood           | Deciduous           | Small |
| Parrotia     | persica       | Ruby Vase          | Ruby Vase persian Ironwood | Deciduous           | Small |

| Genus         | Species        | Cultivated Variety | Common Name          | Class               | Size  |
|---------------|----------------|--------------------|----------------------|---------------------|-------|
| Phellodendron | amurense       |                    | Amur cork tree       | Deciduous           | Small |
| Pistacia      | chinensis      |                    | Chinese pistache     | Deciduous           | Small |
| Prunus        | sargentii      |                    | Sargent's cherry     | Deciduous           | Small |
| Quercus       | ilex           |                    | Holly oak            | Broadleaf evergreen | Small |
| Sorbus        | x hybridia     |                    | Oakleaf mountain ash | Deciduous           | Small |
| Stewartia     | pseudocamellia |                    | Japanese stewartia   | Deciduous           | Small |
| Styrax        | obassia        |                    | Fragrant snowbell    | Deciduous           | Small |
| Taxus         | brevifolia     |                    | Pacific yew          | Deciduous           | Small |

Or another species acceptable to the Director that has a height at maturity of less than 10.0 m

**D. Part 3 – Replacement species acceptable for 1:1 replacement for trees above structures**

**Where the soil volume available on structure is 6.0 m<sup>3</sup> per tree or more:**

| Genus      | Species       | Cultivated Variety | Common Name                | Class               |
|------------|---------------|--------------------|----------------------------|---------------------|
| Acer       | griseum       |                    | Paperbark maple            | Deciduous           |
| Chitalpa   | tashkentensis |                    | Chitalpa                   | Deciduous           |
| Cornus     | kousa         | Satomi             | Satomi dogwood             | Deciduous           |
| Cornus     | X Venus       | Venus              | Venus dogwood              | Deciduous           |
| Crataegus  | douglasii     |                    | Black hawthorn             | Deciduous           |
| Maackia    | amurensis     |                    | Amur mackia                | Deciduous           |
| Magnolia   | x Galaxy      |                    | Galaxy magnolia            | Deciduous           |
| Magnolia   | grandiflora   | Victoria           | Victoria magnolia          | Broadleaf evergreen |
| Oxydendrum | arboreum      |                    | Sourwood                   | Deciduous           |
| Parrotia   | persica       |                    | Persian ironwood           | Deciduous           |
| Parrotia   | persica       | Ruby Vase          | Ruby Vase persian Ironwood | Deciduous           |
| Sorbus     | x hybridia    |                    | Oakleaf mountain ash       | Deciduous           |
| Styrax     | obassia       |                    | Fragrant snowbell          | Deciduous           |
| Taxus      | brevifolia    |                    | Pacific yew                | Deciduous           |

**In addition to the previous species, where the soil volume available on structure is 10.0 m<sup>3</sup> per tree or more:**

| Genus         | Species    | Cultivated Variety | Common Name       | Class     |
|---------------|------------|--------------------|-------------------|-----------|
| Acer          | davidii    |                    | David's maple     | Deciduous |
| Koelreuteria  | paniculata |                    | Goldenraintree    | Deciduous |
| Malus         | fusca      |                    | Pacific crabapple | Deciduous |
| Phellodendron | amurense   |                    | Amur cork tree    | Deciduous |

| Genus   | Species | Cultivated Variety | Common Name | Class               |
|---------|---------|--------------------|-------------|---------------------|
| Quercus | ilex    |                    | Holly oak   | Broadleaf evergreen |

In addition to the previous species, where the soil volume available on structure is 15.0 m<sup>3</sup> per tree or more:

| Genus    | Species    | Cultivated Variety | Common Name          | Class     |
|----------|------------|--------------------|----------------------|-----------|
| Acer     | miyabei    | Rugged Ridge       | Rugged Ridge maple   | Deciduous |
| Magnolia | accuminata | Yellow Bird        | Yellow Bird magnolia | Deciduous |
| Magnolia | kobus      |                    | Kobus magnolia       | Deciduous |
| Pinus    | densiflora |                    | Japanese red pine    | Conifer   |
| Pinus    | thunbergii |                    | Japanese black pine  | Conifer   |
| Pinus    | contorta   | Contorta           | Shore pine           | Conifer   |

Or, for any of the above soil volumes, another species acceptable to the Director that is likely to flourish in the soil volume provided on the structure

E. Part 4 – Requirements for siting, soil volume, timing of planting, and size of stock

**Siting**

- 1 Replacement trees must be planted:
  - (a) At least 2.0 m away from a building foundation wall,
  - (b) At least 1.0 m away from any property line of a lot, above and underground utility, driveway or other paved surface, and
  - (c) In a location approved by the Director.
- 2 Every replacement tree must be spaced from existing trees and other replacement trees in accordance with the table below to ensure the best chance of survival of the replacement and existing trees.

| Row # | Tree Size                          | Min spacing |
|-------|------------------------------------|-------------|
| 1     | Small tree (Schedule "E", Part 2)  | 2.0 m       |
| 2     | Medium tree (Schedule "E", Part 1) | 4.0 m       |
| 3     | Large tree (Schedule "E", Part 1)  | 6.0 m       |

**Soil volume**

- 3 The applicant must demonstrate that appropriate soil volume will be provided for any

replacement tree in accordance with the recommended targets in Schedule “E”, Parts 1, 2 and 3 or as approved by the Director.

| Row # | Tree Size                          | Min soil volume (m <sup>3</sup> ) | Shared or irrigated soil volume (m <sup>3</sup> ) |
|-------|------------------------------------|-----------------------------------|---|
| 1     | Small tree (Schedule “E”, Part 2)  | 8.0                               | 6.0   |
| 2     | Medium tree (Schedule “E”, Part 1) | 20.0                              | 15.0  |
| 3     | Large tree (Schedule “E”, Part 1)  | 35.0                              | 30.0  |

- 4 Soil volume shall be calculated as:
  - (a) On ground: Surface area (Length x Width) of connected pervious x 1
  - (b) On structure:
    - (i) Soil: Volume of soil (Length x Width x Depth)
    - (ii) Soil cells: Volume of soil cell installation (Length x Width x Depth) x 0.92
    - (iii) Structural soil: Volume of structural soil (Length x Width x Depth) x 0.2
- 5 Replacement trees must meet the applicable plant condition and structure requirements set out in the latest edition of the CNLA/CSLA “Canadian Landscape Standard” and the CNLA “Canadian Nursery Stock Standard”.

### Timing of planting

- 6 Replacement trees must be planted during the suitable local planting seasons generally defined as fall (September – November) and spring (February – April).
- 7 Despite section 6, where planting must occur outside of the prescribed time periods, then a strategy for ensuring the trees are watered (in the summer) and appropriately cared for must be included as part of the tree permit application.

### Size of stock

- 8 Replacement trees must be:
  - (a) For sites of development related tree permits, a minimum of 6.0 cm caliper at time of planting for deciduous trees, and a minimum of 2.0 m in height for coniferous trees, or
  - (b) For all other sites, a minimum 4.0 cm caliper or 10 gallon pot size for deciduous trees, and a minimum of 1.5 m in height for coniferous trees, except for the tree species *Arbutus menziesii*, which must be contained in a #5 pot when acquired from a nursery or a landscaper-supplier, or
  - (c) Despite the above subsections, replacement trees may be of a comparable size approved by the Director if obtaining the above sizes is not possible.



**SCHEDULE “F”**  
**MINIMUM NUMBER OF TREES REQUIRED PER LOT**

The number of trees required per lot is determined by lot area as follows:

| <b>Row #</b> | <b>Area (m<sup>2</sup>)</b> | <b>Trees Required</b> |
|--------------|-----------------------------|-----------------------|
| 1            | <300                        | 1                     |
| 2            | 300 - 499                   | 2                     |
| 3            | 500 - 699                   | 3                     |
| 4            | 700 - 899                   | 4                     |
| 5            | 900 - 1099                  | 5                     |
| 6            | 1100 - 1299                 | 6                     |
| 7            | 1300 - 1499                 | 7                     |
| 8            | 1500 - 1699                 | 8                     |
| 9            | 1700 - 1899                 | 9                     |
| 10           | 1900 - 2099                 | 10                    |
| 11           | 2100 - 2299                 | 11                    |
| 12           | 2300 - 2499                 | 12                    |
| 13           | 2500 - 2699                 | 13                    |
| 14           | 2700 - 2899                 | 14                    |
| 15           | 2900 - 3099                 | 15                    |
| 16           | 3100 - 3299                 | 16                    |
| 17           | 3300 - 3499                 | 17                    |
| 18           | 3500 - 3699                 | 18                    |
| 19           | 3700 - 3899                 | 19                    |
| 20           | 3900 - 4099                 | 20                    |
| 21           | 4100 - 4299                 | 21                    |
| 22           | 4300 - 4499                 | 22                    |
| 23           | 4500 - 4699                 | 23                    |
| 24           | 4700 - 4899                 | 24                    |
| 25           | 4900 - 5099                 | 25                    |
| 26           | 5100 - 5299                 | 26                    |

|    |              |  |
|----|--------------|--|
| 27 | 5300 - 5499  | 27   |
| 28 | 5500 - 5699  | 28   |
| 29 | 5700 - 5899  | 29   |
| 30 | 5900 - 6099  | 30   |
| 31 | 6100 - 6299  | 31   |
| 32 | 6300 - 6499  | 32   |
| 33 | 6500 - 6699  | 33   |
| 34 | 6700 - 6899  | 34   |
| 35 | 6900 - 7099  | 35   |
| 36 | 7100 - 7299  | 36   |
| 37 | 7300 - 7499  | 37   |
| 38 | 7500 - 7699  | 38   |
| 39 | 7700 - 7899  | 39   |
| 40 | 7900 - 8099  | 40   |
| 41 | 8100 - 8299  | 41   |
| 42 | 8300 - 8499  | 42   |
| 43 | 8500 - 8699  | 43   |
| 44 | 8700 - 8899  | 44   |
| 45 | 8900 - 9099  | 45   |
| 46 | 9100 - 9299  | 46   |
| 47 | 9300 - 9499  | 47   |
| 48 | 9500 - 9699  | 48   |
| 49 | 9700 - 9899  | 49   |
| 50 | 9900 - 10099 | 50   |
| 51 | >10099       | <p>The following formula applies,<br/>rounded to the nearest integer:</p> $\frac{\text{Lot area (m}^2\text{)}}{200}$ |

**SCHEDULE “G”**  
**LETTER OF ASSURANCE REQUIREMENTS**

- 1 The purpose of the letter of assurance is to list and describe the specific areas or activities requiring arborist supervision as prescribed in the arborist report and confirm that the arborist and owner agree that the arborist will be onsite to supervise these specific areas or activities. An arborist must be onsite for activities described in the arborist report, whenever work occurs in or around the protected root zone of a protected tree and when a tree protection barrier is removed.
- 2 The letter of assurance must be from the arborist and the owner to the City, and state that the arborist will perform or supervise work in specific areas or activities described in the arborist report, and may include, but is not limited to, specifications regarding:
  - (a) pre-construction treatment of trees, including root and branch pruning,
  - (b) in-construction tree protection measures including mulching, ground protection, irrigation and decompaction treatments,
  - (c) regular on-site inspections during construction, and reporting any violation of this Bylaw to the Director,
  - (d) restorative landscape treatment, including soil renovation,
  - (e) selection and planting of any replacement trees required under this Bylaw, and
  - (f) a post-construction inspection of the site.
- 3 The letter of assurance must include statements confirming that the arborist will prepare:
  - (a) Site supervision memos that document each arborist supervision visit, including what was supervised, any damage observed, and photos showing the site before work starts, during work and after work is completed for each area or activity listed in the letter of assurance,
  - (b) Impact assessments detailing observed or suspected damage and mitigation options if required by the Director, and
  - (c) A post-construction report upon completion of all construction that confirms all supervision visits, impact assessments and mitigation works were completed in accordance with the approved arborist report, letter of assurance, or impact assessment, certified correct by the arborist and supported by site supervision memos, for submission in a timely manner to the Director.
- 4 The letter of assurance must include a statement acknowledging that it is the owner’s responsibility to coordinate the arborist to be on-site per the letter of assurance requirements and that failure to follow any requirements in the letter of assurance is considered a violation of the tree permit for the site.
- 5 The letter of assurance must be signed by the arborist and owner.

**[END OF TREE PROTECTION BYLAW]**

**APPENDIX 1****Schedule LL****Tree Protection Bylaw  
Offences and Fines**

| Item # | Column 1 – Offence  | Column 2 – Section | Column 3 – Set Fine | Column 4 – Fine if paid within 30 days |
|--------|---|--------------------|---------------------|--|
| 1      | Cut/damage/prune/<br>remove tree in conflict<br>with Bylaw                  | 4(1)               | \$1,000.00          | \$850.00                               |
| 2      | Cut/damage/prune/<br>remove tree in conflict<br>with tree permit            | 4(1)(b)            | \$1,000.00          | \$850.00                               |
| 3      | Not comply with Bylaw   | 4(2)               | \$1,000.00          | \$850.00                               |
| 4      | Not comply with tree<br>permit  | 4(3)               | \$1,000.00          | \$850.00                               |
| 5      | Alter/falsify/<br>misrepresent<br>information on tree<br>permit/application | 4(4)               | \$300.00            | \$250.00                               |
| 6      | Fail to obtain tree<br>permit to cut/prune/<br>remove                       | 5(1)               | \$300.00            | \$250.00                               |
| 7      | Fail to obtain tree<br>permit for replacement                               | 5(2)               | \$300.00            | \$250.00                               |
| 8      | Fail to provide<br>information to Director                                  | 6(1)               | \$300.00            | \$250.00                               |
| 9      | Fail to apply for tree<br>permit for construction<br>or disturbing site     | 6(2)               | \$300.00            | \$250.00                               |
| 10     | Fail to comply with tree<br>permit conditions                               | 9(2)               | \$1,000.00          | \$1,000.00                             |
| 11     | Fail to provide evidence<br>of emergency                                    | 15(2)(a)           | \$1,000.00          | \$850.00                               |
| 12     | Fail to take action to<br>obtain tree permit                                | 15(2)(b)           | \$300.00            | \$250.00                               |
| 13     | Removal of tree<br>remains before<br>Director's determination               | 15(3)              | \$175.00            | \$125.00                               |
| 14     | Fail to replace tree<br>removed in emergency                                | 15(4)              | \$750.00            | \$750.00                               |
| 15     | Cut/prune/remove<br>when tree is not failing                                | 15(5)              | \$1,000.00          | \$1,000.00                             |
| 16     | Fail to prune/cut/<br>remove when required<br>by Director                   | 16(1)              | \$175.00            | \$125.00                               |
| 17     | Fail to identify trees for<br>removal                                       | 17(1)              | \$250.00            | \$200.00                               |

|    |   |          |            |          |
|----|---|----------|------------|----------|
| 18 | Fail to post public notice as required                        | 17(2)    | \$150.00   | \$125.00 |
| 19 | Fail to dispose of tree parts as required                     | 17(3)    | \$125.00   | \$75.00  |
| 20 | Fail to cut/prune/remove/retain/replace tree in best practice | 18(1)    | \$750.00   | \$650.00 |
| 21 | Construction/site disturbance without tree protection         | 18(2)(a) | \$750.00   | \$650.00 |
| 22 | Construction/site disturbance without Director approval       | 18(2)(b) | \$750.00   | \$650.00 |
| 23 | Construction/site disturbance without tree permit             | 18(2)(c) | \$750.00   | \$650.00 |
| 24 | Fail to leave tree protection in place                        | 18(3)    | \$750.00   | \$650.00 |
| 25 | Fail to restore tree protection                               | 18(4)    | \$750.00   | \$650.00 |
| 26 | Fail to do mitigation work when required                      | 19(1)(a) | \$1,000.00 | \$850.00 |
| 27 | Removal of tree remains without authorization                 | 19(3)    | \$400.00   | \$350.00 |
| 28 | Fail to plant replacement                                     | 20(1)    | \$750.00   | \$750.00 |
| 29 | Fail to plant replacement on same lot                         | 20(6)    | \$750.00   | \$750.00 |
| 30 | Fail to achieve tree minimum                                  | 21(1)    | \$750.00   | \$750.00 |
| 31 | Fail to plant replacement in time                             | 22(1)    | \$300.00   | \$250.00 |
| 32 | Fail to plant/maintain in accordance with requirements        | 22(2)    | \$750.00   | \$750.00 |
| 33 | Fail to replace/maintain as required                          | 22(3)(a) | \$750.00   | \$750.00 |
| 34 | Prevent/obstruct inspection                                   | 28(2)    | \$500.00   | \$500.00 |
| 35 | Fail to comply with order/notice/Bylaw                        | 29(1)    | \$500.00   | \$450.00 |
| 36 | Activity when Stop Work notice effective                      | 29(3)    | \$500.00   | \$450.00 |