

CITY OF KELOWNA

BYLAW NO. 12025

Amendment No. 2 to Tree Protection Bylaw No. 8041

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts that the City of Kelowna Tree Protection Bylaw No. 8041 be amended as follows:

1. THAT Section **2.0 APPLICABILITY**, 2.1 be deleted in its entirety that reads

“(a) This bylaw applies to all lands listed in Schedule A – Tree Cutting Permit Areas of this bylaw; and

(b) to all lands designated as being within a Natural Environment/Hazardous Condition Development Permit Area as established by Kelowna Official Community Plan (1994-2013) Bylaw No. 7600 which are either:

(i) within a designated stream corridor leave strip as identified in Table 2.1 PUBLIC ROUTES OF ACCESS AND FISH-BEARING STATUS OF STREAMS, and Table 2.2 STREAM CORRIDOR LEAVE STRIP STANDARDS of Kelowna Official Community Plan (1994-2013) Bylaw No. 7600; or

(ii) on a slope of 30% or greater.”

and replace with

“This bylaw applies to

(a) all lands designated as being within a Natural Environment/Hazardous Condition Development Permit Area as established by the Kelowna Official Community Plan, as amended, which are either within a Riparian Management Area or on slope of 30% or greater; and

(b) trees within covenant areas.”

2. AND THAT Section **3.0 DEFINITIONS**, 3.1 be amended by adding the following definitions in their appropriate location:

“**City**” means the Corporation of the City of Kelowna;

“**damage**” means any action which will cause a tree to decline in health or die, including, but not limited to: ringing or removing bark, poisoning, burning, topping (unless branches are weak/diseased), raising/lowering the grade within a Tree Protection Zone, stockpiling material or driving within a tree protection zone, cutting roots, excavation impacting roots, or excessive pruning (exceeding 25% of live branches within a 12 month period);

“**drip line**” means a circle on the ground around a tree trunk that corresponds to and its directly below the tips of the tree’s outermost branches;

"fruit tree" means any tree, fruiting or flowering, of the Genus Malus, Prunus , Pyrus or Cydonia;

"invasive tree" means Siberian Elm (Ulmus pumila), Russian olive (Elaeagnus angustifolia), and Tree of Heaven (Ailanthus altissima) in addition to any other species identified by the Provincial invasive species authority;

"Riparian Management Area" means an area of sufficient width to include any significant natural attribute and adjacent ecosystem (e.g. vegetation, water features, fish and wildlife habitat, escarpments, terraces, steep valley sides and cliffs) adjacent to a water course, linking aquatic to terrestrial ecosystems and includes both existing and potential riparian vegetation and existing and potential adjacent upland vegetation that exerts an influence on the stream and the size of which is determined based on the water course location as identified in the Official Community Plan;

"tree protection area" means the area of land around a tree that must be protected to prevent damage to roots defined by an arborist, which should include the area below the dripline (see Schedule A for details and drawing);"

3. AND THAT Section **3.0 DEFINITIONS, 3.1 "DBH"** be amended by deleting "means a tree diameter at breast height (1 m above grade);" and replace with "means a tree trunk diameter measured at breast height (1 m above grade). For multi-stemmed trees this measurement is equal to the cumulative total of the DBH of the three largest stems;"
4. AND THAT Section **3.0 DEFINITIONS, 3.1 "Director of Planning and Development Services"** be amended by deleting "appointed by Council as such and includes his or her lawful deputy;" and replace with "appointed by the **City** as such and includes the person's lawful designate;"
5. AND THAT Section **3.0 DEFINITIONS, 3.1 "group of trees"** be deleted in its entirety that reads "means a tree massing that includes a minimum of 20 trees with a maximum spacing of 5 m between each tree;"
6. AND THAT Section **3.0 DEFINITIONS, 3.1 "leave strip"** be deleted in its entirety that reads "means an area established to protect the riparian zone of all streams identified in Tables 2.1 and 2.2 of Kelowna Official Community Plan (1994-2013) Bylaw No. 7600. Leave strips along stream corridors with banks which have a slope of greater than 10% shall be measured from the top of the bank. Leave Strips along streams with moderately sloping banks (less than 10% slope) shall be measured from the normal high water mark. The Leave Strip width is as determined in Table 2.2 of Kelowna Official Community Plan (1994-2013) Bylaw No. 7600;"
7. AND THAT Section **3.0 DEFINITIONS, 3.1 "permit"** be amended by deleting the words "Section 7.0 of"
8. AND THAT Section **3.0 DEFINITIONS, 3.1 "professional engineer"** be deleted in its entirety that reads "means a professional engineer registered under the Engineers and Geoscientists Act, with experience in geotechnical engineering;"

AND THAT Section **3.0 DEFINITIONS, 3.1 "protected tree"** be amended by deleting:

"means any tree with a diameter of 150 mm or more measured 1 m above grade (DBH) which is:

(a) located within a designated stream corridor Leave Strip within a Natural Environment/Hazardous Condition Development Permit Area as identified in Kelowna Official Community Plan (1994-2013) Bylaw No. 7600;

(b) located on a slope with a grade equal to or greater than 30% and which is within a Natural Environment/Hazardous Condition Development Permit Area as identified in Kelowna Official Community Plan (1994-2013) Bylaw No. 7600; or

(c) any tree located on land listed in Schedule "A" of this bylaw;"

and replace with

"means any tree within the lands to which this bylaw applies with a diameter of 100 mm or more measured 1 m above grade (100 mm DBH);"

9. AND THAT **3.0 DEFINITIONS, 3.1 "qualified person"** be amended by deleting the words "professional engineer," and replacing them with "registered professional forester";

10. AND THAT **3.0 DEFINITIONS, 3.1 "replacement tree"** be deleted in its entirety that reads

"means a tree planted on a property to replace a tree which has been removed or damaged on the same property."

and replace with

"means a tree required to replace a tree which has been removed or damaged.";

11. AND THAT **Section 4.0 PROHIBITIONS, 4.1** be moved to 4.2 and a new 4.1 be added as follows:

"No person(s) including owners shall damage a protected tree willfully. If damage occurs, the responsible person will be required to replace the damaged tree according to the provisions of this bylaw.";

12. AND THAT **5.0 EXEMPTIONS, 5.1 (a)** be deleted in its entirety that reads "the removal or pruning of dead, diseased or damaged trees or limbs by standard arboricultural practices as identified by a qualified person and approved, in writing, by the Director of Planning & Development Services"

and replace with

"the pruning of protected trees to address dead, diseased or damaged limbs, when the prior approval of the Director of Planning & Development Services or their designated agent is given and the pruning follows standard arboricultural practices to avoid tree damage.";

13. AND THAT **5.0 EXEMPTIONS, 5.1(b)** that reads "the emergency removal of dangerous or hazardous trees or limbs by standard arboricultural practices as which is to be reported immediately to the Director of Planning & Development Services." be moved to **6.0 DELEGATION OF AUTHORITY, 6.1 (a)** and that the following text be added after practices "prior to permit issuance" and the remainder of Section 6 be renumbered ;

14. AND THAT **5.0 EXEMPTIONS, 5.1(b)** be added that reads "the pruning of limbs, within 2M of the ground or touching structures (and less than 30% of the live canopy), to mitigate wildfire risk";

15. AND THAT **5.0 EXEMPTIONS, 5.3(c)** be added that reads "the removal of invasive trees";
16. AND THAT **7.0 PERMIT APPLICATION PROCEDURE, 7.1** be added as follows:

"Permit applications will be considered for the removal of dead, diseased or damaged trees or limbs. The hazard posed must be clearly identified by a qualified person who, in writing, confirms the dangerous or hazardous tree or limb must be removed based on their professional expertise. Permit applications may also be considered if the tree is causing damage to property, including damage to roofs, retaining walls and sidewalks, that standard arboriculture practices cannot rectify." and the remainder of Section 7 be renumbered;
17. AND THAT **7.0 PERMIT APPLICATION PROCEDURE, 7.1 (b)** be deleted in its entirety that reads

"the location of each tree or group of trees on the property with a DBH of 150 mm or greater within a stream corridor leave strip and/or area of slope with a grade equal to or greater than 30% (tree protection area), including trees within two metres of the property line on an adjacent property.";

and replace with

"7.2 (b) the location of each protected tree(s) on the property, including trees within two metres of the property line on an adjacent property.";
18. AND THAT **7.0 PERMIT APPLICATION PROCEDURE, 7.1 (c)** be deleted in its entirety that reads

"a site plan clearly identifying which tree(s) or group(s) of trees including type (coniferous or deciduous), size (DBH) and number of trees which are requested to be cut down."

and replace with

"7.2 (c) a site plan (preferably an air photo) clearly identifying which protected tree(s) are requested to be cut down, including the type (coniferous or deciduous) and size (DBH) of the tree(s).";
19. AND THAT **7.0 PERMIT APPLICATION PROCEDURE, 7.1 (d)** be deleted in its entirety that reads

"a site plan clearly identifying which trees or group of trees including type and size which are to be retained.";

and replace with

"7.2 (d) a site plan clearly identifying trees that are to be retained.";
20. AND THAT **7.0 PERMIT APPLICATION PROCEDURE, 7.1 (h)** be added as follows

"the certification credentials of the qualified person;"
21. AND THAT **7.0 PERMIT APPLICATION PROCEDURE, 7.2** be deleted in its entirety that reads "Upon receipt of an application for a Tree Cutting Permit, the contents of which complies with Section 7.1 of this bylaw, the Director of Planning & Development Services may issue a permit with or without conditions, including but not limited to any of the following:"

and replace with

"7.3 Upon receipt of an application for a Permit the Director of Planning & Development Services may issue a permit with or without conditions, including but not limited to any of the following:";

22. AND THAT **8.0 SECURITY DEPOSIT, 8.1** be amended by adding the following at the beginning "At the discretion of the Director of Planning & DEvelopment Services,";
23. AND THAT **8.0 SECURITY DEPOSIT,** be amended by adding "Upon inspection by the City one (1) year after planting, 90% of the security deposit will be returned if the replacement tree is deemed to be in satisfactory health. If a deficiency is identified, the City will withhold the security deposit until the deficiency is rectified." as 8.4 and the remainder of Section 8 be renumbered.
24. THAT **8.0 SECURITY DEPOSIT, 8.4** be amended by adding "There shall be a 10% holdback of the security deposit for an additional period of one (1) year and this holdback may be returned following a second inspection to confirm the tree remains in satisfactory health." as 8.5 and the remainder of Section 8 be renumbered.
25. AND THAT **10.0 REPLACEMENT TREES, 10.1** be amended by deleting "at a ratio of two replacement trees for each tree removed," and replacing it with "The replacement formula is determined by the size of the protected tree removed:
 - 1 tree at 0 mm - 151 mm (6") DBH = 2 replacement trees
 - 1 tree at 152 mm - 304 mm (12") DBH = 3 replacement trees
 - 1 tree at 305 mm - 456 mm (18") DBH = 4 replacement trees
 - 1 tree at 457 mm - 609 mm (24") DBH = 6 replacement trees
 - 1 tree at 610 mm and larger (36") DBH = 8 replacement trees";
26. AND THAT **10.0 REPLACEMENT TREES, 10.2** be deleted in its entirety that reads:

"At least one of the replacement trees must be of the same type (i.e. either a coniferous or deciduous tree) as the tree type being removed. The minimum size of replacement trees shall be 3.0 m (10 feet) in height for conifers and 80 mm (3.2 inches) diameter at breast height (DBH) for deciduous species."

and replace with

"At least one of the replacement trees must be of the same type (i.e. either a coniferous or deciduous tree) as the tree type being removed. The minimum size of replacement trees shall be 2.0 m (6.5 feet) in height for conifers and 60 mm (2.4 inches) diameter at breast height (DBH) for deciduous species. The qualified professional may propose alternative size and type replacements if deemed equivalent by the Director of Planning & Development.";

27. AND THAT **10.0 REPLACEMENT TREES, 10.3** be deleted in its entirety that reads

"In addition to any penalty that may be imposed under this bylaw, where a person cuts down, removes or damages any tree, or permits any tree to be cut down, removed or damaged, in violation of this bylaw, or in violation of any permit issued under this bylaw, that tree shall be replaced at a ratio of two replacement trees for each tree removed and in accordance with the terms expressed in Section 10.1.";

and replace with

"In addition to any penalty that may be imposed under this bylaw, where a person cuts down, removes or damages any protected tree, or permits any protected tree to be cut down, removed or damaged, in violation of this bylaw, or in violation of any permit issued under this bylaw, compensation will be paid to the City to cover the cost of replacement trees to be planted at the City's discretion.";

28. AND THAT **10.0 REPLACEMENT TREES, 10.4** be deleted in its entirety that reads

"Maintenance requirements shall be specified in the replacement plan and carried out in accordance with the specifications.";

and replace with

"Planting and maintenance requirements shall be specified in a replacement plan provided by a **qualified person**. Maintenance must include watering bags or equivalent irrigation to support the establishment of the **tree** for at least three years after planting. Planting and maintenance must be carried out in accordance with the replacement plan specifications.";

29. AND THAT **13.0 OFFENCES AND PENALTIES, 13.2** be deleted in its entirety that reads

"Every **person** who violates a provision of this bylaw commits an offence and is liable on summary conviction to a penalty not exceeding Two Thousand Dollars (\$2,000.00) and the costs of prosecution.";

and replace with

"Every **person** who violates a provision of this bylaw commits an offence and is liable on summary conviction to a penalty not exceeding Ten Thousand Dollars (\$10,000.00) and the costs of prosecution.";

30. AND THAT **Schedule A - TREE CUTTING PERMIT AREAS**, be deleted in its entirety and replaced with **Schedule A – Tree Protection Zone Installation Standards and Figure 1 – Standard Tree Protection Barrier Examples**, attached to and forming part of this bylaw.

31. This bylaw may be cited for all purposes as "Bylaw No. 12025, being Amendment No. 2 to Tree Protection Bylaw No. 8041."

32. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first, second and third time by the Municipal Council this

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk

SCHEDULE A
Tree Protection Zone Installation Standards

PURPOSE

Tree Protection Zones involve barriers placed around trees for the prevention of damage to tree trunks, branches, and roots by any construction activities/operations.

REQUIREMENTS

1. Barriers are to be installed prior to any demolition, excavation, or construction on site.
2. Barriers must remain upright and in place throughout the entire construction process.
3. No incursions inside or against the Tree Protection Zone are to occur, including, but not limited to: garbage/debris storage, material or equipment storage, porta-potties, soil piling, fill or grade changes, surface treatments or excavations of any kind, equipment fueling or chemical mixing, etc.

SPECIFICATIONS FOR CONSTRUCTION

- Barriers should be a maximum of 1.2 m (~4') in height.
- At minimum, 2"x 4" construction lumber to be used for vertical posts, top and bottom rails and cross bracing (in an "X"); round, un-treated vertical posts may be used with a minimum diameter of 9 cm.
- Spacing between vertical posts to be no further apart than 3.7 m (12') on center.
- Structure must be sturdy with vertical posts driven firmly into the ground.
- Barrier must be continuous mesh screening (e.g. orange snow fencing).
- The distance of the barrier from the tree trunk must be determined by a qualified person (arborist) based on the drip line and tree diameter, using table below:

Trunk Diameter (DBH measured in mm or inches)	Critical Root Zone (minimum distance of fence from trunk)
200 mm / 7.9"	1.2 m
250 mm / 9.8"	1.5 m
300 mm / 11.8"	1.8 m
350 mm / 13.8"	2.1 m
400 mm / 15.7"	2.4 m
450 mm / 17.7"	2.7 m
500 mm / 19.7"	3.0 m
550 mm / 21.7"	3.3 m
600 mm / 23.6"	3.6 m
750 mm / 29.5"	4.5 m
900 mm / 35.4"	5.4 m
1000 mm / 39.4"	6.0 m
Minimum Critical Root Zone Calculation: divide DBH (mm) by 166 Example: 800 mm divided by 166 = 4.8 m minimum distance from trunk	

- Visible signage must be posted advising that encroachment inside the protected area is forbidden. Signage to be posted on at least two sides (weather-proof, 11"x17" minimum size). Sign must read:

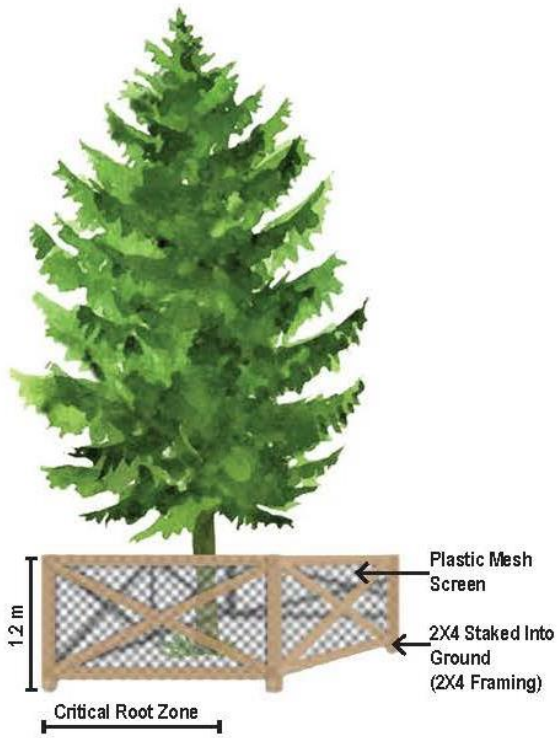
NO ENTRY

Tree Protection Zone

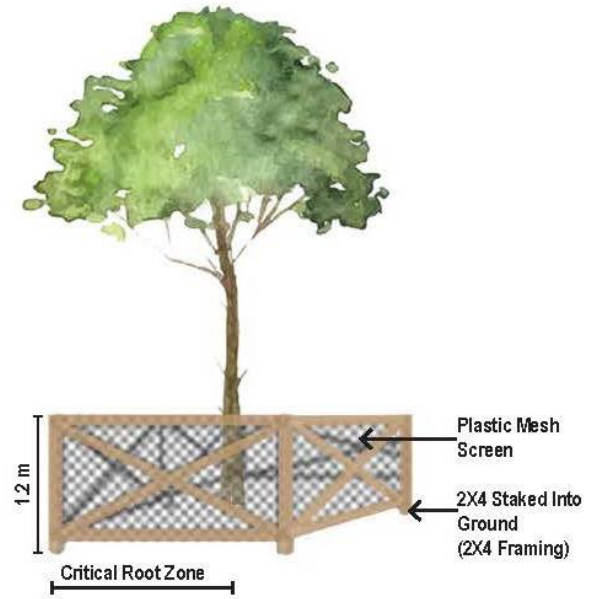
If barrier has fallen over report immediately for repair

Phone: (xxx) xxx-xxxx

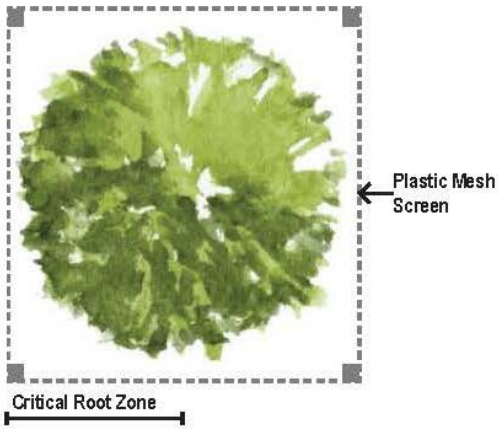
Figure 1 – Standard Tree Protection Barrier Examples



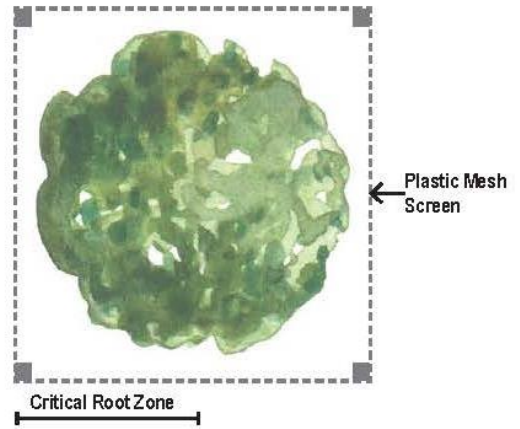
Elevation View



Elevation View



Plan View



Plan View