CORPORATION OF THE CITY OF BURLINGTON

SPECIFICATIONS

INDEX FOR

Tree Protection and Preservation

(SPEC NO. SS12A)

Amended December 2025

Contents

1. Scope 2
2. Definitions 2
3. Application of Policy 2
4. General Policy 2
5. The Minimum Tree Protection Zone (MTPZ) 3
6. Tree Protection Barriers 3
7. Tree Removal and Relocation 4
8. Site Services or Excavations within the Minimum Tree Protection Zone 4
9. Tree Repair 4
10. Securities for Non-Compliance 5

1. Scope

This specification describes the measures required to protect trees not designated for removal for all work on public property within the City of Burlington and for those situated on private property within the City's Urban Planning Area Boundary.

2. Definitions

For the purpose of this specification, the following definitions apply:

a) Certified Arborist:
An arborist certified by the International Society of Arboriculture (ISA) who has a diploma (minimum) in arboriculture or urban forestry. They may be required to provide their ISA Certification number. The arborist must have minimum job experience of at least 6 years in Tree Protection and Mitigation;
b) Barrier:
A fence placed around a single tree or group of trees to protect them from removal and injury;
c) Dripline:
The location on the ground surface directly beneath the theoretical vertical line from the tips of the outermost branches of the trees.

3. Application of Policy

a) Tree protection measures are required for City trees and other trees protected by the Public Tree By-law 098-2025 (as amended), and those privately-owned trees protected by the Private Tree By-law 040-2022 (as amended);
b) All trees situated on City property are protected under provisions of the Public Tree By-law (098-2025).
c) Trees that are of permittable size situated on private property are protected under the provisions of the Private Tree By-law (040-2022);
d) Trees protected by the Public Tree By-law (098-2025) may not be removed, injured or destroyed in any way without authorization from the Manager of Urban Forestry or designate. Note that the term "tree" refers to all parts of the tree, including all roots. Trees protected by the Private Tree By-law (040-2022) may not be injured or destroyed without a permit;
e) The specifications set out in this policy shall be the standard specifications for tree protection measures during construction whenever tree protection measures are required by the City and in every instance where construction activities may result in damage to trees;
f) Higher standards of tree protection may be imposed where warranted in the opinion of the Manager of Urban Forestry or designate for municipal trees and for private trees with regard to the size, variety, location, and health of the tree and any circumstances surrounding the construction which may pose a particular hazard to the tree;
g) Lesser standards of tree protection shall only be permitted on the recommendation of a Certified Arborist (as defined in this policy) and with the written consent of the Manager of Urban Forestry or designate; and
h) Anyone failing to adhere to the tree protection policies and specifications outlined below will be financially responsible for any resulting damage to trees.

4. General Policy

Construction activities near trees may result in injury to the trunk, limbs or roots of trees causing damage or death of the tree. In order to prevent such damage:

a) Trees within or adjacent to a construction area must be protected during construction by means of a barrier surrounding the Minimum Tree Protection Zone (MTPZ) as outlined in Sections 5 & 6 of this standard specification;
b) Activities which are likely to injure or destroy the tree are not permitted within the MTPZ. Equipment or

vehicles shall not be operated, parked, repaired or refueled within the dripline of trees;

c) Tree pruning or root cutting of City owned trees is to be done in accordance with Section 8 of this specification;

d) No objects may be attached to trees protected by the Public Tree by-law without written authorization by the City. Construction material, supplies, or equipment and earth shall not be stockpiled within the dripline of any tree;

e) No City tree or tree protected by the Public Tree by-law may be removed without the written permission of the Manager of Urban Forestry or designate; and

f) Exposed roots from excavation must be covered with soil, mulch or burlap and watered within 24 hours of exposure to prevent drying out.

5. The Minimum Tree Protection Zone (MTPZ)

The following is a chart showing minimum required distances for determining a Minimum Tree Protection Zone. Some trees and some site conditions may require a larger Minimum Tree Protection Zone at the discretion of the City.

Table 1 – Minimum Tree Protection Zones

Trunk Diameter (DBH) [2]	Minimum Tree Protection Zone (MTPZ) Distances Required [3]	Critical Root Zone (CRZ) Distances Required [3&4]
< 10 cm	1.8 m	1.8 m
11 - 40 cm	2.4 m	4.0 m
41 - 50 cm	3.0 m	5.0 m
51 - 60 cm	3.6 m	6.0 m
61 - 70 cm	4.2 m	7.0 m
71 - 80 cm	4.8 m	8.0 m
81 - 90 cm	5.4 m	9.0 m
91 - 100 cm	6.0 m	10.0 m
100 + cm	6.0 m + 10cm per 1cm DBH	10.0 m + 10cm per 1 cm DBH

NOTES:

[1] The roots of a tree can extend from the trunk to approximately 2-3 times the distance of the drip line.
[2] Diameter at breast height (DBH) measurement of tree trunk taken at 1.4 metres above ground.
[3] Minimum Tree Protection Zone and Critical Root Zone distances are to be measured from the outside edge of the tree base towards the drip line and may be limited by an existing paved surface, provided the existing paved surface remains intact throughout the construction work and is subject to Section 6 of this specification.
[4] Where work is being performed beyond the Minimum Tree Protection Zone but within the Critical Root Zone the works are subject to Section 8 of this specification.

6. Tree Protection Barriers

Trees within Minimum Tree Protection Zones shall be protected by means of a “tree protection barrier” meeting the following specifications:

a) The required barrier is a 1.2 metre (4 ft) high orange plastic web snow fencing on 2” x 4” frame. Where orange plastic web snow fencing creates a restriction to sightlines, page wire fencing with reflective tape can be used.

b) Tree protection barriers are to be erected prior to the commencement of any construction or grading activities on the site and are to remain in place throughout the entire duration of the project. The barriers shall be maintained erect and in good repair throughout the duration of construction operations with breaks and unsupported sections repaired immediately. Tree protection may be not be removed prior to the completion of construction without written authorization from the Manager of Urban Forestry or designate.

c) All supports and bracing used to safely secure the barrier should be located outside the MTPZ. All supports

and bracing should minimize damage to roots.

d) Where some fill or excavated material must be temporarily located near a MTPZ, a wooden barrier with silt fencing must be used to ensure no material enters the MTPZ.

e) No materials or fill may be stored within the MTPZ.

f) Equipment or vehicles shall not be operated, parked, repaired, or refueled within the MTPZ.

g) No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the MTPZ without written authorization from the Manager of Urban Forestry or designate.

h) A laminated Minimum Tree Protection Zone sign (see attached) must be attached to the most visible side of the Tree Protection, where it will be visible by those persons entering the site. Minimum size must be 10”x14”.

7. Tree Removal and Relocation

Any requests for removal, cutting, pruning or relocating a tree must be made in writing to the City. If approval is granted for removal of a tree, the contractor will assume all costs involved. In most instances tree replacement or compensation will be required.

8. Site Services or Excavations within the Minimum Tree Protection Zone

It is recognized that there are cases where trees are growing overtop existing underground utilities that may require inspection and/or new installation. While the guidelines in this standard specification still apply, in these cases some modification to the Minimum Tree Protection Zone, in addition to pre-construction pruning, may be required where work within or near the MTPZ is approved by the Manager of Urban Forestry or designate. The objective is to avoid severance of anchor roots and or major branches and minimize damage to the tree(s) and to maintain the natural form of the crown.

a) Above ground clearance for overhanging branches in the work zone must be anticipated. The contractor is required to have a City approved tree service raise the crown of all branches to provide adequate clearance for construction equipment. The cost of above ground pre-construction pruning is to be borne by the party that requires the work to be completed.

b) When excavation is required for inspection (only) of private water and sanitary lateral connections at the property line, are within the limits of the MTPZ and the CRZ and have the potential to damage tree roots, excavation must be completed by a qualified arborist or under an arborist’s supervision using a hydro vacuum unit or air powered soil excavation tools in order to preserve the integrity of the tree’s roots. When new private water and sanitary lines must be installed, and there is not a suitable location outside of the MTPZ and the CRZ, directional micro tunneling and boring is the preferred option for installation within the MTPZ and CRZ.

c) When any site works, are within the limits of the MTPZ and the CRZ and have the potential to damage tree roots, root pruning using a hydro vacuum unit or air powered soil excavation tools is acceptable, provided it is operated by a qualified arborist or under an arborist’s supervision, and completed to a depth of 300mm. Roots are to be cut a maximum of 150 mm from the edge of excavation (grading or removals). The limit of excavation, grading or removals is to be minimized to the greatest extent possible and is to include the use of excavation shoring, smaller excavation equipment or rubber-tired machines. See Detail TP-2 (attached as an appendix) for further information.

9. Tree Repair

Trees damaged by construction operations shall be repaired as follows, within five days of the damage:

a) Branches 25 mm or greater in diameter that are broken shall be cut back cleanly on the tree side of the break or to within 10 mm of their base, if a substantial portion of the branch is damaged.

b) Bark that is damaged shall be neatly trimmed back to the uninjured bark without causing further injury to the tree.

c) Root pruning within the **Minimum Tree Protection Zone** of any tree requires root exploration via supersonic air tool or hydro vacuum unit to first remove the soil and expose the roots.

d) Roots under 2 cm in diameter can be pruned using a sharpened tool such as hand pruners or a sharpened spade under the supervision of the Construction Inspector.

e) Roots between 2 and 8 cm in diameter can be pruned by the arborist using a sharp tool, such as a handsaw, hand pruner or loppers and under the supervision of the Construction Inspector and the advisement of the Project Arborist.

f) All roots over 8 cm in diameter must be assessed by the Project Arborist prior to pruning unless the arborist on-site can confidently assess the effect of the removal of the root as not detrimental to the tree.

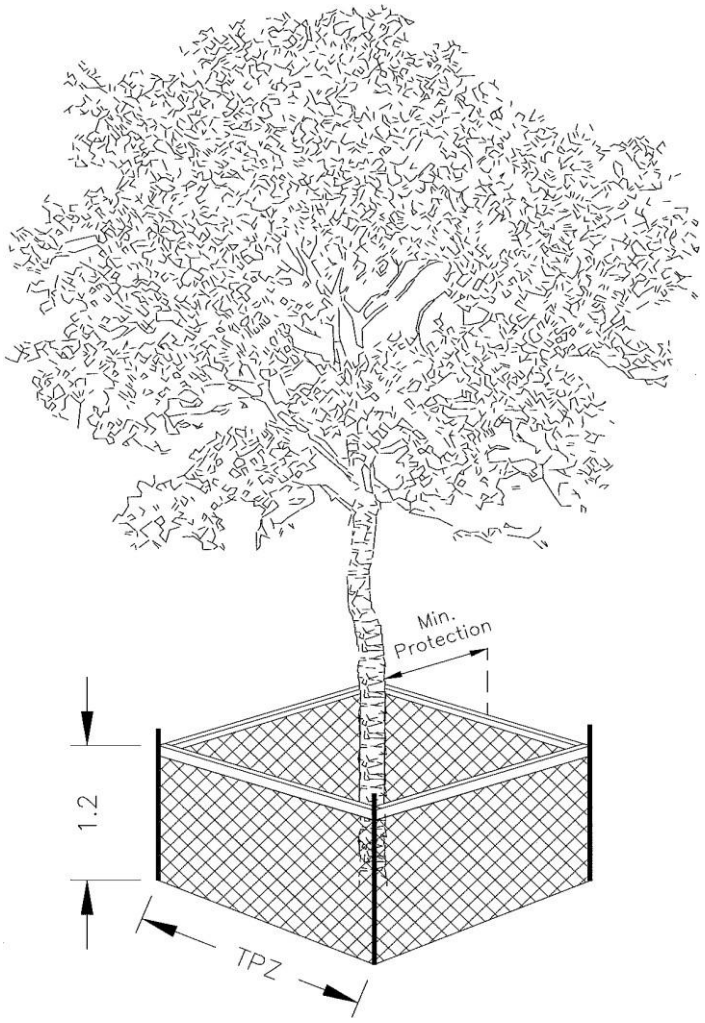
g) Root pruning within the **Critical Root Zone** and outside of the MTPZ, typically requires the use of a sharpened garden spade, cutting a line to a depth of about 30 cm by the on-site arborist under the **advisement of the Project Arborist** if needed. However, the same pruning protocol for the size of roots encountered (in the MTPZ) applies to the roots found within this area.

h) The trenches are typically backfilled with the same excavated soil or new topsoil or compost and hoarding should be installed along this trench to project the remaining roots.

10. Securities for Non-Compliance

Where a tree has been damaged through non-compliance with the Tree Protection and Preservation Specification, any security provided for tree preservation or replacement may be held by the City for up to three (3) years from the date of the final inspection of the construction project. If the tree dies or needs to be replaced within those three years, the Owner shall pay for replacement planting with nursery stock according to the City of Burlington standards. Replacement trees must have a minimum height of 180cm for coniferous trees and 80mm caliper for deciduous replacements. Replacements must be made to the satisfaction of the Manager of Urban Forestry or designate. If the Owner meets their financial obligations and there is no further need to care for the tree, after three (3) years, the City shall return the deposit(s) or the balance of the deposit(s) if the City had to use some of the money for monitoring, preservation or replacement of the tree. If the tree does not recover to the satisfaction of the Manager of Urban Forestry or designate, then the City shall retain the deposit(s) for the continued maintenance, preservation or eventual replacement of the tree. The Owner may be required to post additional securities if, in the opinion of the Manager of Urban Forestry or designate, the saved tree is very damaged and will need on-going monitoring, preservation or replacement that will exceed the cost of the deposit(s) mentioned above.

Securities may be released prior to the expiry of the three-year period provided the City is satisfied that the tree has not been damaged. Applicants for the early release or reduction of securities shall submit a report from a Certified Arborist certifying that the tree is in a state of vigorous health and has not been injured or destroyed as a result of the construction activities.



TREE PROTECTION BARRIER

Detail TP-1 – Tree Protection Detail.

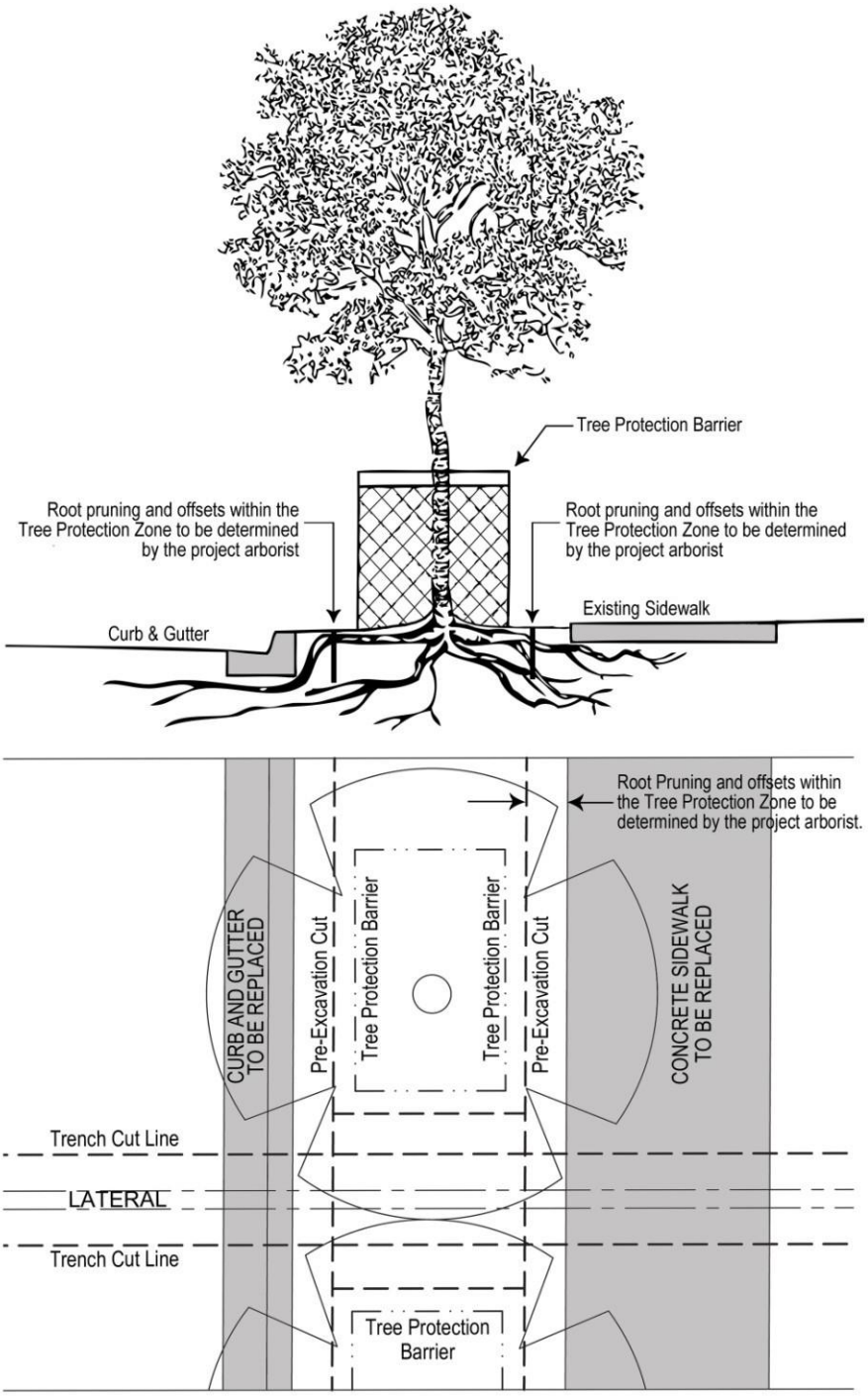
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1. The required barrier is a 1.2 metre (4 ft) high orange plastic web snow fencing on 2” x 4” frame. Where orange plastic web snow fencing creates a restriction to sightlines, page wire fencing with reflective tape can be used.
2. Tree protection barriers are to be erected prior to the commencement of any construction or grading activities on the site and are to remain in place throughout the entire duration of the project. The barriers shall be maintained erect and in good repair throughout the duration of construction operations with breaks and unsupported sections repaired immediately. Tree protection may be not be removed prior to the completion of construction without written authorization from the Manager of Urban Forestry or designate.
3. All supports and bracing used to safely secure the barrier should be located outside the MTPZ. All supports and bracing should minimize damage to roots.
4. Where some fill or excavated material must be temporarily located near a MTPZ, a wooden barrier with silt fencing must be used to ensure no material enters the MTPZ.
5. No materials or fill may be stored within the MTPZ.
6. Equipment or vehicles shall not be operated, parked, repaired, or refueled within the MTPZ.
7. No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the MTPZ without written authorization from the Manager of Urban Forestry or designate.
8. A laminated Minimum Tree Protection Zone sign (See Detail TP-3 – Minimum Tree Protection Zone Sign) must be attached to the side of the Tree Protection where it will be visible by persons entering the site. Minimum size must be 10”x14”.

Detail TP-2 – Root Pruning Detail



NOTE:
For excavations perpendicular to to the curbing (ie. sidewalk, curbing, water or sewer laterals renewal)

(a) The contractor is to use a trench box to minimize the width of the open cut.
(b) When the lateral replacement is within the Tree Protection Zone of a tree, the contractor is to complete the works using trenchless technologies.

Detail TP-3 – Minimum Tree Protection Zone Sign