

# Tree and Landscaping Manual - Maintenance



## City of Portland, Oregon - Bureau of Development Services

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### Standard T1, Trees

- The location of water, sewer, and other utility easements;

### Maintenance, irrigation, protection, etc

#### Intent

Required landscaping must be kept alive and healthy to continue to meet the requirements of the Zoning Code and this manual.

#### Landscape Plans

Landscape plans must be submitted showing all landscaped areas. Plans must be drawn to scale and show type, size, number, and placement of materials. Materials must be identified with both their scientific and common names. Any required irrigation system must also be shown.

#### Installation

All required landscaping must be in-ground, except for certain stormwater management planters. Plant materials must be installed to current nursery industry standards and properly supported to ensure survival. Support devices such as guy wires or stakes must not interfere with vehicle or pedestrian movement.

#### Maintenance

- Maintenance of landscaped areas is the ongoing responsibility of the property owner.
- Required landscaping must be continuously maintained in a healthy manner.
- Plants that die must be replaced in kind.
- A fine may be levied if the landscaping has not been maintained, and new plants required to be planted.

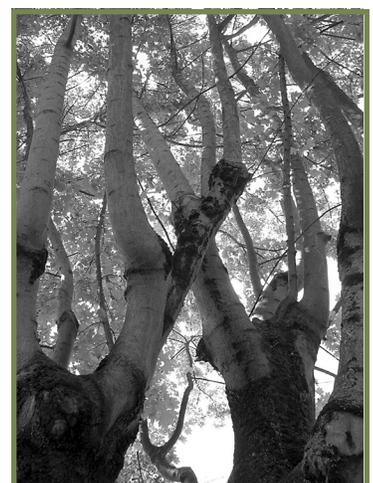
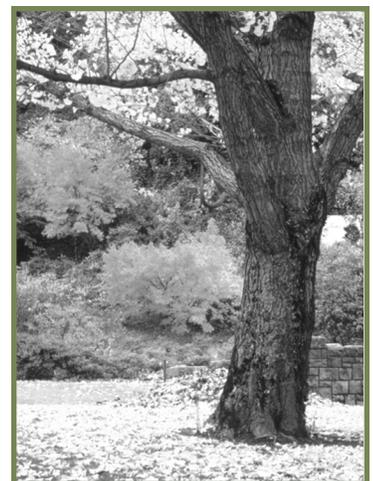
#### Irrigation

All landscaped areas must provide irrigation using one of the three following options:

- a. A permanent built-in irrigation system with an automatic controller.
- b. A temporary irrigation system designed and certified by a licensed landscape architect. The system must provide water sufficient to ensure that the plants will become established, and may be removed when the plants will sustain themselves.
- c. Irrigation by hand. This method requires that the landscaping be inspected one year after installation to ensure that the landscaping has become established. An inspection fee will be required.

#### Protection

All required landscaped areas must be protected from potential damage by adjacent uses and development, including parking and storage areas. Bollards, curbs or other measures may be used.



## Tree Protection Specifications 11.60.030

**A. Intent.** Tree protection during development helps to reduce the negative impacts of construction. The tree protection regulations keep the foliage crown, branch structure and trunk clear from direct contact and injury by equipment, materials or disturbances; preserve roots and soil in an intact and non-compacted state; and visibly identify the root protection zone in which no soil disturbance is permitted and other activities are restricted. Maintaining these protections through development will lessen undesirable consequences that may result from uninformed or careless acts, preserve both trees and property values, and reduce risks associated with damaged or destabilized trees.

**B. Applicability.** These standards apply to any tree that is required to be retained on site or in the street during a development activity. Proposed tree protection shall meet the requirements of Subsection C., below, except that the City Forester may approve or require alternate protection methods for Street or City Trees.

**C. Protection methods.** The Tree Plan shall show that trees retained are adequately protected during construction using one of the methods described below:

1) Prescriptive Path

a) A root protection zone is established as follows:

i) For trees on the development site - a minimum of 1 foot radius (measured horizontally away from the face of the tree trunk) for each inch of tree diameter (see Subsection 11.80.020 C., Measurements):

ii) Street Trees – the City Forester may prescribe greater or lesser protection than required for on-site trees.

iii) Encroachments into the root protection zone are allowed provided:

a. the area of all encroachments is less than 25% of the total root protection zone area;

b. and no encroachment is closer than 1/2 the required radius distance (see Figure 60-1); Protection fencing consisting of a minimum 6-foot high metal chain link construction fence, secured with 8-foot metal posts shall be established at the edge of the root protection zone and permissible encroachment area;

c. Signage designating the protection zone and penalties for violations shall be secured in a prominent location on each protection fence;

d. The following is prohibited within the root protection zone of each tree or outside the limits of the development impact area: ground disturbance or construction activity including vehicle or equipment access (but excluding access on existing streets or driveways), storage of equipment or materials including soil, temporary or permanent stockpiling, proposed buildings, impervious surfaces, underground utilities, excavation or fill, trenching, or other work activities; and

e. The fence shall be installed before any ground disturbing activities including clearing and grading, or construction starts; and shall remain in place until final inspection

2) **Performance Path.** When the prescriptive path is not practicable, the applicant may propose alternative measures to modify the prescriptive root protection zone, provided the following standards are met:

a) The alternative root protection zone is prepared by an arborist who has visited the site and examined the specific tree's size, location, and extent of root cover, evaluated the tree's tolerance to construction impact based on its species and health, and identified any past impacts that have occurred within the root zone;

b) The arborist has prepared a plan providing the rationale used to demonstrate that the alternate method provides an adequate level of protection based on the findings from the site visit described above;

c) The protection zone shall be marked with signage, stating that penalties will apply for violations, and providing contact information for the arborist;

d) If the alternative methods require the arborist be on site during construction activity, the applicant shall submit a copy of the contract for those services prior to permit issuance and a final report from the arborist documenting the inspections and verifying the viability of the trees prior to the City's final inspection;

e) If the alternative tree protection method involves alternative construction techniques, an explanation of the techniques and materials used shall be submitted;

f) The arborist shall sign the tree preservation and protection plan and include contact information.

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The BDS Director may require the proposed tree protection method to be peer reviewed for adequacy; reject the proposal if deemed insufficient to meet Subsection C.2.b, above; or require a performance guarantee per Section 11.10.060 in order to ensure the protection methods are properly implemented.

- 3) **Additional information.** The City may request additional information regarding the proposed development, including construction management approaches, if the proposed development and tree protection appear to conflict. The purpose of this provision is to ensure that logistical considerations are adequately addressed in order to prevent the need for changes to the tree protection measures during the construction process.
- D. **Changes to tree protection.** Changes to the tree protection measures during the course of the development may be approved as a revision to a permit provided that the change is not the result of an unauthorized encroachment into a root protection zone, and the applicant demonstrates that the tree protection standards of this Section continue to be met. When an unauthorized encroachment has occurred, the city may pursue an enforcement action or other remedy per Chapter 11.70.
- E. **Tree protection inspections.** The City Forester or BDS Director may conduct inspections during the course of project activity to determine compliance with this Title and confirm that tree protection zones are being maintained and root protection methods are effective. No person may refuse entry or access to a permitted development site to any authorized representative of the City who provides proper credentials and requests entry for the purpose of conducting a Tree Protection inspection. In addition, no person may obstruct, hamper or interfere with any such representative while in the process of carrying out their official duties.