#### **CITY OF PORTLAND OREGON - BUREAU OF DEVELOPMENT SERVICES**



#### **Tree Preservation on Your Land Division Site**

### Trees on your property Purpose of tree regulations

The citizens of Portland value trees in their neighborhood and appreciate how trees enhance the livability of their neighborhood. Just like other infrastructure such as streets, sidewalks, and utilities, our city depends on trees to provide benefits that enhance our daily lives. Trees provide many benefits such as shade and beauty. Trees also absorb air pollutants and contamination; provide buffer from noise, wind, and storms; maintain wildlife habitat; reduce soil erosion and flooding; stabilize slopes; filter pollution from stormwater; and absorb stormwater runoff that would otherwise need to be handled by larger storm sewers. Mature trees can enhance property values. Trees are a valuable part of the City's natural heritage and healthy environment.

Trees often have a sizable canopy and root system that extends into the clearing and grading area of proposed development or potential future development areas. Designing a project or dividing land without regard to the specific needs of trees often leads to unintended tree loss. The Portland Zoning Code requires that tree preservation be considered during the Land Division process (subdivision or partition). The tree preservation standards in the Zoning Code help designers, planners, surveyors, and contractors develop reasonable and effective tree preservation plans.



A permit from the Urban Forestry Division of Portland Parks or the Bureau of Development Services is required to cut or remove a tree:

Because Portland's tree protection regulations are complex, always confirm City regulations-before cutting a tree. Fines are imposed for violations of the City's tree protection regulations. Contact the Planning and Zoning Section of the Bureau of Development Services at 503-823-7526 and the Urban Forestry Division of Portland Parks at 503-823-4489 for more information.

#### Land division tree preservation requirements

Portland's land division regulations promote preservation of existing trees as development and redevelopment occurs. Existing trees must be part of the early planning process as you design the layout of new lots, tracts, and streets.

#### When the land division tree preservation standards apply

The Tree Preservation Chapter 33.630 applies when a land division site has:

- at least one significant tree that is not in an Environmental Overlay Zone, OR
- at least one tree that is at least 6 inches in diameter that is not in an Environmental Overlay Zone.

#### What is a significant tree?

The Portland Zoning Code defines a significant tree as any tree more than 20 inches in diameter, except trees listed as nuisance or prohibited on the Portland Plant List. In addition, the native trees listed in Table 630-1 are defined as significant.

#### TREE PRESERVATION ON YOUR LAND DIVISION SITE









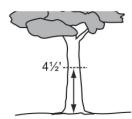
#### Step-by-Step: Preparing your land division application

You will be required to submit documentation with your land division application showing that you comply with the relevant tree preservation requirements. You will need to do several things before you submit your application:

First, gather information about the trees on your land division site.

- Obtain a survey that shows the accurate location of all trees over 6 inches in diameter, measured 4.5 feet above the ground level. In addition, all Pacific Yews, Madrones, or Garry Oaks of any size must be shown (the surveyor may need to consult with a qualified expert to identify these species). A boundary survey of the lot being divided is required for all land division applications. Ask your surveyor to locate all of the trees on the site when the initial boundary survey measurements are taken. This survey can be used as the basemap for the Tree Preservation Plan.
- Have a qualified person identify the species, diameter, and condition of each tree (note that only the City Forester or an Arborist may make the determination that certain trees are exempt under 33.630.030 hiring an arborist early in the planning process is strongly recommended).
- If you have a large site (several acres or larger), consider hiring a Professional Forester to prepare a tree inventory.

#### How to measure tree diameter (Section 33.930.130)

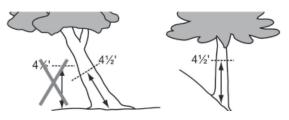


#### **Measuring Tree Size for Existing Trees**

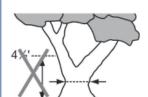
Existing trees are measured at a height of 4.5 feet above the ground. Trees on slopes are measured from the ground level on the lower side of the tree. If the tree spits into multiple trunks below 4.5 feet, the trunk is measured at its most narrow point below the split.

#### Measuring Existing Trees with an Angle or on Slopes

Measure the trunk at right angles to the trunk 4-1/2 feet along the center of the trunk axis so the height is the average of the shortest and longest sides of the trunk.



#### **Measuring Split Trunk Trees**

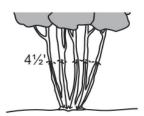


When the trunk branches less than 4-1/2 feet from the ground, the trunk is measured at the smallest circumference below the lowest branch.

#### Measuring Multi-stemmed Trees

Measure all trunks and add the total diameter of the largest trunk and one-half the diameter of each additional trunk. A multi-stemmed tree has trunks that are connected above the

ground and doesn't include individual trees growing close together or from a common root stock that do not have trunks connected above the ground.



**Second**, Identify all trees as either exempt or subject to preservation standards.

- Identify all exempt trees on the site do not include these trees in the calculations in Step 3. You may need to consult with an arborist to make this determination.
- Identify all trees within the Environmental Overlay Zone do not include these trees in the calculations in Step 3 (contact the Development Services Center to confirm if the site is located in an environmental overlay zone).
- Identify all significant trees. The Significant Trees Plant Identification Handbook is available in the Development Services Center to assist you in determining significant trees on your site. It is also available on our website: http://www.portlandonline.com/bds/index.cfm?c=45482&a=72538.
- Add up the total tree diameter, not counting the trees that are exempt or are in the environmental overlay.

#### **CITY OF PORTLAND OREGON - BUREAU OF DEVELOPMENT SERVICES**

#### **Exemptions**

The following trees are exempt (Section 33.630.030) from the land division tree preservation standards:

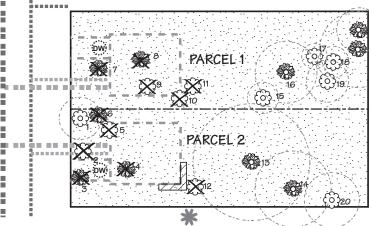
- Trees that are listed as nuisance or prohibited on the Portland Plant List;
- Trees that pose an immediate danger to life and safety as determined by an arborist;
- Trees that are dead, as determined by an arborist;
- Trees that are diseased in a manner that threatens their continued viability, or represents a significant threat
  to the health of surrounding trees, as determined by an arborist;
- Trees that are within 10 feet of an existing building that will remain on the site;
- Trees that do not have their primary trunk located on the land division site;
- Trees on the site within an Environmental Overlay Zone (these trees are subject to the regulations of Chapter 33.430, Environmental Zones);
- Trees that are less than 6-inches in diameter, and are not listed as a significant tree (see next page); and
- As authorized by Chapter 20.40 of Portland City Code, the City Forester may order the removal of a tree if they are deemed an immediate threat to the community or the urban forest.

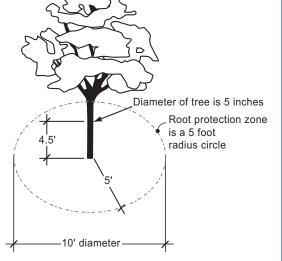
**Third,** draw a plan and determine your tree preservation option.

- Using the survey as a base, prepare a site plan showing all trees on the site and the anticipated location of future buildings, utility connections from the street to buildings, and on-site stormwater drainage facilities (such as soakage trenches if allowed);
- Draw a circle on the plan to represent the root protection zone of each tree; (see description below)
- In consultation with an arborist or registered landscape architect, determine which trees can be saved, and which trees must be removed;
- Determine which preservation option you can meet (options described below);
- If none of the options can be met, reevaluate your land division design to find other designs that preserve more trees;
- Determine the method to preserve trees through a tree preservation tract or a tree preservation plan (see additional information below);
- Tree preservation tract boundaries must be drawn on the land division base map.
- Tree preservation plans must include a written description by an arborist or landscape architect of the measures to be used to protect trees during construction.

#### What is a root protection zone?

The root protection zone is a circular area around a tree that is based on the diameter of a tree. Each one-inch diameter of the tree equals one-foot radius for the root protection zone.





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#### Tree preservation standards options

Your proposal must meet one of the five standard options below. The trees you select must be preserved using a *tree preservation tract* or a *tree preservation plan* (see below).

Option #	Total tree diameter minimum to be preserved	Signficant trees minimum to be preserved	Total tree canopy minimum to be preserved
1	at least 35 %		
2	at least 30 %	at least 50 %	
3	at least 25 %	at least 75 %	
4	at least 20 %	100 %	
5 (for sites > 1 acre)			100%

#### Things to Keep in Mind as You Choose an Option

- Do not include exempt trees in your calculations!
- Once your tree preservation proposal is approved, it is legally binding! Carefully consider the location and amount of trees to be preserved -- is your proposal realistic considering future development? Future site development or redevelopment must be consistent with the tree preservation proposal approved with the land division decision. Changes require a Type II tree review.
- If, after considering alternative designs, you cannot meet one of the five preservation options, consider the mitigation option described below (33.630.300).

#### **Tree Preservation Plans**

If you choose to preserve trees through a Tree Preservation Plan, the plan must meet the requirements of Section 33.248.065 and be completed by a certified arborist or landscape architect. Trees to be preserved must be healthy and their root protection zones must be located outside of areas proposed for structures, services, and utilities (alternative protection measures may be proposed but are subject to other requirements).

#### **Elements of a Tree Preservation Plan**

ATree Preservation Plan consists of a map and a written report. Utility plans and grading plans must be consistent with the Tree Preservation Plan. Following is a list of required items to be included in a Tree Preservation Plan (as part of a land division application):

#### Tree Preservation Plan Map:

TREE PRESERVATION ON YOUR LAND DIVISION SITE

c. The suitability of preserving each tree within the context of proposed or future development on the site.

# \_ld020\_tree\_preserv 11/13//12

## CITY OF PORTLAND OREGON - BUREAU OF DEVELOPMENT SERVICES Note any trees that are exempt per Section 33.630.030. Only an arborist or City Forester can designate trees as exempt for health reasons.

Written specifications for tree protection measures to be taken during future construction. Section 33.248.060 includes standard specifications, or a certified arborist may propose alternate means tailored to a specific situation. Standard specifications include:

- Placing a 6-foot high chain link fence secured by 8-foot metal posts driven into the ground 2 feet. The
  metal posts must have a maximum separation of 10 feet; and
- Preventing development within the root zone (no new buildings, grade changes, cuts or fills, installation
  of impervious paved surfaces, utility or drainage facilities, staging or storage of materials during construction, or vehicle maneuvering during construction).
- ☐ The report may include recommendations for future tree care, as appropriate.

#### Remember

☐ After the land division decision is made, changes to the approved Tree Preservation Plan will require a new land use review in the form of a Type II Tree Review. Once the plan is approved, it is binding, and compliance with the plan will be required as the proposed lots develop or redevelop.

#### Other plans - prepared in consultation with the arborist or landscape architect:

- ☐ A Utility Plan is required for all land divisions. The utility plan should identify the location of utility connections, trenches, drainfields, drywells, soakage trenches, etc. Tree protection must be shown on the utility plan to ensure there are no conflicts.
- ☐ A Grading Plan is required with some land divisions. At a minimum, the grading plan must show grading necessary for any street construction, on-site grading related to street frontage improvements, grading related to sewer and water main extensions, and grading necessary to install retaining walls or other structures necessary to support these improvements. Tree protection must be shown on the grading plan to ensure there are no conflicts.

#### Tree preservation tracts

You may choose to protect your trees by locating them within a tree preservation tract. A tract is part of the land division site set aside for a specific purpose. The boundary of the tract must be at least five feet from the root protection zone of any trees to be protected within the tract. During construction, a tree protection fence must be installed along the boundary of the tract or a larger area. In addition, you must:

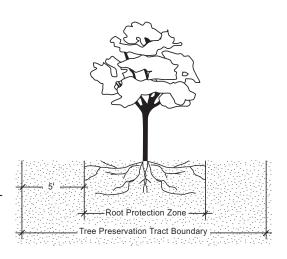
- Show the location and material of the fence on the Clearing and Grading Plan;
- Install the fence before clearing, grading, or construction starts and leave the fence in place until construction is complete; and
- Install a fence that is 6-foot high chain link secured by 8-foot metal posts driven into the ground 2 feet. The metal posts must have a maximum separation of 10 feet.

#### The mitigation option, when can it be used?

If you can't meet the tree preservation standards, you may request approval of a mitigation plan. The mitigation plan option can only be used if:

- As many trees as possible are preserved; and
- A mitigation plan is proposed that adequately compensates for the loss of trees, and equally or better meets
  the purpose of the land division tree preservation regulations (Chapter 33.630). Mitigation actions can include
  planting trees, installing an eco-roof, installing porous paving, or providing dedicated open space or other
  special-purpose tract that will remain unpaved and undeveloped, and
- It is not possible under any reasonable scenario to meet the tree preservation standards and one of the following:
- meet minimum density requirements
- meet all the service requirements of Chapters 33.651 33.654 (water, sewer, stormwater and rights-of-way; or

- implement an adopted street plan;
- On sites 15,000 sq. ft. or less, provide a practicable arrangement of lots, tracts, and streets within the site that would allow enough room for a building site on each lot.
- In E and I zones, provide a practicable arrangement of lots, tracts and streets within the site that would allow for the division of the site with enough room for a reasonable building site on each lot, considering the uses and development allowed in the zone; or
- Preserve the trees within the environmental zones on site while providing a practicable arrangement of building sites and disturbance area.
- Preserve trees within an easement that is held by a utility or service agency and was held before the application of the land division was filed.



#### Modifying other development standards to save more trees

#### Modifications of site-related development standards

Land division applicants may request to modify Zoning Code standards as part of the land division review, if the modification will help to save more trees. To approve the *modification*, the review body must find that the modification will result in the application better meeting tree preservation requirements, and will, on balance, be consistent with the purpose of the regulation being modified. The two kinds of modifications can be requested as part of the land division process: exceptions to site-related development standards (such as setbacks or on-site parking requirements), and exceptions to minimum density. Regulations that contain the word "prohibited," or a regulation that is a qualifying situation or threshold may not be modified.

Modifications of two types of standards may be requested as part of the land division process:

#### Site-related development standards

Site-related development standards such as setbacks or on-site parking requirements may be modified to help preserve additional trees on the land division site.

#### Minimum density standards

A reduction in minimum density may be approved as part of the land division review. The reduction may be granted so that the trees on the property are protected.

- · Land Divisions of 2 to 10 lots, minimum density may be reduced by 1 dwelling unit.
- Land Divisions of 11 to 20 lots, minimum density may be reduced by 2 dwelling units.
- Land Divisions of more than 20 lots, minimum density may be reduced by 3 dwelling units. Reductions greater than those listed in this paragraph are prohibited.
- The review body will approve the reduction in minimum density if they find that the reduction will result in the proposal better meeting the Tree Preservation requirements.
- If the review body approves a reduction of minimum density, trees preserved must be in a tree preservation tract.

#### Frequently asked questions

#### How important is it to locate the trees accurately on my site plan?

Very. A surveyor must locate and show the accurate location of trees on a site. If you show the trees in an incorrect location, it is likely to create problems in the future. There is limited flexibility to move lot lines and tracts at the Final Plat Review. A Tree Review is required if you wish to change an approved Tree Preservation Plan.

#### **CITY OF PORTLAND OREGON - BUREAU OF DEVELOPMENT SERVICES**

#### Am I required to have an arborist or a landscape architect do the work?

The Portland Zoning Code requires that you hire an arborist or a landscape architect to do the work required for a tree preservation plan under Section 33.630.200.B and 33.248.065. If a tree preservation tract is used as the method of protection, then an arborist need not be involved. You may want to have a certified arborist assess the health of the trees on the site before you submit your application.

#### I'm proposing to divide my property, but no new development is proposed at this time. Do I still have to meet the requirements of Chapter 33.630?

Yes. When you create a new lot, you are required to determine which trees will be preserved later, when the development of the lot occurs. Dividing land without regard to the specific needs of trees often leads to unintended tree loss. Property lines establish where future setbacks will be, and constrain the location of future buildings, which impacts the feasibility of tree preservation.

#### I'm proposing to divide my property, but one or both the lots are already developed. Do I still have to meet the requirements of Chapter 33.630?

Yes. Even where there is existing development that will remain, the tree preservation requirements apply.

#### Where do I find aerial photos of my site?

You can find aerial photos of your site on the City's web site: www.portlandmaps.com

#### Where can I find the Portland Plant List, the list of prohibited trees, and the list of nuisance trees?

You can find a copy of the Portland Plant List

- at the Development Services Center. The Portland Plant List contains a list of "Nuisance Plants" and "Prohibited Plants."
- on the City's Web site: www.portlandonline.com/bps

#### Do you have resources to help me identify significant trees?

Yes. The <u>Significant Trees Plant Identification Handbook</u> is available on our Web site at **www.portlandonline.com/bds | Land Use and Zoning | Land Division Helpful Information**. A copy may be viewed in the Development Services Center.

#### Can the City provide me with an example of a Tree Preservation Plan?

Yes. The City Forester and the Bureau of Development Services have prepared a sample tree preservation plan. It is available at the Development Services Center or on our website at <a href="http://www.portlandoregon.gov/bds">http://www.portlandoregon.gov/bds</a>.

#### Can I count the trees I'm keeping on my property towards the T1 Landscaping Standard?

Yes. The Portland Zoning Code provides an option, called the **tree preservation credit**, for trees in a tree preservation tract when that tract is outside of an Environmental Overlay Zone. This credit allows you to count the tract towards meeting the individual lot requirements of the T1 standard of Section 33.248.020, Landscaping and Screening Standards

#### What about trees in the public right of way?

The tree preservation plan requirements only apply to trees where the primary trunk is located entirely on the land division site. Contact the City Forester for more information about trees located in the public right of way – other regulations may apply.

#### What about Historic and Heritage Trees?

Historic Landmark Trees may be removed only if approved by the Historic Landmarks Commission. Heritage Trees may be removed only if approved by the City Forester. To find out if you have Historic Landmark Trees or Heritage Trees on your property, contact the Development Services Center.

#### What if a tree is located on my property line?

The tree preservation plan requirements only apply to trees where the primary trunk is located entirely on the Land Division site.

For more information visit or call the Planning and Zoning staff at the Development Services Center at 1900 SW 4th Avenue, Suite 1500, 503-823-7526 For current Portland Zoning Code visit www.portlandonline.com/bds/zoningcode

Information is subject to change.

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