

CHAPTER 20.129
SIGNIFICANT TREES AND TREE CANOPY REQUIREMENTS

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20.129.010 Purpose.

It is the purpose of this chapter is to:

- (1) Provide incentives for preserving significant trees and to require the replacement of significant trees at specified ratios when they are removed.
- (2) Mitigate the environmental and aesthetic consequences of tree removal in land development, through replacement of significant trees to achieve a goal of no net loss of significant trees throughout the city, and by establishing tree canopy standards applicable to certain new development.
- (3) Provide measures to protect significant trees that may be impacted during construction activities.
- (4) Maintain and protect the public health, safety, and general welfare.
- (5) Preserve the aesthetic, ecological, and economic benefits of forests and tree-covered areas in Port Orchard including:
 - (a) Providing varied and rich habitats for wildlife;
 - (b) Absorbing carbon dioxide;
 - (c) Moderating the effects of winds and temperatures;
 - (d) Stabilizing and enriching the soil;
 - (e) Slowing runoff from precipitation and reducing soil erosion;
 - (f) Improving air quality;
 - (g) Improving water quality;
 - (h) Masking unwanted sound;
 - (i) Providing visual relief and screening;
 - (j) Providing recreational benefits;
 - (k) Enhancing the economic value of developments; and
 - (l) Providing a valuable asset to the community.

20.129.020 Applicability.

- (1) The significant tree requirements in this chapter apply to all significant trees in the city in all zones, with the exception of those exemptions listed in section (3) below.
- (2) The tree canopy requirements in this chapter apply to all residential development, with the exception of those exemptions listed in section (3) below.
- (3) Exemptions: The following situations, activities, and projects are exempt from the significant tree protection and tree canopy requirements of this section, unless the tree is located in a critical area as identified in POMC 20.162:
 - (a) Construction of public road network elements, including sidewalks, and public or private utilities including utility easements.
 - (b) Public parks projects, including construction and maintenance of public parks and trails.
 - (c) Trees that interfere with overhead utility lines.
 - (d) Trees that are causing damage to building foundations.
 - (e) Normal pruning and maintenance of trees that does not damage the tree or reduce the viability of the tree’s normally expected growth and lifespan.
 - (f) Removal of any hazardous, dead or diseased trees necessary to remedy an urgent threat to persons or property, as determined by the City based on an arborist report.
 - (g) On an individual lot less than 10,890 square feet in size which was not part of a subdivision or short plat subject to current or past city tree canopy regulations, the new construction or reconstruction of, or an addition to, one single-family detached house, one duplex, or residential accessory structures (including one detached accessory dwelling unit) is not subject to tree canopy requirements. Requirements for protection of significant trees still apply.
 - (h) Trees in planters or other containers.
 - (i) Commercial nurseries or Christmas tree farms.
 - (j) Emergencies from storm damage resulting in an immediate threat to persons or property from a partially uprooted, split or snapped tree, when the City and an arborist cannot be immediately contacted. The storm-damaged tree shall be visually documented (photographed) prior to removal, and the City shall be contacted as soon as possible after removal of the tree.
- (4) This chapter shall not be construed to authorize the removal of trees where tree removal is not otherwise permitted in the POMC.

20.129.030 Definitions.

- (1) “Net Site Area” means the subject site’s total (gross) site area, minus areas designated as wetlands and wetland buffers, fish and wildlife habitat areas and/or buffers, slopes over thirty percent (30%), and stormwater pond facilities.
- (2) “Significant Tree” means:
 - an evergreen tree with a minimum DBH (diameter at breast height) of 8 inches, or
 - a deciduous tree with a minimum DBH of 12 inches; and

- which has not been identified by an arborist as meeting one or more of the following criteria:
 - damaged
 - diseased
 - a safety hazard due to potential root, trunk or primary limb failure
 - new exposure to wind after having grown in a closed, forested situation.

(3) “Root Protection Zone” means that area equal to one-foot radius from the center of the tree for every one inch of tree DBH. A modified root protection zone may be established by an arborist’s individual tree evaluation.

20.129.040 Removal and replacement of significant trees.

(1) No significant tree may be removed on any property or as part of any development unless the requirements of this chapter are met.

(2) Approval of the Director is required prior to the removal of significant trees and shall be granted provided that all other applicable requirements and standards of the Port Orchard Municipal Code are met. The decision to authorize the removal of a significant tree shall be a Type 1 decision; however, an application that involves two or more procedures may be processed consistent with the procedures provided in POMC 20.22.020(2). Approval requires that the following conditions and the replacement requirements of subsection (3) are met:

(a) All significant trees located within any required landscape buffer area or required landscape planting area shall be retained, except for those activities exempted in subsection 20.129.020(3) or as otherwise indicated in subsection (b) of this section.

(b) If a significant tree drip line or root protection zone extends beyond the required buffer, the significant tree may be removed if the proposed site grading would harm the health or stability of the tree as determined by an arborist. If an arborist identifies a significant tree to be retained as a hazard tree due to blow down risk, the significant tree may be removed.

(c) This provision shall not be construed as to prohibit mass grading provided that significant trees are replaced in accordance with this chapter.

(3) Significant trees that are removed shall be replaced with trees meeting the following requirements:

(a) Trees must be replaced at the rates described in Table 20.129.040.A and at no less than a 1:1 ratio for any proposed development. If the number of replacement trees required in accordance with Table 20.129.040.A results in a fraction, the number shall be rounded up to the nearest whole number.

Table 20.129.040.A Replacement tree quantity - Evergreen	
Significant Tree Diameter	Number of Replacement Trees Required
8-16 inches diameter	.5
16-20 inches diameter	.75
20-24 inches diameter	1
24-30 inches diameter	1.5
30-36 inches diameter	2
Greater than 36 inches diameter	3

Table 20.129.040.B Replacement tree quantity - Deciduous	
Significant Tree Diameter	Number of Replacement Trees Required
12-20 inches diameter	.5
20-26 inches diameter	.75
26-30 inches diameter	1
30-36 inches diameter	2
Greater than 36 inches diameter	3

(b) To incentivize significant tree retention, every significant tree that is retained shall reduce the required number of replacement trees by three (3) trees.

(c) Replacement deciduous trees shall be fully branched, have a dominant leader branch, have a minimum caliper of one-and-one-half inches (as measured 24 inches above the root ball), and a minimum height of six feet at the time of planting as measured from the top of the leader branch to the top of the root ball.

(d) A replacement deciduous tree that has a minimum caliper of three inches (as measured 24 inches above the root ball) and a minimum height of eight feet at the time of planting as measured from the top of the leader branch to the top of the root ball may substitute for two (2) required replacement trees.

(e) Replacement evergreen trees shall be fully branched and a minimum of six feet in height, measured from the top of the leader branch to the top of the root ball, at the time of planting.

(f) Replacement trees shall primarily be those species native to the Pacific Northwest, as provided in the guidance document issued by the city's department of community development. In making a determination regarding the species of replacement trees, the director shall defer to the species selected by the property owner unless the director determines that based on the city's guidance document, the species selected is unlikely to survive for a period of at least ten years, represents a danger or nuisance, and/or would threaten overhead or underground utilities.

(g) The property owner shall maintain all replacement trees in a healthy condition. The property owner shall be obligated to replace any replacement tree that dies, becomes diseased, or is removed. Replacement trees shall not be removed except when they are moved to another location in accordance with this chapter.

(h) The director may authorize the planting of fewer and smaller replacement trees if the property owner can demonstrate the reduction is suitable for the site conditions, neighborhood character, and the purposes of this section, and that such replacement trees will be planted in sufficient quantities to meet the intent of this section. The director may require a certifying statement from a Washington state licensed landscape architect, Washington-Certified Professional Horticulturalist (CPH), or certified arborist.

- (3) If the site does not allow for planting of replacement trees, the trees may be planted (1) on an alternative site within the city with advance approval of the site's owner and the City, or (2) on public property (such as in a city park) subject to the approval of the public works director or designee. If the trees are not planted on public property, guarantees shall be provided (such as a conservation easement) to ensure that the replacement trees will not be removed prior to reaching a minimum DBH of 8 inches for evergreen trees or 12 inches for deciduous trees (at which time they will be considered significant trees).
- (4) The director shall not authorize the planting of shrubs or bushes in lieu of required replacement trees.
- (5) For projects containing 5 or fewer significant trees, the required replacement trees planted shall be in addition to other required trees installed to satisfy street tree and landscaping buffer, parking lot, and other landscape area requirements. For projects on non-forested sites containing more than 5 significant trees, up to seventy-five percent (75%) of the required replacement trees to be planted may be satisfied by planting trees within required or proposed landscaping areas including but not limited to landscape buffers and parking lot islands as specified in POMC 20.128. For projects on forested sites containing more than 5 significant trees, up to one hundred percent (100%) of the required replacement trees to be planted may be satisfied by planting trees within required or proposed landscaping areas including but not limited to landscape buffers and parking lot islands as specified in POMC 20.128. For the purposes of this section, a site is considered forested if it contains more than 20 significant trees per acre.
- (6) Guidelines for significant tree replacement. The following guidelines and requirements shall apply to significant tree replacement:
 - (a) When individual trees or tree stands are protected, replacement trees should be planted to re-establish or enhance tree clusters where they previously existed.
 - (b) Replacement trees shall be planted in locations appropriate to the species' growth habit and horticultural requirements.
 - (c) Replacement trees shall be planted in areas that connect or are adjacent to native growth protection areas or other open space, where appropriate.

(d) Replacement trees shall be integrated into the required landscape plans, if any, for a development.

(e) Replacement trees to be planted next to or under power lines shall be selected with consideration of the trees' maturation and maintenance requirements.

20.129.050 Retention and protection of significant trees associated with development proposals.

(1) Significant tree retention plan. The applicant or property owner shall submit a tree retention plan prepared by a certified arborist, horticulturalist, landscape architect, forester or other qualified professional concurrent with the underlying development permit application (such as a land disturbing activity, short subdivision, binding site plan, conditional use, building, or preliminary subdivision permit application), whichever is reviewed and approved first. The tree retention plan shall consist of:

- (a) A tree survey that identifies the location, size, and species of individual significant trees or the perimeter of stands of trees on a site;
- (b) Identification of the significant trees that are proposed to be retained; and
- (c) The location and design of intended root protection, as described in this chapter, during construction and development activities.

(2) Exemption: Significant tree retention plans shall not be required for the construction of a detached house or backyard cottage, but these projects shall comply with all other sections of this chapter.

(3) Protection of significant trees. To provide protection for significant trees that are to remain during and after development activity the following standards apply:

- (a) Prior to construction, grading, or other land development, each root protection zone is identified with a temporary chain-link or orange mesh fence with a minimum height of five feet.
- (b) No impervious surfaces, fill, excavation, or storage of construction materials shall be permitted within the root protection zone.
- (c) Alternative protection methods may be used if determined by the director to provide equal or greater significant tree protection.

(4) Damage to significant trees to be retained. Any significant trees identified in a landscape plan to be retained and subsequently damaged, as determined by the City, or removed during site development shall be replaced at a rate of three (3) trees for each one (1) damaged or removed significant tree.

20.129.060 Tree canopy requirements for residential development.

(1) New residential subdivisions, short plats, single family attached developments, and multifamily residential projects containing three (3) or more dwellings shall meet the minimum tree canopy coverage requirements set forth in Tables 20.129.060.a and .b, except as provided in subsections (3) and (4) below.

Table 20.129.060.a Tree Canopy Coverage Requirements

Type of Development	Required Tree Canopy Coverage of Development Net Site Area.
Detached Housing Residential Subdivisions, 10 or more lots.	35%
Detached Housing Residential Subdivisions and Short Plats, 5-9 lots.	30%
Detached Housing Residential Subdivisions and Short Plats, 4 or fewer lots.	20%
One single-family house or one duplex on lot equal to or larger than 10,890 sq ft (1/4 acre), not involving a subdivision or short plat	15%
Cottage Courts	30%
Duplexes, Triplexes, Attached Housing, Townhomes, 10 or more dwellings	20%
Duplexes, Triplexes, Attached Housing, Townhomes, fewer than 10 dwellings	15%
Apartment buildings	15%

(2) Calculating Existing and Future Canopy. Site tree canopy shall include all evergreen and deciduous trees six (6) feet in height or greater, excluding invasive species, within the net site area. The calculation of existing and new tree canopy shall be submitted to the City in writing by a qualified landscape designer or licensed land surveyor in accordance with Table 20.129.060.b.

Table 20.129.060.b Options for Calculating Tree Canopy Coverage

Existing Canopy to be Retained		New Canopy
Option 1 Tree Survey	Option 2 Aerial Estimation	20-Year Canopy Calculation
<ul style="list-style-type: none"> • Measure average canopy radius (r) for each tree to be retained • Calculate existing canopy area using the formula: Canopy Area (CA)=πr^2 • Total the sum of tree canopy areas and divide by net site area to obtain canopy coverage percentage 	<ul style="list-style-type: none"> • Obtain aerial imagery of site that is less than 2 years old and represents existing conditions. • Measure site boundaries • Measure canopies of individual trees or stand area using leading edges as the forest boundary • Divide total canopy measurement by the net site area to obtain canopy coverage percentage 	<p>For each proposed species:</p> <ul style="list-style-type: none"> • Calculate radius (r) of canopy at 20 years maturity • Calculate canopy coverage using the formula: CA=πr^2 • Multiply by the proposed quantity to be planted to obtain total species canopy area • Total the sum of species canopy area for all proposed species and divide by gross site area to obtain

		20-year canopy coverage percentage
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(3) Existing or new tree canopy may include street trees and may be satisfied through required landscaping as provided in POMC 20.128.

(4) To assist in the preservation and retention of significant trees and existing tree canopy, the applicant may utilize the following credits:

(a) Individual significant trees retained on site shall be counted at one hundred twenty-five percent (125%) of their actual canopy area.

(b) For clusters or stands of five (5) or more trees (with each evergreen tree a DBH minimum of 4 inches and each deciduous tree a DBH minimum of 6 inches), each tree or tree stand shall be counted at one hundred fifty percent (150%) of its actual canopy area.

(c) For clusters or stands of five (5) or more significant trees, each tree shall be counted at two hundred percent (200%) of its actual canopy area.

(d) Retained trees located within no more than twenty (20) feet of a rain garden or a bio-swale on site shall be counted at one hundred fifty percent (150%) of their actual canopy area.

(e) For subdivisions, the required on-site recreation space required may be reduced by fifty percent (50%) if forty percent (40%) or more of the site has existing tree canopy that is retained along with all native vegetation under that canopy area.

20.129.070 Tree canopy reductions. An applicant may, through a Type 1 administrative variance pursuant to POMC 20.28.150 (1) (a) (iv), seek a reduction in required tree canopy under Table 20.129.060.a of no more than ten percent (10%), when the following criteria and those in POMC 20.28.150 (1) (b) are met:

The applicant demonstrates in writing that they have made a good faith effort to comply with the tree canopy requirements within the physical constraints of the site by:

(a) Retaining as much of the tree canopy as possible on site consistent with best management practices for maintaining the health of trees; or

(b) Replanting as much of the tree canopy as possible on site consistent with best management practices for maintaining the health of trees; and

(c) The applicant proposes to plant additional understory vegetation or ground cover area, excluding lawn cover, invasive species or noxious weeds, to fulfill the remaining canopy requirement in Table 20.129.060.a not met by retention or replanting of tree canopy.

20.129.080 Tree canopy planting requirements and specifications.

(1) Trees planted to meet the tree canopy requirements in Table 20.129.060.a shall meet the following criteria:

- (a) Sites must be planted or replanted with a minimum of fifty percent (50%) evergreen species, except:
 - (i) The evergreen portion of the required planting mix may be reduced to thirty seven and one half percent (37.5%) when the deciduous mix contains exclusively indigenous species to the Puget Sound region, not including alder; and
 - (ii) Sites obtaining tree canopy requirements solely through street trees are exempt from the requirement to include evergreen species in the planting mix.
- (b) Sites requiring planting or replanting of tree canopy must plant no more than thirty percent (30%) of trees from the same species and no more than sixty percent (60%) of trees from the same taxonomic family; and
- (c) Replacement trees shall be planted in locations appropriate to the species' growth habit and horticultural requirements.

20.129.090 Tree canopy protection measures.

- (1) The following tree protection measures shall be taken during clearing or construction where existing tree canopy is being retained:
 - (a) Tree protective fencing shall be installed along the outer edge of the drip line surrounding the trees retained in order to protect the trees during any land disturbance activities, and fencing shall not be moved to facilitate grading or other construction activity within the protected area;
 - (b) Tree protective fencing shall be a minimum height of three feet, visible and of durable construction (orange polyethylene laminar fencing is acceptable); and
 - (c) Signs must be posted on the fence reading "Tree Protection Area."
 - (d) If tree canopy to be retained is damaged or removed during clearing or construction, that tree canopy shall be restored so that the required percentage of tree canopy is provided according to the requirements of this chapter.
- (2) On existing lots or developed sites, if trees required to meet tree canopy percentage requirements are removed, replacement trees meeting the requirements of section 20.129.080 shall be planted and maintained.