

20.129.050 Tree Canopy Requirements.

20.129.010 Purpose. It is the purpose of this chapter to:

- (1) Provide incentives for preserving significant trees;
- (2) Mitigate the environmental and aesthetic consequences of tree removal in land development 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; and
- (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 Definitions.

Unless the context clearly requires otherwise, the definitions in this section apply throughout this chapter.

- (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 fish and wildlife habitat buffers, slopes over thirty percent (30%), and stormwater pond facilities.

20.129.030 Applicability. The tree canopy requirements found in this chapter shall apply to all residential development applications. The following activities are exempt from the tree canopy requirements of this section:

- (1) Removal of any hazardous, dead or diseased trees, and as necessary to remedy an immediate threat to person or property as determined by a letter from a qualified arborist;
- (2) Construction of a single detached house, duplex, or residential accessory structure on an individual lot that was not part of a subdivision or short plat subject to current or past city tree canopy or significant tree retention requirements;
- (3) Construction or maintenance of public or private road network elements, and public or private utilities including utility easements not related to a subdivision, short plat, or multifamily development project;
- (4) Construction or maintenance of public parks and trails; and
- (5) Pruning and maintenance of trees.

20.129.040 Significant Tree Retention. All significant trees located within any required landscape buffer as required in POMC 20.128 shall be retained, except activities exempted by 20.129.030. If a significant tree drip line or root protection area extend 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 risks, the significant tree may be removed.

20.129.050 Tree Canopy Requirements for residential development. New residential subdivisions, short plats, single family attached, and multifamily residential projects containing more than three (3) dwellings shall meet the minimum tree canopy coverage requirements set forth in Table 20.129.050, except as provided section 20.129.060 and 20.129.090.

Table 20.129.050 Tree Canopy Coverage Requirements

Type of Development	Required Tree Canopy Coverage of Development Net Site Area.
Detached Housing Residential Subdivisions, 10 or more lots.	30%
Detached Housing Residential Subdivisions and Short Plats, 5-9 lots.	25%
Detached Housing Residential Subdivisions and Short Plats, 4 or fewer lots.	20%
Cottage Courts	30%
Duplexes, Attached Housing, Townhomes, 10 or more dwellings	20%
Duplexes, Attached Housing, Townhomes, fewer than 10 dwellings	15%
Apartment buildings	15%

20.129.060 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 or noxious weeds, within the net site area.

(1) The calculation of existing and new tree canopy shall be submitted in writing by a qualified landscape designer or licensed land surveyor in accordance with Table 20.129.060.

Table 20.129.060.

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 	<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 	For each proposed species: <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

<ul style="list-style-type: none"> • Total the sum of tree canopy areas and divide by net site area to obtain canopy coverage percentage 	<p>using leading edges as the forest boundary</p> <ul style="list-style-type: none"> • Divide total canopy measurement by the net site area to obtain canopy coverage percentage 	<p>quantity to be planted to obtain total species canopy area</p> <ul style="list-style-type: none"> • 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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(2) Existing or New tree canopy may include street trees and may be satisfied through required landscaping as provided in 20.128.

(3) 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, each tree 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 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) 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 New Tree Planting Requirements and Specifications.

(1) Trees planted to meet tree canopy requirements Table 20.129.050 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.

20.129.080 Tree Protection Measures. The following tree protection measures shall be taken during clearing or construction where existing tree canopy is being retained:

(1) 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;

- (2) Tree protective fencing shall be a minimum height of three feet, visible and of durable construction (orange polyethylene laminar fencing is acceptable); and
- (3) Signs must be posted on the fence reading "Tree Protection Area."

20.129.090 Tree Canopy Reductions. An applicant may, by 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 by no more than ten percent (10%) when the following criteria and those in POMC 20.28.150 (1) (b) are met:

- (a) 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:
 - (i) Retaining as much of the tree canopy as possible on site consistent with best management practices for maintaining the health of trees; or
 - (ii) Replanting as much of the tree canopy as possible on site consistent with best management practices for maintaining the health of trees; and
- (b) 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 not met by retention or replanting of tree canopy.

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