

**Page 10: [1] Commented [GC42R41] Gina Clark 11/25/2019 2:10:00 PM**

Most of this is taken directly from staff language and the Tier 1 language they drafted. We tried to simplify and not make it overly complex. If you limit design, you also potentially limit the flexibility to move that building around the tree. When we met as a working group, we were trying to presser the tree while allowing the building to be built. The tree was the priority here in Tier 1. The primary building took second position. But if you allow flexible design, and site design, with the city and builder working together, you improve chances of trees being retained.

And certainly can bring in others with more experience than I to help solidify utility issue in more accurate language. Happy to work with Public Works to do so.

**Page 10: [2] Commented [SM43] Scott Morris 11/24/2019 11:58:00 PM**

FHNA is unclear as to what "primary building" means. FHNA notes that the staff's proposed amendments for Tier 1 tree retention are more specific than these. It's not clear whether this sentence is intended to limit the general rule, stated above, that Tier 1 trees "shall be retained" subject to items i through iv above.

**Page 10: [3] Commented [GC44R43] Gina Clark 11/25/2019 2:08:00 PM**

Primary building is the house itself (primary residence). It is being used to separate it from any ADU, workshop, etc, on the lot that may not be subject to these regulations for a variety of reasons.

**Page 10: [4] Commented [SM45] Scott Morris 11/25/2019 12:06:00 AM**

The public must have a meaningful period to comment on the tree retention plan and to appeal approval of the plan to a hearing examiner. FHNA supports the recommendation that retention measures be posted online. This will ensure that neighbors have access to relevant project information during the construction process.

**Page 10: [5] Commented [SM46] Scott Morris 11/25/2019 12:01:00 AM**

FHNA does not regard this "negative option" favoring a builder to be an acceptable outcome. It seems to put all of the leverage in the hands of the builder, who can simply refuse to agree with the City during the 21 business day conference period.

**Page 10: [6] Commented [GC47R46] Gina Clark 11/25/2019 2:50:00 PM**

While MABKS hears the concerns of FHNA, unless the requirements in staff's current Tier 2 draft proposal revert back to reflect original agreements made by the Working Group, MABKS is inclined to maintain it's position on this modified Tier 1 proposal which it feels offers adequate protections for the city, Tier 1 trees, and community.

**Page 10: [7] Commented [SM48] Scott Morris 11/25/2019 12:06:00 AM**

The ordinance language regarding Tier 2 tree retention should make very clear that Tier 2 trees will be retained up to a specified tree credit density (which rationally relates to a meaningful tree canopy percentage, e.g. 30%), subject to the builders' protections enumerated in subsection v below.

**Page 12: [8] Commented [GC58R57] Gina Clark 11/25/2019 2:24:00 PM**

I suggest we all take a step back and try to think outside the box. First it is extremely difficult to tie a credit system to a canopy goal. Please have professionals do it for us and do it well if they can. I would be exceedingly happy if they would. Second, this code format is taken from North Bend where trees and tree retention are paramount. Third, this is an attempt to NOT talk about credits per acre (30, 45, 50 or 70) OR count canopy, but to talk about retention as a measurement tree retention per square feet, proportioned based on land uses, to share the responsibility among ALL uses in the city, not just single family residential. AND to recognize that high density residential, missing middle housing, and other challenging, smaller lots are simply incapable of retaining 70 tree credits per acre in many cases as FHNA proposes. The city is proposing a "bold" new plan of densification and housing choice that will require thinking differently about tree retention too. This can offer that. And 40% is a number! It's not necessarily the "right" number and be all and end all through credits only. You can get there different ways. Are these the right proportions? I don't know. We should probably link them to the PPAs and urban land uses in the city's 2018 UTC Assessment for more accurate numbers.





## KIRKLAND ZONING CODE CHAPTER 95 – TREE RETENTION AND SUPPLEMENTAL REPLANTING

### Sections:

- 95.05 Purpose and Intent
- 95.10 Definitions
- 95.22 Tree Removal Permit Exemptions
- 95.24 Public Tree Removal and Pruning
- 95.26 Tree Retention Associated with Development Activity
- 95.28 Supplemental Tree Planting Requirements Related to Development Activity
- 95.30 Tree Location Prioritization
- 95.32 Retention Incentives
- 95.34 Tree and Soil Protection During Development Activity
- 95.36 Off-Site Tree Planting or Fee In-Lieu
- 95.38 Enforcement and Penalties
- 95.50 City Forestry Account

### 95.05 Purpose and Intent.

The purpose of this chapter is to establish process and standards for the preservation of trees, to retain or plant viable trees in the right location on development sites, and to maintain a sustainable urban canopy in the City of Kirkland. Specifically, it is the intent of this chapter to:

- Promote the public health, safety, and welfare of the citizens of Kirkland without preventing the reasonable development of land;
- Ensure equitable access to trees and the benefits they provide to all the citizens of Kirkland;
- Implement the goals and objectives of the City's Comprehensive Plan, the City's Urban Forest Strategic Management Plan, the City's Urban Tree Canopy Assessment, and the State Environmental Policy Act (SEPA);
- Promote flexible site planning and building practices that maintain the City's natural topography, soils, and vegetation features;
- Provide an appropriate amount and quality of tree retention related to future land uses;
- Improve the aesthetic quality of the built environment by reducing impacts on wetlands, streams and the natural environment
- Minimize surface and ground water runoff, soil erosion, land instability, sedimentation, siltation, and pollution of waterways;
- Provide for increased permeable surfaces that allow for infiltration of surface water into ground water resources, reduction in the quantity of storm water discharge, and improve the quality of storm water discharge;
- Improve noise and air pollution, mitigate urban heat islands, and decrease the overall impacts of climate change;
- Provide visual relief, screening buffers, and insulating protection from severe weather conditions;
- Providing habitat, cover, food supply and corridors for a diversity of fish and wildlife, and

**Commented [SM1]:** FHNA has no reviewed this section closely but notes that it should make explicit reference to the Code's role in supporting achievement and adherence to the City's 40% canopy goal.

recreational uses for citizens;

- Provide for regulations that are clear, understandable, user friendly, easy to administer, and cost effective to enforce.

#### 95.10 Definitions.

The following definitions shall apply throughout this chapter unless the context clearly indicates otherwise. Definitions that apply throughout this code are also located in Chapter 5 KZC.

1. Caliper – Caliper of the trunk shall be the trunk diameter measured six (6) inches above the ground for up to and including 4-inch caliper size and 12-inches above the ground for larger sizes.
2. Critical Root Zone (CRZ) – The area surrounding a tree at a distance from the trunk, which is equal to one (1) foot for every inch of trunk diameter measured at 4.5 feet from grade or otherwise determined by a qualified professional. Example: a 24-inch DBH tree has a 24-foot radius CRZ encircling the trunk.
3. Crown – The area of a tree containing leaf- or needle-bearing branches.
4. Diameter at Breast Height (DBH) – The diameter or thickness of a tree trunk measured at 4.5 feet above average grade. Trees whose stems diverge below ground level are considered separate trees. A tree that has one stem at ground level but that splits into two or more stems above ground level use the following method to determine DBH. Where a tree splits into several trunks below typical DBH, the DBH for the tree is the square root of the sum of the DBH for each individual stem squared (example with three stems:  $DBH = \text{square root of } [(stem\ 1)^2 + (stem\ 2)^2 + (stem\ 3)^2]$ ).
5. Dripline – The distance from the tree trunk that is equal to the furthest extent of the tree's crown.
6. Group of Trees – A group of three (3) or more significant trees with overlapping or touching crowns, one of which is a minimum 30-inch DBH, or a group of five (5) or more significant trees, one of which is a minimum 24-inch DBH. A Group of Trees is considered a Tier 1 tree.
7. Hazard Tree – A tree assessed by a qualified arborist as having an Imminent or High-risk rating using the ISA Tree Risk Assessment Qualification (TRAQ) method in its most current form, as applied in KZC 95.XX.XX.
8. Heavily Wooded Site: A subject property that has a number of trees with crowns that cover at least 40 percent of the property
9. Hedge – Five (5) or more trees of the same species planted in linear formation, typically to function as a screen or barrier. Hedges are not Tier 1 trees or Groups of Trees.
10. Inner Critical Root Zone – An area half the distance of the Critical Root Zone. Example: a 24-inch DBH tree has a 12-foot radius Inner Critical Root Zone encircling the trunk.
11. ISA – International Society of Arboriculture
12. Impact – A condition or activity that affects any part of a tree including the trunk, branches, and Critical Root Zone.
13. Landmark Tree – A significant tree with a minimum single trunk 30-inch DBH in excellent-good condition per KZC 95 XX.XX, ~~likely to survive at least additional years~~, and does not qualify for removal as a hazard, nuisance, or emergency according to this chapter.
14. Limits of Disturbance - The boundary between the area of minimum protection around a tree and the allowable site disturbance as determined by a qualified professional.
15. Minimum Tree Density – The minimum number of trees per acre a development site must achieve through tree retention or supplemental planting measured in tree unit credits.
16. Nuisance Tree -A tree that meets any of the following criteria:
  - a. Is causing obvious physical damage to private or public structures, including but not limited

**Commented [SM2]:** FHNA has commented that the Landmark definition should encompass trees whose trunk diameters are 26" or greater.

**Commented [SM3]:** Presumably unnecessary if the tree is in good – to-excellent condition.

**Commented [SM4]:** FHNA has misgivings about reliance on LoDs that are defined by "qualified professionals". We believe that the standard should either objectively stated (i.e. area necessary to preserve health/viability of tree) or defined as an area to be determined by the City arborist in his/her reasonable judgment.



- to: sidewalk, curb, road, driveway, parking lot, building foundation, utilities or roof; or
  - b. Has sustained irreversible damage from past maintenance practices; or
  - c. Causes increased maintenance or potential safety hazard such as from thorns, roots or fruit.
17. Planning Official – Designee of the City of Kirkland's Planning and Building Director.
  18. Public Works Official – Designee of the City of Kirkland's Public Works Director.
  19. Qualified Professional – An individual with relevant education and training in arboriculture or urban forestry, having two (2) or more of the following credentials:
    - a. International Society of Arboriculture (ISA) Certified Arborist;
    - b. Tree Risk Assessor Qualification (TRAQ) as established by the ISA (or equivalent);
    - c. American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
    - d. Society of American Foresters (SAF) Certified Forester for Forest Management Plans; or
    - e. Board Certified Master Arborist as established by the ISA.
  20. Significant Tree – A tree that is at least six (6) inches in diameter at breast height (DBH) as measured at 4.5 feet from the ground.
  21. Street Tree – A tree located within the public right-of-way; provided, that if the trunk of the tree straddles the boundary line of the public right-of-way and the abutting property, it shall be considered to be on the abutting property and subject to the provisions of this chapter.
  22. Tier 1 – Level of tree retention and supplemental planting standards applied to Landmark trees and a Group of Trees associated with development.
  23. Tier 2 – Level of retention and supplemental planting standards applied to significant trees associated with development.
  24. Tree Topping – The severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree as to remove the normal canopy and disfigure the tree.
  25. Tree Removal – The removal of a tree, through either direct or indirect actions, including but not limited to: (1) clearing, damaging, girdling or poisoning resulting in an unhealthy or dead tree; (2) removal of more than 25% of the live crown; or (3) damage to roots or trunk that is likely to destroy the tree's structural integrity.
  26. Tree Unit Credit – The measurement for assessing existing trees, retention thereof, and planting of new trees.
  27. Public Tree – A tree located in parks, along public rights-of-way, on City property.
  28. Windfirm – A condition of a tree in which it withstands average peak local wind speeds and gusts.

**Commented [SM5]:** FHNA notes but cannot comment on the fact that the staff's proposed definition of topping is different. Perhaps the distinction is resolved by the reference in the "tree removal" definition to the topping of 25% of the tree crown

## 95.20 Tree Removal Permit Exemptions.

The following are exempt from the provisions of this chapter:

1. Emergency Tree Removal. Any tree that poses an imminent threat to life or property may be removed. The City must be notified within seven (7) days of the emergency tree removal with evidence of the imminent threat. If the Planning Official determines the emergency was not warranted, the removal will be subject to code enforcement including fines and restoration pursuant to section 95.XX.XX.
2. Utility Maintenance. If pruning cannot first solve an interruption of service, trees may be removed by the City or utility provider. Utility maintenance shall conform to a City-approved Utility Vegetation Management Plan.

3. Commercial Nurseries or Tree Farms. A nursery or tree farm owner may remove trees that are being grown to be sold as Christmas or landscape trees.

#### 95.22 Public Tree Removal and Pruning.

The purpose of this section is to establish process and standards for tree removal and pruning on public property.

1. Public Tree Removal. Other than City crews, no person, directly or indirectly, shall remove any tree on any City property, or any tree in the public right-of-way, without first obtaining a tree removal permit unless the tree is determined to be a hazard or nuisance.
2. Public Tree Pruning. Any public tree pruning shall conform to the most recent version of the American National Standards Institute (ANSI) A300 - Part 1 pruning standards or as outlined in an approved Utility Vegetation Management Plan.
  - a. Parks, Unmaintained City Right of Way, Stormwater and Other City Facilities. Other than City crews, no person, directly or indirectly, shall prune, trim, modify, alter or damage any tree in a public park or on any other City property without first obtaining a Public Tree Pruning permit as provided in this chapter.
  - b. Street Trees. It is the responsibility of the adjacent property owner to maintain street trees abutting their property, which may include minor pruning. The City reserves the right to have City or utility crews perform routine pruning and maintenance of street trees.

**Commented [SM6]:** FHNA strongly advocates the addition of a sentence that obligates the City to take all reasonable steps, during plan review of a project and during public works maintenance or construction, to retain healthy significant trees and to promptly plant replacement trees.

#### 95.24 Private Property Tree Removal and Pruning with No Development Activity.

The purpose of this section is to establish process and standards for private property tree removal and pruning with no development activity.

1. Tree Pruning on Private Property. Any private property owner may prune trees on their property without a permit, except authorization from the City is required for work in critical areas or buffers.
2. Tree Removal Exceptions. Property owners may remove a maximum number of significant trees in one twelve-month period based on lot size, with the following exceptions:
  - a. Property owners may not remove trees ~~are not protected~~ under a Voluntary Tree Conservation Easement;
  - b. Trees that are within the '5-Year Maintenance Covenant' period following development activity may not be cut;
  - c. There is ~~no an~~ application for development on the site;
  - d. Per Table 95.XX.XX, a private property owner may borrow against the maximum number of trees that may be removed in one twelve-month period with notice provided to the Planning Official. No permit is required. The owner may borrow up to two (2) years of future removal allowances. The property owner may not remove additional trees until the future years have expired.
3. Removal of Significant Trees with Permit Required. The maximum number of significant trees allowed to be removed in one twelve (12) month period is based on lot size. Table 95.XX.XX provides the maximum number of trees that may be removed. If removal exceeds these numbers, a permit is required.

**Commented [SM7]:** Typo here?

**Commented [SM8]:** Exceptions should be noted for critical areas, wetland buffers, and Holmes Point Overlay properties

**Commented [SM9]:** Another typo?

**Commented [SM10]:** FHNA is not opposed to this suggestion. However, if the suggestion is adopted, the number of trees to be removed each year should be lowered, even for larger lots. Otherwise, the owner of a ¼ acre lot would be allowed to remove 12 significant trees in a single year or 24 trees over a 4 year period, without having to plant any replacement trees so long as a minimum number trees are left on the lot.



Table 95.XX.X

REMOVAL OF TREES ON PRIVATE PROPERTY

LOT SIZE	MAXIMUM NUMBER OF SIGNIFICANT TREES ALLOWED TO BE REMOVED EVERY 12 MONTHS
Lots up to 10,000 sq. ft.	2
Lots 10,000 to 20,000 sq. ft.	4
Lots 20,000 sq. ft. or greater	6
Lots over 35,000 square feet with a Forest Management Plan	>6
<i>Landowner may borrow against two (2) future years' removal allowances</i>	

**Commented [SM11]:** See preceding comment. These allowances for larger lots should be lowered if owners are permitted to borrow against allowances for future years.

**Commented [SM12]:** If allowances are made for the removal of more trees on larger lots the minimum number of trees to be retained by homeowners on such lots should be raised as well.

4. Significant Tree Removal Permit. Private property owners requesting to remove trees exceeding the maximum number allowed per twelve months based on lot size, shall submit a completed permit application to the City Department of Planning and Building. The permit application shall include:
  - a. A site plan showing the approximate location of significant trees, size (DBH) and species, along with the location of structures, driveways, access ways and easements;
  - b. For required replacement trees, a planting plan showing location, size and species of the new trees in accordance to standards set forth in KZC 95.XX.XX, Supplemental Tree Planting Requirements.
5. Tree Removal Permit Application Review and Appeals.
  - a. For requests exceeding Table 95.XX.X, the City shall review the application within 21 calendar days and either approve, approve with conditions or modifications, deny, or request additional information. Any decision to deny shall be in writing along with the reasons for the denial and the appeal process.
  - b. The decision of the Planning Official is appealable using the applicable appeal provisions of KZC 145.
  - c. Tree removal shall be completed within one (1) year from the date of permit approval.
6. Removal of Hazard or Nuisance Trees. Any private property owner seeking to remove any number of significant trees which are a hazard or nuisance in excess of their standard allowance from private property or the public right-of-way shall first obtain approval of a tree removal permit and meet the requirements of this subsection.
  - a. Tree Risk Assessment. If the nuisance or hazard condition is not obvious, a tree risk assessment prepared by a qualified professional explaining how the tree(s) meet the definition of a nuisance or hazard tree is required. Removal of nuisance or hazard trees does not count toward the tree removal limit if the nuisance or hazard is verified.
  - b. Trees in Critical Areas or Critical Areas Buffers. See Chapter 90 KZC.
  - c. The removal of any tree in the Holmes Point Overlay Zone requires the planting of a native tree of a minimum of six (6) feet in height in proximity to where the removed tree was

**Commented [SM13]:** The insertion of review deadlines begs the question of what will happen if the deadline is not met. Before deadlines are inserted into the code it would be prudent to ask how long it currently takes the City to process applications, how that timeframe compares to the review cycles of other cities, and what additional resources might be required to ensure that the City can meet specified deadlines.

located. Selection of native species and timing of installation shall be approved by the Planning Official.

- d. **Removal of Unreasonable Obstruction.** The unreasonable obstruction of views, sunlight or solar access by planting, uncontrolled growth or maintenance of trees satisfying the minimum requirements for relief in KZC XX.XX.X constitutes a private nuisance subject to redress as provided in KZC XX.XX.X. If a person shall plant, maintain or permit to grow any tree which unreasonably obstructs the view from, sunlight from reaching, or access to solar power to the primary living or entertainment area of any other parcel of property within the City of Kirkland as set forth in KZC XX.XX.XX, then a complainant shall have rights set forth in this chapter. *(This will require writing and adoption of a new code section acknowledging the importance, and sometimes conflicts, that arise between trees, solar, light and views, and neighboring properties/individual properties. Please reference Medina Municipal Code, Chapter 18.16)*

**Commented [SM14]:** While FHN/ would like to review the Medina code to see how a scheme to allow for the removal of "obstructing" trees would work, FHNA finds the concept that one property owner can force a neighbor to remove a tree in order to preserve or create an easement of light and air for the benefit of the complaining property owner to be highly problematic. Wouldn't the logical conclusion that one property owner can prohibit a neighbor from building a house that blocks that property owner's view o casts that property owner's "primary living or entertainment area"?

7. **Forest Management Plan.** A private property owner seeking to remove trees on developed, heavily wooded sites of at least 35,000 square feet in size where tree removal exceeds the allowances of KZC 95.XX.XX and is not exempt under KZC 95.XX, Tree Removal Exemptions, may need to submit a Forest Management Plan.

- a. **Forest Management Plan Requirements.** A Forest Management Plan must be developed by a qualified professional and shall include the following:
- i. A site plan depicting the location of all significant (a survey identifying tree locations is not required) with a numbering system of the trees (with corresponding tags on trees in the field). The site plan shall include size (DBH), species, and condition of each tree;
  - ii. Identification of trees to be removed, including reasons for their removal and a description of pursuant to subsection (11)(b) of this section;
  - iii. A reforestation plan that includes location, size, species, and timing of installation.
- b. **Forest Management Plan Standards.** The following Forest Plan Management standards shall apply:
- i. Trees to remain should be dominant or co-dominant in the stand, healthy and windfirm.
  - ii. No removal of trees from critical areas and buffers, unless otherwise permitted.
  - iii. No removal of Landmark trees or dedicated Group of Trees, unless otherwise permitted.
  - iv. No removal of trees that would cause trees on adjacent properties to become hazardous.
  - v. The reforestation plan ensures perpetuity of the wooded areas. The size of planted trees for reforestation shall be a minimum of three (3) feet tall.
  - vi. Logging operations shall be conducted as to expose the smallest practical area of soil to erosion for the least possible time. To control erosion, native shrubs, ground cover and stumps shall be retained where feasible. Where not feasible, appropriate erosion control measures to be approved by the City shall be implemented.
  - vii. Removal of tree debris shall be done pursuant to Kirkland Fire Department standards.
  - viii. Recommended maintenance prescription for retained trees with a specific timeline.

**Commented [SM15]:** FHNA supports the ability of the owner of a smaller lot to remove trees in excess of that owner's yearly allowance, subject to replanting requirements. This is admittedly a different concept than the City's current Forest Management Plan, which has been restated here. The concept of a permit-based tree removal plan for smaller lots would need to be fleshed out in a new code section.



- ix. The Planning Official may require performance security pursuant to KZC 175 in order to assure reforestation requirements of the approved forest management plan.

#### **95.26 Tree Retention Associated with Development Activity.**

1. **Tree Retention Purpose.** The City and applicant shall work collaboratively to retain trees, comply with private property rights, and work towards a viable citywide canopy goal.
2. **Tree Retention Plan.** For all development, a Tree Retention Plan is required to be submitted with the initial land use application and/or clearing and grading permit application. The qualified professional arborist and surveyor shall work together to identify, tag, and survey all significant trees. The city shall work with the applicant in the early planning stages to assist as possible.
3. **Modifications to the Tree Retention Plan.** Modifications may be approved pursuant to the following criteria:
  - a) **Modification Prior to Development or Construction Activity -** The Director may approve a modification request to remove Tier 1 or Tier 2 trees previously identified for retention if:
    - i. Tier 1 or Tier 2 trees inventoried in the original Tree Retention Plan have not yet been removed;
    - ii. An updated arborist report and site development plan is submitted to the Director outlining the reasons retention onsite is untenable as proposed in the original plan.
    - iii. The updated arborist report provides alternatives for tree retention and/or planting of Tier 1 or Tier 2 previously identified for retention.
    - iv. The modified, alternative plan is approved by the City within twenty-one (21) business days and shall be approved by the Director.
    - v. The updated arborist report and alternative plan, once approved by the Director, shall be posted on the project website that is maintained by the Planning Official, and available to the public.
  - b) **Modification During Development or Construction –**
    - i. Significant trees may be identified for retention during plan development phases that present potential conflicts with utilities, driveways, home footprints, excavations, and other planned improvements.
    - ii. These trees, planned to retain in good faith, may be found during construction activities to present conflicts.
    - iii. If conflicts between construction and trees arise that present a potential challenge to retention, the City-designated and applicant arborists, as well as the City's site inspector, shall schedule a field meeting within seven (7) business days.
    - iv. The field meeting shall determine:
      - a. Agreed upon measures to retain the originally proposed tree(s) within the existing building footprints or site design.
      - b. Agreed upon measures to retain the originally proposed tree(s) outside of the existing building footprints or site design, requiring flexible site and building design adjustments that shall be approved by the City no more than fourteen (14) business days after site design or building plan modification review.
      - c. If agreement cannot be reached by the City and applicant within twenty-one (21) business days of notice of conflict, the tree(s) may be removed.

**Commented [SM16]:** See comments above regarding review deadlines that would be imposed on the City.

**Commented [SM17]:** What is the trigger? In other words, the meeting should be held within 7 business days after...a request from the construction applicant for such a meeting?

- d. If tree(s) are removed, supplemental replanting standards of this chapter shall apply.
- 4. Tree Retention Plan Components. The tree retention plan shall contain the following, unless waived by the Planning Official:
  - a. A tree inventory and report containing the following:
    - i. A numbering system of all existing significant trees on the subject property (with corresponding tags on trees); the inventory must also include significant trees on adjacent property with driplines extending over the subject property line;
    - ii. Limits of disturbance (LOD) of all existing significant trees (including approximate LOD of off-site trees with overhanging driplines);
    - iii. Brief general health or condition rating of these trees (i.e.: poor, fair, good, excellent, etc.);
    - iv. Proposed tree status (retained or removed);
    - v. Tree type or species, DBH, assessment of health and structural viability, windfirmness following development, and tree unit credit pursuant to this chapter; and
  - a. A site plan depicting the following:
    - i. Location of all proposed improvements, including building footprint, access, utilities, applicable setbacks, buffers, and required landscaped areas clearly identified. If a short plat or subdivision is being proposed and the location of all proposed improvements cannot be established, a phased tree retention plan review is required as described in subsection (6)(a) of this section;
    - ii. Accurate location of significant trees on the subject property (surveyed locations may be required). The site plan must also include the approximate trunk location and critical root zone of significant trees that are on adjacent property with driplines extending over the subject property line;
    - iii. Trees labeled corresponding to the tree inventory numbering system;
    - iv. Location of tree protection measures;
    - v. Indicate LOD drawn to scale around all trees potentially impacted by site disturbances resulting from grading, demolition, or construction activities (including approximate LOD of off-site trees with overhanging driplines);
    - vi. Proposed tree status (trees to be removed or retained) noted by an 'X' or by ghosting out; and
    - vii. Proposed locations of any supplemental trees and any required trees to meet tree density or minimum tree unit credits as outlined in KZC 95.33.
  - c. An arborist report containing the following:
    - i. A complete description of each tree's health, condition, and viability;
    - ii. A description of the method(s) used to determine the limits of disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees);
    - iii. Any special instructions specifically outlining any work proposed within the limits of the disturbance protection area (i.e., hand-digging, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare);
    - iv. For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects,

**Commented [SM18]:** CRZ, an objective and easily plotted area, should also be included.

**Commented [SM19]:** FHNA regards the notion of a "phased" tree retention plan as extremely problematic. Does this proposed provision mean that IDPs will not be utilized, or if they will be utilized that they can be ignored in at least a significant fraction of cases? FHNA is a strong advocate for a meaningful IDP process on all development projects throughout the City.



unavoidable isolation (windfirmness), or unsuitability of species, etc., and for which no reasonable alternative action is possible must be given (pruning, cabling, etc.);

- v. Describe the impact of necessary tree removal to the remaining trees, including those in a Group of Trees or on adjacent properties;
  - vi. For development applications, a discussion of timing and installation of tree protection measures that must include fencing and be in accordance with the tree protection standards as outlined in KZC XX; and
  - vii. The suggested location and species of supplemental trees to be used when required. The report shall include planting and maintenance specifications pursuant to KZC 95.XX and 95.XX.
5. Lot Clustering to Retain Tier 1 or Tier 2 Trees. With short plats and subdivisions, the Director may approve variations to minimum Lot Size, maximum Floor Area Ratio, and Lot Coverage requirements to facilitate retention of Tier 1 and Tier 2 trees in protective tracts or where lot sizes are averaged in order to retain trees. If approved, the following standards shall apply:
- a. Lot sizes may be averaged with no minimum lot size specified, provided there is no increase in the allowed density or number of lots otherwise allowed for the subject property;
  - b. The maximum Floor Area Ratio and/or Lot Coverage requirements may be adjusted proportionate to the Lot Size reduction(s), provided there is no net increase in the aggregate Floor Area ratio and/or aggregate Lot Coverage otherwise allowed for the subject property. The variations and resultant restrictions shall be included in a recorded agreement and binding on future owners of the lots.
  - c) Tier 1 and Tier 2 Tree Retention Priorities. The City may authorize the removal of Tier 1 and Tier 2 trees required for retention if:
    - i. After utilizing the required site plan alterations and allowed variations to development standards listed in KZC and 95.30.5, encroachment into the CRZ would result in either of the following:
      - 1. Tree(s) that are unsuitable for retention per the condition ratings in KZC 95.XX.X
      - 2. The retention of a Tier 2 tree compromises a Tier 1 tree's suitability for retention.
6. Retention and Supplemental Planting for Tier 1 Trees. Tier 1 trees consist of Landmark trees and Groups of Trees. Tier 1 trees shall be retained, unless otherwise provided in KZC 95.22 (4)(c)(g).
- a. Landmark Trees: Are recognized as having exceptional value adding to the character of the community because of their age, size, and condition. Before being designated a Landmark tree, the tree must meet all the following criteria:
    - i. The tree is a single trunk 30-inches dbh or larger;
    - ii. The tree is in good-excellent health and structure with a likelihood of surviving more than 10 years; and
    - iii. The tree is not a hazard or nuisance tree as defined by KZC XX.XX.
  - b. Group of Trees: three (3) or more significant trees with overlapping or touching crowns, one of which is a Landmark, or a group of five (5) or more significant trees, one of which is a minimum single trunk 24-inch DBH.

**Commented [SM20]:** As an editorial matter, it would be simple to rely on the definition of a Landmark tree

**Commented [SM21]:** Ditto with respect to Group of Trees definition (FHNA does not have a view as to whether the operative term should be "group" or "grove"?)



- c. If a tree is designated a Tier 1 tree it shall be retained, provided that such retention cannot:
    - i. Reduce maximum allowed density or number of lots; or
    - ii. Reduce maximum allowed Floor Area Ratio (FAR) or Lot Coverage; or
    - iii. Reduce building pads to no less than 40' wide at any point of the building design, or
    - iv. Interfere with access and utility connections.
  - d. To retain Tier 1 trees, an applicant shall submit a development proposal that avoids Tier 1 trees. Tier 1 trees shall be retained through primary building including flip or mirroring of the primary building and driveway, and relocation of decks, patios, and walkways.
  - e. To treat projects, properties, and applicants fairly and equitably, to reduce City staff and applicant time and resources, and to help provide community clarity over potential Tier 1 tree retention, a Tier 1 Tree Mitigation and Site Design Conference (Conference) shall be scheduled between the applicant, the applicant and City's arborists, and the Planning Official after survey and arborist reviews are complete, and as early as possible under preliminary review.
  - f. The Conference purpose is to approve a site design with Tier 1 retention measures that prioritize avoidance of Tier 1 trees. All parties involved with the Conference shall complete Tier 1 retention measures within twenty-one (21) business days. Once agreement on Tier 1 measures is obtained, it shall be posted on an online project site and maintained by the City's Planning Official.
  - g. If agreement cannot be reached within twenty-one (21) business days that balances the site's primary building footprint with retention of Tier 1 tree(s), then:
    - i. The primary building footprint is maintained;
    - ii. The applicant shall plant first on-site, if possible, outside the building footprint and pursuant to the on-site planting requirements of this section, or off-site, pursuant to the off-site planting requirements of this section, and at the discretion of the Director, at a rate of three new trees for every removed Tier 1 tree (3:1);
    - iii. Supplemental planting, location prioritization, and maintenance standards of this chapter shall apply to Tier 1 trees;
    - iv. It is the intent of the City that Tier 1 trees be replaced with high quality trees that shall have the best chance of long-term health and condition when located in the right place; and
    - v. Applicant's shall pay \$2200 into the City's Tree Forestry Account for every Tier 1 tree removed.
7. Retention and Supplemental Planting Requirements of Tier 2 Significant Trees.
- a. Tree Density Per Acre. A minimum tree density per acre shall be required to retain or plant following development activities. Unless otherwise exempted, the requirement to meet a minimum tree density applies to all development activities in various zones, including new single-family homes; residential subdivisions and short subdivisions; mixed-use developments; commercial and industrial developments; municipal and institutional developments; and utility developments.
    - i. Tree retention or a combination of retention and supplemental planting shall be required to meet minimum tree density per acre for development in each land use zone, as adopted in the City of Kirkland's updated Comprehensive Plan.

**Commented [SM22]:** FHNA supports the formulation proposed by staff, which was discussed previously with the Working Group, viz. a guaranteed 40'x40' pad with the possibility of a larger pad so long as tree retention efforts might require that the extended be narrowed (provided that the 40'x40' portion of the pad would not be affected by any such narrowing).

**Commented [SM23]:** This language will need to be tightened significantly. Driveway and utility connections should be subject to redesign if needed to save a Tier 1 tree.

**Commented [SM24]:** FHNA is unclear as to what "primary building" means. FHNA notes that the staff's proposed amendments for Tier 1 tree retention are more specific than these. It's not clear whether this sentence is intended to limit the general rule, stated above, that Tier 1 trees "shall be retained" subject to items i through iv above.

**Commented [SM25]:** The public must have a meaningful period to comment on the tree retention plan and to appeal approval of the plan to a hearing examiner before construction is approved. FHNA supports the recommendation that retention measures be posted online for the purposes of both facilitating such comment and enhancing neighbors' understanding.

**Commented [SM26]:** FHNA does not regard this "negative option" favoring a builder to be an acceptable outcome. It seems to put all of the leverage in the hands of the builder, who can simply refuse to agree with the City during the 21 business day conference period.

**Commented [SM27]:** The ordinance language regarding Tier 2 tree retention should make very clear that Tier 2 trees will be retained up to a specified tree credit density (which rationally relates to a meaningful tree canopy percentage e.g. 30%), subject to the builders' protections enumerated in



- ii. Density for retained trees is calculated to determine if supplemental trees are required to be planted to meet the minimum tree density for the entire site.
  - iii. If the tree density per acre are met through retention of significant trees, then the planting of supplemental trees is not required, and the applicant has fully fulfilled the City's requirements of Tier 2 tree density credits. No further trees need to be retained on the lot. The City shall not require any additional tree retention or planting measures once the minimum per acre tree densities are met.
  - iv. Location prioritization for both retained and planted trees is **established**.
  - v. The City shall not require tree retention or planting efforts that would:
    - 1) Reduce maximum allowed density or number of lots; or
    - 2) Reduce maximum allowed Floor Area Ratio (FAR) or Lot Coverage; or
    - 3) Reduce a 50-foot wide by 50-foot deep building footprint; or
    - 4) For front building facades wider than 50 feet, the maximum building footprint shall not be reduced less 10 percent of the distance between side required yards. For example: a 70-foot wide lot with a 60-foot wide front building façade and two 5-foot side required yards results in a 10 percent, or 6-foot reduction to the building pad, which totals a 54' maximum building envelope; or
    - 5) Interfere with access and utility **connections**; or
    - 6) Exceed specified credit requirements.
      - In exceptional cases, the Director may allow for removal of existing trees beyond the retention standards if the applicant demonstrates the proposed activity is the only reasonable **alternative** that will accomplish the applicant's objectives.
      - Incentives are provided for retention beyond minimum tree densities, and outside of location prioritization areas, as defined in section 95.XX.XX
- b. **Tree Density Requirement.** The required minimum tree density varies by land use zoning designation and are calculated as a fraction of required per minimum per 1000 square feet of site area. The minimum tree density credits per acre are provided in Table 95.X.XX.XX.
- i. Tree density may consist of retained trees, supplemental trees, or a combination of both.
  - ii. Retained trees transplanted to an area on-site may count toward required density if approved by the Planning Official based on specifications provided by the applicant's qualified professional arborist that will ensure a good probability for survival. Trees transplanted off-site do not count toward the required density.
  - iii. Tree density credit requirements shall be based on the full site area, excluding retained trees in wetlands, streams, landslide hazard areas, and/or associated critical areas buffers.
  - iv. If a development site falls below the minimum density with retained trees, supplemental tree planting is required to meet tree unit credit minimum per acre density requirements.
  - v. The applicant has met the requirements of Tier 2 once the minimum per acre tree densities are obtained through retention, planting, or a combination of retention and planting. The City shall not require any additional tree retention or planting

**Commented [SM28]:** Not clear to FHNA what this means.

**Commented [SM29]:** See comment above in regard to Tier 1 tree retention.

**Commented [SM30]:** FHNA is concerned that this "relief valve" will become the exception that swallows the rule. What does it mean? The standard is much less demanding than one that grants exceptions from rules that deny "all reasonable economic use" (which is the language used for exceptions relating to development restrictions in environmentally sensitive areas.) the proposed language would appear to undermine predictability, at the very least.

measures once the minimum per acre tree densities are met.

- vi. Where supplemental trees are required to be planted, a minimum size requirement is established to meet the required tree density.
- vii. The DBH of the tree shall be measured in inches. The tree credit value that corresponds with DBH values is found in Table XX.XX.XX.
- viii. If the site allows, tree density on a lot shall not be achieved through the retention or replanting of only one large tree that achieves all tree unit credits.
- ix. Retained cottonwood and alder trees shall not count toward the tree density requirement.

Table XX.XX.XX  
TREE DENSITY CREDITS BY ZONE

LAND USE TYPE	USE INTENSITY	REQUIRED MIN TREE CREDITS PER 1000 SQ. FT. (as a proportionate share per sq. ft.)
Single-Family Residential* *If lots smaller than 7,200 sf and/or the proposal is a short subdivision in the DC or CR zone the required credit may be reduced in half	Low/Moderate	.40
Multifamily	Moderate	.40
Industrial Commercial Mixed-Use	High	.35
Public Facilities* *Including schools, public hospitals, municipal buildings, institutional	High	.35
Public Parks and Open Space	Low/Moderate	.75

**Commented [SM32]:** FHNA has stated that tree credit density requirements MUST have some rational relationship to the City's tree canopy goal. It now appears to FHNA that a tree credit density requirement of 44 credits/acre will not come close to achieving a 40% canopy on a given project. If the retention and planting requirement for single family home projects fall well short of producing a 40% canopy over time, it is extremely difficult to envision how Kirkland can meet its stated canopy objective.

**Commented [SM31]:** FHNA does not understand the references to DC and CR zones, but would like to know more given that tree credit requirements would be halved in these zones.



LAND USE TYPE	USE INTENSITY	REQUIRED MIN TREE CREDITS PER 1000 SQ. FT. (as a proportionate share per sq. ft.)
Downtown Commercial	High	.20

- c. **Tree Density Calculation.** For the purpose of calculating required minimum tree density, public right-of-way, areas to be dedicated as public right-of-way, and vehicular access easements are not included as lot area within an improved plat shall be excluded from the area used for calculation of tree density. Critical areas and associated buffers to be maintained by the development shall be excluded from the area used for calculation of tree density, but supplemental plantings may occur in those areas.
- d. **Tree Density Calculation for Retained Trees.**
- Diameter at breast height (DBH) of the tree shall be measured in inches.
  - The tree unit credit value that corresponds with DBH values shall be found in Table 95.XX.XX. These credits shall be multiplied by one and one-half for existing native conifers (or other conifer species as approved by the Planning Official).
  - Retained alder and cottonwood trees shall not count toward the tree density requirement. No credits shall be given or count towards minimum tree unit credits for retention of arborvitae.
  - Existing trees located in critical areas and those protected within the native growth protection area tract or easement to be established by the proposal shall not count toward the tree density requirement.
  - In calculating tree density credits, tree credits shall be rounded up to the next whole number from a one-half or greater value.
- e. **Supplemental Trees Planted to Meet Minimum Density Requirement.**
- For sites where existing (predevelopment) tree density is insufficient to meet tree density minimums, retention of existing identified trees consistent with KZC 95.XX.XX shall be required and a top priority of the site design. Additional tree density credits shall be achieved through supplemental planting on site.
  - The Director may allow for removal of trees beyond these retention standards only when the applicant demonstrates that the proposed activity requiring additional removal of existing trees is the only reasonable alternative that will accomplish the applicant's objectives, and only when supplemental trees are provided to meet tree density credit requirements. In such instances, the city may require additional on-site supplemental tree planting and/or a fee in lieu of additional supplemental tree planting to achieve higher tree density credit than the minimum required by Table 95.XX.XX.
- f. **Minimum Size and Tree Density Value for Supplemental Trees.** The required minimum size of a supplemental tree worth one credit for six (6) feet tall for native or other conifers and

**Commented [SM33]:** See comment above regarding "only reasonable alternative".

two-inch caliper for deciduous or broad-leaf evergreen trees. The installation and maintenance shall be pursuant to 95.XX.XX, Landscaping Regulations.

Table XX.XXX.XX

Tree Density Credits for Retained or Supplemental Planted Trees

DBH	Tree Credits
Planted 6' Conifer, or 2" cal. Deciduous	1
Planted 8' Conifer, or 3" cal. Deciduous	2
4" – < 8"	1
8" – < 12"	2
12" – < 18"	3
18" – < 22"	5
22" – < 26"	7
26" – >	9
Conifer over deciduous	1.5 x Tree Credit Above
Landmark Tree (30" and above)	1.5 x Tree Credit above

**Commented [SM34]:** These credits have been adjusted from what appears in the current code and in the staff's proposed amendments. FHNA has not had sufficient time to analyze the impact of the adjustments.

**Commented [SM35]:** FHNA prefers that the code require a certain percentage of new plantings to consist of native conifers, rather than award bonuses for such plantings.

**Commented [SM36]:** FHNA does not support (at least without further consideration) a 50% bonus for the retention of a Landmark tree. The bonus would, in effect, convert the credits given to such a tree (9 credit in the table above) to 15 credits.

Example: An 8,000-square-foot lot would need 8 tree credits ( $8,000/1000 = 8$ ). The tree density on the lot could be retained by one 12-inch to 18-inch tree and a 18-inch to 22-inch or one 8-inch, one 10-inch, one 18-inch, and three 4-inch existing trees, or by a combination of retention and supplemental planting.

Example: A two-acre industrial site would need 44 tree credits ( $87,120 \text{ square feet}/1,000 = 87.12 \times .5 = 43.56$  or 44). The tree density on the lot could be retained by a combination of three 24-inch trees to equal 21 credits, plus five 12-inch to 24-inch trees equal 20 for a total of 44.

**95.28 Supplemental Tree Planting Requirements Related to Development Activity.**

1. The minimum size for supplemental trees shall be six (6) feet for conifer, two-inch caliper for deciduous.
2. In some circumstances the Director may consider smaller-sized supplemental trees if the applicant can demonstrate they are more suited to the site conditions, to the species, and will be planted in quantities to meet the intent of this section.
3. The planting of native and/or species diverse trees is encouraged to help ensure the health, longevity, and age diversity of Kirkland's tree canopy.
4. A ten (10%) reduction in required tree planting densities shall be given to the applicant for the planting of all native trees or combination of all native or drought tolerant trees from a City approved list of drought tolerant trees.



5. No credits shall be given or count towards minimum tree unit credits for supplemental planting of arborvitae.

#### 95.30 Tree Location Prioritization.

It is the preference of the City to retain and plant trees on-site, with the right tree in the right place. Right tree, right place minimizes negative impacts to the environment, building footprint, use and enjoyment of private property, maintenance and intended function of buildings, and gives retained and planted trees the best chance to establish and thrive as a healthy part of a diverse canopy.

1. The City shall approve design and landscape plans that retain and/or plant trees in the following on-site locations (in order of priority):
  - a. Required site perimeter or rear or front yard setbacks;
  - b. Adjacent to critical areas, associated buffers, and near trees or corridors that provide habitat value;
  - c. Significant trees that form a continuous, healthy canopy;
  - d. Significant trees on slopes greater than 20%;
  - e. Locations that do not interfere with the use and enjoyment of private property, or the maintenance and intended function of buildings on the development site (exceptions are made for Landmark trees and Groupings pursuant to KZC XX.XX.XX)
  - f. Provide a screening function, enhance privacy between existing and new neighborhoods, help add to or preserve community character, provide relief from blight or harsh light, or screen uses with adjacent zoning;
  - g. Adjacent to stormwater facilities as approved by public works;
  - h. Within required common open spaces and recreation spaces as established by the approved site plans; and
  - i. Incorporated into the development site's approved landscape plans.

**Commented [SM37]:** FHNA regards general policy statements in the body of a prescriptive ordinance as irrelevant and potentially confusing. The notion of "right tree, right place" is logical, but it has no precise meaning. It does not enhance predictability.

#### 95.32 Incentive Measures.

It is the intent of the City to retain trees on site while allowing for flexible site and building design, providing visual buffers, and improving environmental and esthetic quality. Bonuses may be earned by the applicant by providing site development and building standards or retention or planting measures that better the requirements of this section or incorporate standards and methods found in other chapters of KZC and KMC.

1. Incentive measures may include but are not limited to:
  - a. Retention or replanting of additional significant trees that enhance slope stability and reduce potential for soil erosion;
  - b. Planting of native understory landscaping within the canopy area of each significant tree that must include shrubs that will mature to a full range of understory plant heights, that would be supported by the development site's soil and tree canopy, as determined by the qualified City and applicant arborists;
  - c. Sustainable site development strategies and qualifying sustainability certifications such as:
    - i. Low Impact Development (LID) standards within the Public Works Pre-Approved Plans and Policies and King County Stormwater Manual;
    - ii. International Living Futures Institute (ILFI) Living Building Challenge;

**Commented [SM38]:** Unclear what this means.

**Commented [SM39]:** Does this language enhance predictability?

- iii. Leadership in Energy and Environmental Design (LEED);
- iv. Built Green Net Zero;
- v. Salmon Safe, ILFI Net Zero or Passive House programs that will be equal or superior to the provisions of KZC 95; or
- vi. The installation of renewable energy system hardware such as solar panels or wind turbines.
- d. Site design such as lot clustering that allows for the retention of, but not limited to, habitat corridors, heavily wooded sites, additional buffers between critical areas, wetlands or streams, and visual buffers between new and existing neighborhoods.
- e. Significant tree(s) retained on the interior of the lot that provides energy savings through winter wind protection or summer shading;
- f. Retention of an additional twenty (20%) of significant trees on the interior of the lot above the minimum tree density requirements of section 95.XX.

2. Bonuses provided by the City to the applicant for incentive measures may include but are not limited to:

- a. Tree density credits up to a maximum of eight (8) credits for incentive measure provided;
- b. Expedited permit review;
- c. Reduction of permit fees;
- d. Additional FAR or Lot Coverage, or density bonus;
- e. A reduction in on-site or off-site parking requirements;
- f. Setback adjustments; or
- g. Other bonuses at the discretion of the Director.

**Commented [SM40]:** Per acre or per lot?

**Commented [SM41]:** For each incentive measure provided or up to 8 credits/acre (or lot?) for all such measures?

#### 95.34 Tree and Soil Protection During Development Activity

Prior to development activity or initiating tree removal on the site, vegetated areas, individual trees and soil to be preserved shall be protected from potentially damaging activities during development activity as follows:

1. All minimum required tree protection measures shall be shown on the tree retention plan and the site grading plan. Project site plans shall include a summary of the project-specific tree protection measures;
2. Tree Protection Fence. Before development, land clearing, filling or any land alteration, the applicant shall:
  - a. Erect and maintain readily visible temporary protective tree fencing at the approved Limits of Disturbance which surrounds the protected area of all retained trees, groups of trees, vegetation and native soil. Fences shall be constructed of chain link and be at least six (6) feet high, unless other type of fencing is authorized by the Planning Official.
  - b. Install highly visible tree protection area signs spaced no further than 25 feet along the entirety of the Tree Protection Fence. Said sign must be approved by the Planning Official and shall state at a minimum "Tree and Soil Protection Area, Entrance Prohibited" and provide the City phone number for code enforcement to report violations.
  - c. Install Site plans showing approved tree retention/protection on development sites in plain view with the general contractor or other responsible party's phone number.
  - d. Prohibit excavation or compaction of soil or other potentially damaging activities within the fence; provided, that the Planning Official may allow such activities approved by a qualified

**Commented [SM42]:** The movability of fences is a very sensitive issue. This language does not address the matter adequately. (But see next page.)



professional and under the supervision of a qualified professional retained and paid for by the applicant.

3. Prohibit placing materials near trees. No person may conduct any activity within the protected area of any tree designated to remain, including, but not limited to, operating or parking equipment, placing solvents, storing building material or stockpiling any materials, or dumping concrete washout or other chemicals. During construction, no person shall attach any object to any tree designated for protection.
  - a. If any disturbance is proposed within the Inner Critical Root Zone of significant trees on a neighboring property, the applicant shall provide evidence that the owner of said tree(s) has been notified in writing of the potential impact. The Planning Official may waive this requirement if the applicant's arborist can demonstrate, through non-injurious methods such as pneumatic root excavations, that there are no roots within the Inner Critical Root Zone.
  - b. Maintain the Tree Protection Fence in its approved location for the duration of the project until the Planning Official authorizes its removal.
  - c. Ensure that any approved landscaping done in the protected zone subsequent to the removal of the barriers shall be accomplished with machinery from outside the protected zone or by hand.
  - d. In addition to the above, the Planning Official may require the following:
    - i. If equipment is authorized to operate within the Critical Root Zone, the soil and critical root zone of a tree must be covered with mulch to a depth of at least six (6) inches or with plywood, steel plates or similar material in order to protect roots and soil from damage caused by heavy equipment.
    - ii. Minimize root damage by hand-excavating a 2-foot-deep trench, at edge of Critical Root Zone, to cleanly sever the roots of trees to be retained. Never rip or shred roots with heavy equipment.
    - iii. Corrective pruning performed on protected trees in order to avoid damage from machinery or building activity.
    - iv. Maintenance of trees throughout construction period by watering and fertilizing.
4. Grade.
  - a. The grade shall not be elevated or reduced within the Critical Root Zone of trees to be preserved without the Planning Official's authorization based on recommendations from a qualified professional. The Planning Official may allow coverage of up to one-half (1/2) of the area of the tree's Critical Root Zone with light soils (no clay) to the minimum depth necessary to carry out grading or landscaping plans, if it will not imperil the survival of the tree. Aeration devices may be required to ensure the tree's survival.
  - b. If the grade adjacent to a preserved tree is raised such that it could slough or erode into the tree's Critical Root Zone, it shall be permanently stabilized to prevent soil erosion and suffocation of the roots.
  - c. The applicant shall not install an impervious surface within the Critical Root Zone of any tree to be retained without the authorization of the Planning Official. The Planning Official may require specific construction methods and/or use of aeration devices to ensure the tree's survival and to minimize the potential for root-induced damage to the impervious surface.
  - d. To the greatest extent practical, utility trenches shall be located outside of the critical root zone of trees to be retained. If tree roots must be disturbed within the critical root zone, a qualified professional report recommending the best construction method will be required.
  - e. Trees to be retained shall be protected from erosion and sedimentation. Clearing operations shall be conducted to expose the smallest practical area of soil to erosion for

**Commented [SM43]:** This is helpful, but only if it is interpreted strictly. Given past practice, FHNA advocates much stronger and more specific language, viz. fences may not be moved except to the extent and under the circumstances stated explicitly in the tree plan. Any exceptions to such commitments should be approved by the planning official and noted online.

the least possible time. To control erosion, it is encouraged that shrubs, ground cover and stumps be maintained on the individual lots, where feasible.

5. Directional Felling. Directional felling of trees shall be used to avoid damage to trees designated for retention.

#### **95.36 Off-Site Tree Planting or Fee In-Lieu.**

1. When an applicant can demonstrate through a qualified arborist analysis that the base tree densities required under KZC XX.XX.XX for on-site tree retention and planting cannot be reasonably achieved, and no other on-site planting options are available, the Director may approve off-site planting or fee in-lieu paid directly into the City's Tree Forestry Account.
  - a. Allowable sites for off-site plantings may include, but are not limited to, sites within City limits:
    - i. City-owned properties;
    - ii. Private open space such as critical areas or Native Growth Protected Areas (NGPA), parks, or street rights-of-way;
    - iii. Private property with written consent and agreement of the owner;
    - iv. Residential neighborhoods that have, as identified by the Kirkland Urban Tree Canopy Assessment (2018), the lowest Urban Tree Canopy and greatest need for increased tree canopy based on Census tract data;
    - v. Institutional (hospitals, mental health facilities), municipal (including K-12 educational facilities), government, or non-profit properties with written consent and agreement of the parties; or
    - vi. Other properties as determined by the Director.
  - b. Cost of tree planting shall be at the expense of the applicant. The amount of the fee for planting shall cover the cost of the tree(s) at current market value, installation (labor, transportation, equipment, staking, mulching), maintenance for five years (watering, warranty, and monitoring), and fund administration.
  - c. Fees for installation and maintenance shall be determined by the average of three (3) bids obtained by the City and agreed upon by the City and applicant.
  - d. Fees shall be paid to the City at the time of:
    - i. Recording for single detached homes in a subdivision or short subdivision and townhome developments; or
    - ii. Prior to issuance of building permits for all other development.

#### **95.38 Enforcement and Penalties**

Upon determination there has been a violation of any provision of this chapter, the City may pursue code enforcement and penalties in accordance with the provisions of Chapter 1.12.100 KMC, Special Provisions Relating to Enforcement of Tree regulations in Chapter 95 KZC. Tree topping shall result in the following penalties:

1. Required Trees. Trees that were required to be planted or retained by this chapter that are less than six (6) inches DBH that have been topped must be replaced pursuant to the standards in Chapter 1.12 KMC.
2. Restoration. For topped trees greater than six (6) inches DBH, property owners must have a qualified professional develop and implement a restoration pruning plan.



3. Fines. If restoration of a topped tree is impossible, the City shall impose a monetary fine of \$250 (?) per tree payable directly into the City Forestry Account.

#### **95.40 City Forestry Account**

1. Funding Sources. All civil penalties received under this chapter and all money received pursuant to KZC 95.XX shall be used for the purposes set forth in this section. In addition, the following sources may be used for the purposes set forth in this section:
  - a. Agreed upon restoration payments imposed under KZC 95.XX or settlements in lieu of penalties;
  - b. Agreed upon payment in lieu of planting required trees under KZC 95.XX;
  - c. Sale of trees or wood from City property where the proceeds from such sale have not been dedicated to another purpose;
  - d. Donations and grants for tree purposes;
  - e. Sale of seedlings by the City; and
  - f. Other monies allocated by the City Council.
2. Funding Purposes. The City shall use money received pursuant to this section for the following purposes:
  - a. Acquiring, maintaining, and preserving treed areas within the City;
  - b. Planting and maintaining trees within the City;
  - c. Establishment of a holding public tree nursery;
  - d. Urban forestry education, public outreach and communication that includes establishment of an Environmental Justice Fund to broaden community engagement and input;
  - e. Implementation of a tree canopy monitoring program, including data collection and establishment of measures;
  - f. Assist to fully staff, fund, and implement an Urban Forestry Management Department within the City of Kirkland which shall include a Public Tree Retention, Replacement, and Monitoring Program pursuant to the Urban Forestry Strategic Management Plan and the Urban Tree Canopy Assessment; and
  - g. Other purposes relating to trees as determined by the City Council.





## Deborah Powers

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**From:** Scott Morris <Scott.Morris@trilogy-international.com>  
**Sent:** Monday, November 25, 2019 2:19 PM  
**To:** Rick Whitney; John Kappler; Bill Goggins; Betsy Pringle; Ruth Wright; Neal Black; Brian Gawthrop  
**Cc:** Adam Weinstein; Jeremy McMahan; Deborah Powers; Gina Clark; board; Ken Goodwin; rick doylesmith.com; Mike Smith (Mike@MeritHomesInc.com); LaWana Quayle; Larry Toedtli; City Council; Planning Commissioners; George Finkenstaedt  
**Subject:** RE: Proposed amendments to the Kirkland tree code, ZC Chapter 95  
**Attachments:** Ltr to HCC re tree code amendments (November 22, 2019).pdf; 11-21-19 KZC 95 MBAKS Amendments (FHNA comments November 25).docx

Dear Chairman Whitney, Vice Chairman Kappler and members of the Houghton Community Council:

The Finn Hill Neighborhood Alliance (FHNA) attaches comments on the draft tree code ordinance language that the Master Builders Association of King and Snohomish Counties (MBAKS) submitted to you on Friday afternoon. These comments are based on a relatively quick review of the draft language and are being forwarded without our having had the benefit of consulting with MBAKS. However, our comments are consistent with the points we made in our own letter to the Community Council (also attached in pdf format) and address our principal concerns relating to the City's tree code.

In general, FHNA continues to support making refinements to the staff's proposed ordinance amendments as opposed to starting with new draft language. We believe that the staff's draft provisions relating to Tier 1 tree retention and IDP processes are closer to our positions than what appears in the MBAKS draft. We are willing, however, to work with interested parties – MBAKS, City staff, City elected and appointed officials, and other Kirkland residents – to resolve outstanding differences relating to the retention of Tier 2 trees and, in particular, to provide builders more predictable and timely tree plan reviews.

For our own part, we continue to believe that the definition of Landmark trees should be broadened somewhat (26" trunk diameter vs. 30" diameter) and that the tree credit density requirement for supplemental planting should equate to a 40% canopy cover as measured over a reasonable time period (e.g. 20 years). It appears that the City has yet to articulate how tree credits equate to long-term canopy results. This disconnect between credits and canopy coverage must be resolved as part of the tree ordinance review; without such a resolution, it will be impossible to foresee whether the tree code revisions will advance (or impair) Kirkland's achievement and maintenance of its 40% canopy cover objective.

Respectfully submitted,

**Scott Morris**  
**Finn Hill Neighborhood Alliance - President**  
[www.finnhillalliance.org](http://www.finnhillalliance.org) | 206-972-9493  
PO Box 682, Kirkland WA 98083



 [www.facebook.com/finnhillalliance](https://www.facebook.com/finnhillalliance) 

**From:** Scott Morris

**Sent:** Friday, November 22, 2019 4:23 PM

**To:** 'rwhitney@kirklandwa.gov' <[rwhitney@kirklandwa.gov](mailto:rwhitney@kirklandwa.gov)>; 'John Kappler' <[JKappler@kirklandwa.gov](mailto:JKappler@kirklandwa.gov)>; 'bgoggins@kirklandwa.gov' <[bgoggins@kirklandwa.gov](mailto:bgoggins@kirklandwa.gov)>; 'bpringle@kirklandwa.gov' <[bpringle@kirklandwa.gov](mailto:bpringle@kirklandwa.gov)>; 'rwright@kirklandwa.gov' <[rwright@kirklandwa.gov](mailto:rwright@kirklandwa.gov)>; 'nblack@kirklandwa.gov' <[nblack@kirklandwa.gov](mailto:nblack@kirklandwa.gov)>; 'bgawthrop@kirklandwa.gov' <[bgawthrop@kirklandwa.gov](mailto:bgawthrop@kirklandwa.gov)>

**Cc:** Adam Weinstein <[AWeinstein@kirklandwa.gov](mailto:AWeinstein@kirklandwa.gov)>; Jeremy McMahan <[JMcMahan@kirklandwa.gov](mailto:JMcMahan@kirklandwa.gov)>; Deborah Powers <[DPowers@kirklandwa.gov](mailto:DPowers@kirklandwa.gov)>; Gina Clark <[GClark@mbaks.com](mailto:GClark@mbaks.com)>; board <[board@finnhillalliance.org](mailto:board@finnhillalliance.org)>; Ken Goodwin <[goodwin.hp@gmail.com](mailto:goodwin.hp@gmail.com)>; 'rick doylesmith.com' <[rick@doylesmith.com](mailto:rick@doylesmith.com)>; Mike Smith ([Mike@MeritHomesInc.com](mailto:Mike@MeritHomesInc.com)) <[Mike@MeritHomesInc.com](mailto:Mike@MeritHomesInc.com)>; LaWana Quayle <[LQuayle@drhorton.com](mailto:LQuayle@drhorton.com)>; Larry Toedtli <[larry.toedtli@comcast.net](mailto:larry.toedtli@comcast.net)>; 'City Council' <[citycouncil@kirklandwa.gov](mailto:citycouncil@kirklandwa.gov)>; 'planningcommissioners@kirklandwa.gov' <[planningcommissioners@kirklandwa.gov](mailto:planningcommissioners@kirklandwa.gov)>; George Finkenstaedt <[gfinkenstaedt@gmail.com](mailto:gfinkenstaedt@gmail.com)>

**Subject:** Proposed amendments to the Kirkland tree code, ZC Chapter 95

Dear Chairman Whitney, Vice Chairman Kappler and members of the Houghton Community Council,

Attached are comments of the Finn Hill Neighborhood Alliance (FHNA) concerning proposed amendments to the Kirkland tree ordinance, which you will consider at your meeting on the 25<sup>th</sup>.

Best regards,

**Scott Morris**

**Finn Hill Neighborhood Alliance - President**

[www.finnhillalliance.org](http://www.finnhillalliance.org) | 206-972-9493

PO Box 682, Kirkland WA 98083



[www.facebook.com/finnhillalliance](https://www.facebook.com/finnhillalliance)



## Deborah Powers

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**From:** Gina Clark <gclark@mbaks.com>  
**Sent:** Friday, November 22, 2019 3:02 PM  
**To:** Kelli Curtis; Penny Sweet; Amy Bolen; Jay Arnold; Rick Whitney; John Kappler; John Tymczyszyn; Carter Bagg  
**Cc:** Adam Weinstein; Deborah Powers; Mike Smith; Scott Morris; Ken Goodwin; larry.toedtli@comcast.net; Todd Levitt; Aaron Hollingbery; Joe Herr  
**Subject:** RE: Materials for HCC November 25 Meeting

Thank you for the fantastic question, Councilmember Curtis. MBAKS draft code amendments are re-written. The various strikeout underlines to the current staff draft are extensive, and while I tried to mark up and amend that document, I made it too confusing. So I started marking up the original code but that felt like I was not giving staff, or the working group and others who've weighed in on the updated code, the due credit they deserve for the changes and work that has gone into that document.

So after a week of trying different ways to mesh staff's draft, strikeout underlines, etc., I just started over, taking a clean version (accepting all changes) of the staff's draft. I then took code language or ideas from 14 other codes in our region and pulled things together, similar to what staff did their version, just taking a different path.

There are several sections that are relatively the same as staff's: 95.22, 95.24, 95.34 and 95.38.

Sections 95.05, 95.26, 95.28, 95.30, 95.32 are heavily amended or completely new.

All sections pertaining to landscape design and tree/shrub/vegetation maintenance have been removed. I suggest those be replaced in a code section to immediately follow this one. Since this code section is so complex and delicate for all involved, I was trying to keep it less verbose and lengthy.

What I can do is go through and note which sections are new, modified or relatively unchanged. I wanted to provide a draft that was easier to read, provided flow, and was simpler. All the mark ups and redlines was not lending to that.

I only ask that I do that over the weekend or first thing Monday morning. I am fighting bronchitis and sinusitis and my son is super sick. We're trying to mend after a very long two weeks!

Please don't hesitate to ask any additional questions.

Take care,  
Gina

**From:** Kelli Curtis <KCurtis@kirklandwa.gov>  
**Sent:** Friday, November 22, 2019 2:32 PM  
**To:** Gina Clark <gclark@mbaks.com>  
**Subject:** Re: Materials for HCC November 25 Meeting

Hi Gina,  
Is your amended draft ordinance redlined or rewritten? I just glanced at this, but I can't see the changes.  
Thank you!  
Kelli

On Nov 22, 2019, at 2:26 PM, Gina Clark <gclark@mbaks.com> wrote:

<MBAKS KZC 95 Draft Amendments 11-22-19 for circulation.pdf>

Kelli Curtis | Council Member | City of Kirkland

[kcurtis@kirklandwa.gov](mailto:kcurtis@kirklandwa.gov) | (425) 587 3532 | (206) 499 0635

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## Deborah Powers

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**From:** Junyan Lin <junyan\_lin@hotmail.com>  
**Sent:** Monday, November 18, 2019 5:53 PM  
**To:** Deborah Powers  
**Subject:** Preserve mature trees

**Categories:** High Category

Hello,

My name is Junyan Lin, a Kirkland resident. I'm writing to express my concern regarding preserving the mature trees around Kirkland. I noticed there are several larger scale development projects going on around Kirkland and none of them cares to preserve the mature trees on their site. Those trees are irreplaceable, no matter how many new (young) trees the developers plant, since they've been here for probably hundreds of years. One of the example is DRV18-00312 (8505 132nd Avenue NE) near my house. The developer just simply decided to remove a few dozens of beautiful, healthy and very old trees without any hesitation. My understanding is Kirkland is actively working on protecting our urban forest. I'm wondering whether there is any effort to review the tree plan of these large development projects or any guideline to encourage them to design their site in a way to protect the trees.

Thank you,  
Junyan Lin



November 22, 2019

Chairman Rick Whitney and Houghton Community Council members  
Houghton Community Council  
Kirkland City Hall  
123 Fifth Avenue  
Kirkland WA 98033

Amendments to Kirkland Tree Ordinance, Zoning Code Chapter 95

Dear Chairman Whitney and Houghton Community Council members,

The Finn Hill Neighborhood Alliance is writing to provide brief comments on proposed revisions to Kirkland's tree ordinance, Zoning Code Chapter 95.

As you know, the tree ordinance review has been underway for more than a year and has consumed considerable time and attention from City staff, City residents, and homebuilders. Consensus has been achieved on some issues but not on all – particularly in regard to the retention of non-Landmark trees during home construction and in regard to the planting of new trees in conjunction with property development.

Earlier this afternoon, the Master Builders Association submitted its own draft ordinance to address these issues. FHNA will review the proposed language this weekend and provide comments promptly.

Subject to that review, we are responding to the staff's suggested code amendments, focusing on two objectives:

- The code should maximize retention of exceptional mature trees
- The code should enhance Kirkland's ability to achieve and maintain a healthy tree canopy of 40% coverage citywide

Three aspects of the code are critical to these objectives:

Landmark/Tier 1 trees: The staff, the builders, and FHNA all agree that "exceptional" trees require rigorous protection during property development. The language in the staff draft regarding Tier 1 trees (Landmark trees and groves) was agreeable to all parties, subject -- in the case of the builders -- to the understanding that predictable and less rigorous retention standards would apply to other significant or regulated trees (Tier 2 trees).

Short of establishing an outright ban on the removal of exceptional trees, it will be difficult to retain exceptional trees simply because they have large root zones that are likely to be compromised given that lots are small and home and driveway footprints cover 50% of the lot



area. However, there is universal agreement that even marginal improvement in retaining exceptional mature trees is worth the special effort.

So far as FHNA is concerned, the only open question regarding Tier 1 trees is the definition of a Landmark tree. During their initial meetings, FHNA and the builders spoke in terms of trees with a trunk diameter of 30" or more; this definition was adopted for the sake of convenience late last year and without access to data on the prevalence of trees in Kirkland according to trunk size. Several months ago, the City staff provided data about the size of existing Kirkland trees based on its survey of single family residential building permits issue between 2008 and 2013. The data show that only 11% of trees existing on lots undergoing development had trunk diameters of 30" or more; an additional 10% of trees on those lots had diameters between 24" and 30".

- *Recommendation:* Based on the data presented by staff, FHNA recommends that the definition of a Landmark tree be expanded to include trees in good to excellent condition with trunk diameters of 26" or more. This revision would afford the highest degree of protection to approximately 18% of Kirkland's existing trees – a meaningful fraction but not so large as to impair development.

Tier 2 tree retention: Specifying standards for the retention of Tier 2 – trees with trunk diameters of 6" or more but not qualifying as Tier 1 trees – has been the most contentious issue in the tree code revision process. FHNA and the builders agreed late last year on some rough retention standards for these trees based on the principle that retention measures would apply only to the extent required to achieve a meaningful degree of canopy preservation. FHNA and the builders spoke in terms of a 45-50 credits/acre standard for canopy preservation. FHNA estimated that this level of tree credit retention would equate to something like 25-30% canopy retention.

Unfortunately, it now appears that 45-50 tree credits/acre, when applied to existing trees, equates to a very low canopy retention percentage. Our guess, based on a recent review of tree diameter to tree crown data supplied by an arborist, is that 45-50 credits/acre equate to only 15-20% canopy coverage. However, no one has been yet developed well-reasoned estimates.

City staff have advocated a different approach to retaining Tier 2 trees. The staff's focus is on retaining Tier 2 trees (regardless of tree credits) in setbacks, subject to a guarantee for builders that their building footprints can be at least 90% of the width of the property between setbacks or 50' x 50', whichever is greater. Builders have objected to this tree retention regime, asserting that it leaves too much discretion to staff on how building layouts have to be adjusted, thereby creating unpredictability, adding to review time, and increasing financial risk.

- *Recommendation:* FHNA suggests two alternatives for resolving the current impasse. One would focus on setting a sensible ceiling for tree retention efforts that would require builders to undertake specific retention steps with the goal of retaining a reasonable tree canopy – FHNA recommends 30% -- and letting builders remove excess



trees if they wish. The tree canopy goal can be expressed in credits per acre provided that staff can provide some rational basis for equating credits to canopy percentages.

The second alternative would entail City staff and the builders working together to make the staff's preferred Tier 2 tree retention approach more predictable and reasonably expeditious. FHNA suggests that staff and the builders focus on the provisions set forth in the Section 95.30.4(b)(2) of the staff draft. Builders objected to this language when it was drafted by the staff. Paradoxically, no one has spoken about attempting to the revise it.

The City might also consider tracking the time it takes to process development applications and benchmarking the results against the results realized in neighboring jurisdictions. Perhaps the City and builders can agree on a processing timetable goal and periodically assess whether it is being achieved and, if it is not, convene a workshop to identify process improvements that will help both builders and City staff expedite reviews in the future.

Supplemental tree planting: The third critical issue affecting the tree code revision concerns the number of supplemental trees that should be planted during development to advance the City's objective of achieving and maintaining a 40% tree canopy. The current standard of 30 credits per acre is woefully deficient in this regard. Staff has estimated that if trees are planted on bare ground at a density of 30 credits per acre, they would generate a canopy of only 20% in twenty years. Clearly, the supplemental planting threshold must be raised significantly if the tree code is to play any role in helping the City achieve its 40% tree canopy objective.

- *Recommendation:* FHNA suggests that the planting threshold be raised to at least 70 credits per acre, although it suspects that an even higher threshold will be required to generate a 40% canopy in a reasonable period of time. Again, City staff should be asked to specify a tree credit density standard that it can demonstrate will provide a 40% canopy cover in a given time period.

FHNA is mindful of several objections to raising the supplemental tree planting requirement beyond 30 credits per acre. It has been argued that small lots cannot support extensive tree plantings. It has been argued that property owners should not be deprived of sunny yards or views. And it has been argued that the City's goal of fostering a healthy tree canopy should not be achieved "on the backs" of single family residential neighborhoods. FHNA believes that if a lot is too small to support supplemental tree planting to the extent of 70 credits per acre (or whatever credit level equates to a 40% canopy cover over time), the City arborist should be empowered to allow supplemental trees that cannot be accommodated on the lot to be planted elsewhere in the City, perhaps in parks or in rights of way. To the extent that residents want more light and less canopy, they have the right to remove trees without a permit. And in regard to the assertion that single family neighborhoods shouldn't bear the primary burden of helping the City achieve its canopy goals, FHNA notes that most of the City consists of land



zoned for single family homes, and that, next to parks, single family lots are the most amenable to support a robust tree canopy. If standards for tree planning in single family neighborhoods are not adequate to achieve a 40% canopy, how can Kirkland honestly say that it is committed to achieving its canopy goal?

There are numerous aspects of the tree code that can be improved. FHNA believes, however, that progress on the code has been stalled due to a failure to find solutions on the three issues outlined above. Candid discussion is urgently required to address these questions.

Respectfully submitted,

FINN HILL NEIGHBORHOOD ALLIANCE

A handwritten signature in blue ink, appearing to read "Scott Morris".

Scott Morris, President

Cc: Adam Weinstein  
Jeremy McMahan  
Deborah Powers  
Gina Clark  
City Council  
Planning Commission  
FHNA Board of Directors

## KIRKLAND ZONING CODE CHAPTER 95 – TREE RETENTION AND SUPPLEMENTAL REPLANTING

### Sections:

- 95.05 Purpose and Intent
- 95.10 Definitions
- 95.22 Tree Removal Permit Exemptions
- 95.24 Public Tree Removal and Pruning
- 95.26 Tree Retention Associated with Development Activity
- 95.28 Supplemental Tree Planting Requirements Related to Development Activity
- 95.30 Tree Location Prioritization
- 95.32 Retention Incentives
- 95.34 Tree and Soil Protection During Development Activity
- 95.36 Off-Site Tree Planting or Fee In-Lieu
- 95.38 Enforcement and Penalties
- 95.50 City Forestry Account

### 95.05 Purpose and Intent.

The purpose of this chapter is to establish process and standards for the preservation of trees, to retain or plant viable trees in the right location on development sites, and to maintain a sustainable urban canopy in the City of Kirkland. Specifically, it is the intent of this chapter to:

- Promote the public health, safety, and welfare of the citizens of Kirkland without preventing the reasonable development of land;
- Ensure equitable access to trees and the benefits they provide to all the citizens of Kirkland;
- Implement the goals and objectives of the City's Comprehensive Plan, the City's Urban Forest Strategic Management Plan, the City's Urban Tree Canopy Assessment, and the State Environmental Policy Act (SEPA);
- Promote flexible site planning and building practices that maintain the City's natural topography, soils, and vegetation features;
- Provide an appropriate amount and quality of tree retention related to future land uses;
- Improve the aesthetic quality of the built environment by reducing impacts on wetlands, streams and the natural environment
- Minimize surface and ground water runoff, soil erosion, land instability, sedimentation, siltation, and pollution of waterways;
- Provide for increased permeable surfaces that allow for infiltration of surface water into ground water resources, reduction in the quantity of storm water discharge, and improve the quality of storm water discharge;
- Improve noise and air pollution, mitigate urban heat islands, and decrease the overall impacts of climate change;
- Provide visual relief, screening buffers, and insulating protection from severe weather conditions;
- Providing habitat, cover, food supply and corridors for a diversity of fish and wildlife, and

**Commented [SM1]:** FHNA has no reviewed this section closely but notes that it should make explicit reference to the Code's role in supporting achievement and adherence to the City's 40% canopy goal.

**Commented [GC2R1]:** Why would you pigeonhole the city to 40%? According to the study Deb cites, and relies on for this goal from American Forests, that says 40%-60% is recommended canopy goal for city's in heavily forested states. In 2017 American Forests made this ONE of many recommendations for city's along with other goals to consider like environmental equity, land uses, zoning, demographics, etc., when determining the intent of a city's tree protection goals and ordinances. The 40% canopy thought alone is too narrow and myopic.



recreational uses for citizens;

- Provide for regulations that are clear, understandable, user friendly, easy to administer, and cost effective to enforce.

#### 95.10 Definitions.

The following definitions shall apply throughout this chapter unless the context clearly indicates otherwise. Definitions that apply throughout this code are also located in Chapter 5 KZC.

1. Caliper – Caliper of the trunk shall be the trunk diameter measured six (6) inches above the ground for up to and including 4-inch caliper size and 12-inches above the ground for larger sizes.
2. Critical Root Zone (CRZ) – The area surrounding a tree at a distance from the trunk, which is equal to one (1) foot for every inch of trunk diameter measured at 4.5 feet from grade or otherwise determined by a qualified professional. Example: a 24-inch DBH tree has a 24-foot radius CRZ encircling the trunk.
3. Crown – The area of a tree containing leaf- or needle-bearing branches.
4. Diameter at Breast Height (DBH) – The diameter or thickness of a tree trunk measured at 4.5 feet above average grade. Trees whose stems diverge below ground level are considered separate trees. A tree that has one stem at ground level but that splits into two or more stems above ground level use the following method to determine DBH. Where a tree splits into several trunks below typical DBH, the DBH for the tree is the square root of the sum of the DBH for each individual stem squared (example with three stems:  $DBH = \text{square root of } [(stem\ 1)^2 + (stem\ 2)^2 + (stem\ 3)^2]$ ).
5. Dripline – The distance from the tree trunk that is equal to the furthest extent of the tree's crown.
6. Group of Trees – A group of three (3) or more significant trees with overlapping or touching crowns, one of which is a minimum 30-inch DBH, or a group of five (5) or more significant trees, one of which is a minimum 24-inch DBH. A Group of Trees is considered a Tier 1 tree.
7. Hazard Tree – A tree assessed by a qualified arborist as having an Imminent or High-risk rating using the ISA Tree Risk Assessment Qualification (TRAQ) method in its most current form, as applied in KZC 95.XX.XX.
8. Heavily Wooded Site: A subject property that has a number of trees with crowns that cover at least 40 percent of the property
9. Hedge – Five (5) or more trees of the same species planted in linear formation, typically to function as a screen or barrier. Hedges are not Tier 1 trees or Groups of Trees.
10. Inner Critical Root Zone – An area half the distance of the Critical Root Zone. Example: a 24-inch DBH tree has a 12-foot radius Inner Critical Root Zone encircling the trunk.
11. ISA – International Society of Arboriculture
12. Impact – A condition or activity that affects any part of a tree including the trunk, branches, and Critical Root Zone.
13. Landmark Tree – A significant tree with a minimum single trunk 30-inch DBH in excellent-good condition per KZC 95 XX.XX, ~~likely to survive at least additional years~~, and does not qualify for removal as a hazard, nuisance, or emergency according to this chapter.
14. Limits of Disturbance - The boundary between the area of minimum protection around a tree and the allowable site disturbance as determined by a qualified professional.
15. Minimum Tree Density – The minimum number of trees per acre a development site must achieve through tree retention or supplemental planting measured in tree unit credits.
16. Nuisance Tree - A tree that meets any of the following criteria:
  - a. Is causing obvious physical damage to private or public structures, including but not limited

**Commented [SM3]:** FHNA has commented that the Landmark definition should encompass trees whose trunk diameters are 26" or greater.

**Commented [GC4R3]:** The city admits it does not have solid, reliable data to support these numbers. See report from Nov 5 HCC report. The original working group agreement was 30-inch. If the city wants to include a wider variety of trees as landmarks, then it should consider doing so on a species basis like the city of North Bend does. Based on the types of trees the city really wants to protect and preserve, their height, type, etc. Please reference NBC 19.10.020(f) Homestead Tree definition

**Commented [SM5]:** Presumably unnecessary if the tree is in good – to-excellent condition.

**Commented [SM6]:** FHNA has misgivings about reliance on LoDs that are defined by "qualified professionals". We believe that the standard should either objectively stated (i.e. area necessary to preserve health/viability of tree) or defined as an area to be determined by the City arborist in his/her reasonable judgment.

**Commented [GC7R6]:** The building industry cannot rely on the "reasonable judgment" of the city arborist. We can rely on standard, accepted language found in many other tree protection ordinances throughout the region that is written here. The city stated in a previous report that PC and staff had looked at incorporated code language from other jurisdictions. This is exactly as written from other jurisdictions and it works without harm.



- to: sidewalk, curb, road, driveway, parking lot, building foundation, utilities or roof; or
- b. Has sustained irreversible damage from past maintenance practices; or
  - c. Causes increased maintenance or potential safety hazard such as from thorns, roots or fruit.
17. Planning Official – Designee of the City of Kirkland's Planning and Building Director.
  18. Public Works Official – Designee of the City of Kirkland's Public Works Director.
  19. Qualified Professional – An individual with relevant education and training in arboriculture or urban forestry, having two (2) or more of the following credentials:
    - a. International Society of Arboriculture (ISA) Certified Arborist;
    - b. Tree Risk Assessor Qualification (TRAQ) as established by the ISA (or equivalent);
    - c. American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
    - d. Society of American Foresters (SAF) Certified Forester for Forest Management Plans; or
    - e. Board Certified Master Arborist as established by the ISA.
  20. Significant Tree – A tree that is at least six (6) inches in diameter at breast height (DBH) as measured at 4.5 feet from the ground.
  21. Street Tree – A tree located within the public right-of-way; provided, that if the trunk of the tree straddles the boundary line of the public right-of-way and the abutting property, it shall be considered to be on the abutting property and subject to the provisions of this chapter.
  22. Tier 1 – Level of tree retention and supplemental planting standards applied to Landmark trees and a Group of Trees associated with development.
  23. Tier 2 – Level of retention and supplemental planting standards applied to significant trees associated with development.
  24. Tree Topping – The severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree as to remove the normal canopy and disfigure the tree.
  25. Tree Removal – The removal of a tree, through either direct or indirect actions, including but not limited to: (1) clearing, damaging, girdling or poisoning resulting in an unhealthy or dead tree; (2) removal of more than 25% of the live crown; or (3) damage to roots or trunk that is likely to destroy the tree's structural integrity.
  26. Tree Unit Credit – The measurement for assessing existing trees, retention thereof, and planting of new trees.
  27. Public Tree – A tree located in parks, along public rights-of-way, on City property.
  28. Windfirm – A condition of a tree in which it withstands average peak local wind speeds and gusts.

**Commented [SM8]:** FHNA notes but cannot comment on the fact that the staff's proposed definition of topping is different. Perhaps the distinction is resolved by the reference in the "tree removal" definition to the topping of 25% of the tree crown

**Commented [GC9R8]:** MBACKS is willing to revert to staff's definition.

#### **95.20 Tree Removal Permit Exemptions.**

The following are exempt from the provisions of this chapter:

1. Emergency Tree Removal. Any tree that poses an imminent threat to life or property may be removed. The City must be notified within seven (7) days of the emergency tree removal with evidence of the imminent threat. If the Planning Official determines the emergency was not warranted, the removal will be subject to code enforcement including fines and restoration pursuant to section 95.XX.XX.
2. Utility Maintenance. If pruning cannot first solve an interruption of service, trees may be removed by the City or utility provider. Utility maintenance shall conform to a City-approved Utility Vegetation Management Plan.



3. Commercial Nurseries or Tree Farms. A nursery or tree farm owner may remove trees that are being grown to be sold as Christmas or landscape trees.

#### 95.22 Public Tree Removal and Pruning.

The purpose of this section is to establish process and standards for tree removal and pruning on public property.

1. Public Tree Removal. Other than City crews, no person, directly or indirectly, shall remove any tree on any City property, or any tree in the public right-of-way, without first obtaining a tree removal permit unless the tree is determined to be a hazard or nuisance.
2. Public Tree Pruning. Any public tree pruning shall conform to the most recent version of the American National Standards Institute (ANSI) A300 - Part 1 pruning standards or as outlined in an approved Utility Vegetation Management Plan.
  - a. Parks, Unmaintained City Right of Way, Stormwater and Other City Facilities. Other than City crews, no person, directly or indirectly, shall prune, trim, modify, alter or damage any tree in a public park or on any other City property without first obtaining a Public Tree Pruning permit as provided in this chapter.
  - b. Street Trees. It is the responsibility of the adjacent property owner to maintain street trees abutting their property, which may include minor pruning. The City reserves the right to have City or utility crews perform routine pruning and maintenance of street trees.

**Commented [SM10]:** FHNA strongly advocates the addition of a sentence that obligates the City to take all reasonable steps, during plan review of a project and during public works maintenance or construction, to retain healthy significant trees and to promptly plant replacement trees.

#### 95.24 Private Property Tree Removal and Pruning with No Development Activity.

The purpose of this section is to establish process and standards for private property tree removal and pruning with no development activity.

1. Tree Pruning on Private Property. Any private property owner may prune trees on their property without a permit, except authorization from the City is required for work in critical areas or buffers.
2. Tree Removal Exceptions. Property owners may remove a maximum number of significant trees in one twelve-month period based on lot size, with the following exceptions:
  - a. Property owners may not remove trees ~~are not protected~~ under a Voluntary Tree Conservation Easement;
  - b. Trees that are within the '5-Year Maintenance Covenant' period following development activity may not be cut;
  - c. There is ~~no an~~ application for development on the site;
  - d. Per Table 95.XX.XX, a private property owner may borrow against the maximum number of trees that may be removed in one twelve-month period with notice provided to the Planning Official. No permit is required. The owner may borrow up to two (2) years of future removal allowances. The property owner may not remove additional trees until the future years have expired.
3. Removal of Significant Trees with Permit Required. The maximum number of significant trees allowed to be removed in one twelve (12) month period is based on lot size. Table 95.XX.XX provides the maximum number of trees that may be removed. If removal exceeds these numbers, a permit is required.

**Commented [SM11]:** Typo here?

**Commented [GC12R11]:** Indeed it is. Thank you for catching that!

**Commented [SM13]:** Exceptions should be noted for critical areas, wetland buffers, and Holmes Point Overlay properties

**Commented [GC14R13]:** MBACKS can agree to this.

**Commented [SM15]:** Another typo?

**Commented [SM16]:** FHNA is not opposed to this suggestion. However, if the suggestion is adopted, the number of trees to be removed each year should be lowered, even for larger lots. Otherwise, the owner of a ¼ acre lot would be allowed to remove 12 significant trees in a single year or 24 trees over a 4 year period, without having to plant any replacement trees so long as a minimum number trees are left on the lot.

Table 95.XX.X

REMOVAL OF TREES ON PRIVATE PROPERTY

LOT SIZE	MAXIMUM NUMBER OF SIGNIFICANT TREES ALLOWED TO BE REMOVED EVERY 12 MONTHS
Lots up to 10,000 sq. ft.	2
Lots 10,000 to 20,000 sq. ft.	4
Lots 20,000 sq. ft. or greater	6
Lots over 35,000 square feet with a Forest Management Plan	>6
Landowner may borrow against two (2) future years' removal allowance	

**Commented [SM17]:** See preceding comment. These allowances for larger lots should be lowered if owners are permitted to borrow against allowances for future years.

**Commented [GC18R17]:** That seems reasonable and appropriate.

**Commented [SM19]:** If allowances are made for the removal of more trees on larger lots the minimum number of trees to be retained by homeowners on such lots should be raised as well.

4. Significant Tree Removal Permit. Private property owners requesting to remove trees exceeding the maximum number allowed per twelve months based on lot size, shall submit a completed permit application to the City Department of Planning and Building. The permit application shall include:
  - a. A site plan showing the approximate location of significant trees, size (DBH) and species, along with the location of structures, driveways, access ways and easements;
  - b. For required replacement trees, a planting plan showing location, size and species of the new trees in accordance to standards set forth in KZC 95.XX.XX, Supplemental Tree Planting Requirements.
5. Tree Removal Permit Application Review and Appeals.
  - a. For requests exceeding Table 95.XX.X, the City shall review the application within 21 calendar days and either approve, approve with conditions or modifications, deny, or request additional information. Any decision to deny shall be in writing along with the reasons for the denial and the appeal process.
  - b. The decision of the Planning Official is appealable using the applicable appeal provisions of KZC 145.
  - c. Tree removal shall be completed within one (1) year from the date of permit approval.
6. Removal of Hazard or Nuisance Trees. Any private property owner seeking to remove any number of significant trees which are a hazard or nuisance in excess of their standard allowance from private property or the public right-of-way shall first obtain approval of a tree removal permit and meet the requirements of this subsection.
  - a. Tree Risk Assessment. If the nuisance or hazard condition is not obvious, a tree risk assessment prepared by a qualified professional explaining how the tree(s) meet the definition of a nuisance or hazard tree is required. Removal of nuisance or hazard trees does not count toward the tree removal limit if the nuisance or hazard is verified.
  - b. Trees in Critical Areas or Critical Areas Buffers. See Chapter 90 KZC.
  - c. The removal of any tree in the Holmes Point Overlay Zone requires the planting of a native tree of a minimum of six (6) feet in height in proximity to where the removed tree was

**Commented [SM20]:** The insertion of review deadlines begs the question of what will happen if the deadline is not met. Before deadlines are inserted into the code it would be prudent to ask how long it currently takes the City to process applications, how that timeframe compares to the review cycles of other cities, and what additional resources might be required to ensure that the City can meet specified deadlines.

**Commented [GC21R20]:** This is something we do need to address. Thank you for pointing out. And there are a few areas in the code that need this kind of look and consideration.

**Commented [GC22R20]:**



located. Selection of native species and timing of installation shall be approved by the Planning Official.

- d. **Removal of Unreasonable Obstruction.** The unreasonable obstruction of views, sunlight or solar access by planting, uncontrolled growth or maintenance of trees satisfying the minimum requirements for relief in KZC XX.XX.X constitutes a private nuisance subject to redress as provided in KZC XX.XX.X. If a person shall plant, maintain or permit to grow any tree which unreasonably obstructs the view from, sunlight from reaching, or access to solar power to the primary living or entertainment area of any other parcel of property within the City of Kirkland as set forth in KZC XX.XX.XX, then a complainant shall have rights set forth in this chapter. *(This will require writing and adoption of a new code section acknowledging the importance, and sometimes conflicts, that arise between trees, solar, light and views, and neighboring properties/individual properties. Please reference Medina Municipal Code, Chapter 18.16)*

- 7. **Forest Management Plan.** A private property owner seeking to remove trees on developed, heavily wooded sites of at least 35,000 square feet in size where tree removal exceeds the allowances of KZC 95.XX.XX and is not exempt under KZC 95.XX, Tree Removal Exemptions, may need to submit a Forest Management Plan.

- a. **Forest Management Plan Requirements.** A Forest Management Plan must be developed by a qualified professional and shall include the following:
  - i. A site plan depicting the location of all significant (a survey identifying tree locations is not required) with a numbering system of the trees (with corresponding tags on trees in the field). The site plan shall include size (DBH), species, and condition of each tree;
  - ii. Identification of trees to be removed, including reasons for their removal and a description of pursuant to subsection (11)(b) of this section;
  - iii. A reforestation plan that includes location, size, species, and timing of installation.
- b. **Forest Management Plan Standards.** The following Forest Plan Management standards shall apply:
  - i. Trees to remain should be dominant or co-dominant in the stand, healthy and windfirm.
  - ii. No removal of trees from critical areas and buffers, unless otherwise permitted.
  - iii. No removal of Landmark trees or dedicated Group of Trees, unless otherwise permitted.
  - iv. No removal of trees that would cause trees on adjacent properties to become hazardous.
  - v. The reforestation plan ensures perpetuity of the wooded areas. The size of planted trees for reforestation shall be a minimum of three (3) feet tall.
  - vi. Logging operations shall be conducted as to expose the smallest practical area of soil to erosion for the least possible time. To control erosion, native shrubs, ground cover and stumps shall be retained where feasible. Where not feasible, appropriate erosion control measures to be approved by the City shall be implemented.
  - vii. Removal of tree debris shall be done pursuant to Kirkland Fire Department standards.
  - viii. Recommended maintenance prescription for retained trees with a specific timeline.

**Commented [SM23]:** While FHNA would like to review the Medina code to see how a scheme to allow for the removal of "obstructing" trees would work, FHNA finds the concept that one property owner can force a neighbor to remove a tree in order to preserve or create an easement of light and air for the benefit of the complaining property owner to be highly problematic. Wouldn't the logical conclusion that one property owner can prohibit a neighbor from building a house that blocks that property owner's view or casts that property owner's "primary living or entertainment area"?

**Commented [GC24R23]:** This needs to also tie to nuisance code. This is not an "easy" simple ask of take down that tree. You're correct. Please refer to Medina code, their separate code section, and public nuisance code/law.

**Commented [SM25]:** FHNA supports the ability of the owner of a smaller lot to remove trees in excess of that owner's yearly allowance, subject to replanting requirements. This is admittedly a different concept than the City's current Forest Management Plan, which has been restated here.

- ix. The Planning Official may require performance security pursuant to KZC 175 in order to assure reforestation requirements of the approved forest management plan.

#### 95.26 Tree Retention Associated with Development Activity.

1. **Tree Retention Purpose.** The City and applicant shall work collaboratively to retain trees, comply with private property rights, and work towards a viable citywide canopy goal.
2. **Tree Retention Plan.** For all development, a Tree Retention Plan is required to be submitted with the initial land use application and/or clearing and grading permit application. The qualified professional arborist and surveyor shall work together to identify, tag, and survey all significant trees. The city shall work with the applicant in the early planning stages to assist as possible.
3. **Modifications to the Tree Retention Plan.** Modifications may be approved pursuant to the following criteria:
  - a) **Modification Prior to Development or Construction Activity -** The Director may approve a modification request to remove Tier 1 or Tier 2 trees previously identified for retention if:
    - i. Tier 1 or Tier 2 trees inventoried in the original Tree Retention Plan have not yet been removed;
    - ii. An updated arborist report and site development plan is submitted to the Director outlining the reasons retention onsite is untenable as proposed in the original plan.
    - iii. The updated arborist report provides alternatives for tree retention and/or planting of Tier 1 or Tier 2 previously identified for retention.
    - iv. The modified, alternative plan is approved by the City within twenty-one (21) business days and shall be approved by the Director.
    - v. The updated arborist report and alternative plan, once approved by the Director, shall be posted on the project website that is maintained by the Planning Official, and available to the public.
  - b) **Modification During Development or Construction –**
    - i. Significant trees may be identified for retention during plan development phases that present potential conflicts with utilities, driveways, home footprints, excavations, and other planned improvements.
    - ii. These trees, planned to retain in good faith, may be found during construction activities to present conflicts.
    - iii. If conflicts between construction and trees arise that present a potential challenge to retention, the City-designated and applicant arborists, as well as the City's site inspector, shall schedule a field meeting within seven (7) business days.
    - iv. The field meeting shall determine:
      - a. Agreed upon measures to retain the originally proposed tree(s) within the existing building footprints or site design.
      - b. Agreed upon measures to retain the originally proposed tree(s) outside of the existing building footprints or site design, requiring flexible site and building design adjustments that shall be approved by the City no more than fourteen (14) business days after site design or building plan modification review.
      - c. If agreement cannot be reached by the City and applicant within twenty-one (21) business days of notice of conflict, the tree(s) may be removed.

**Commented [SM26]:** As an editorial matter, FHNA sees little value in placing broad aspirational statements such as this in a prescriptive ordinance.

**Commented [GC27R26]:** Can be removed.

**Commented [SM28]:** See comments above regarding review deadlines that would be imposed on the City.

**Commented [GC29R28]:** We can work with city to discuss deadline and consequences if not approved

**Commented [SM30]:** What is the trigger? In other words, the meeting should be held with 7 business days after...a request for such a meeting

**Commented [GC31R30]:** Yes, request. And code language. Shall, I must happen.



- d. If tree(s) are removed, supplemental replanting standards of this chapter shall apply.
4. Tree Retention Plan Components. The tree retention plan shall contain the following, unless waived by the Planning Official:
  - a. A tree inventory and report containing the following:
    - i. A numbering system of all existing significant trees on the subject property (with corresponding tags on trees); the inventory must also include significant trees on adjacent property with driplines extending over the subject property line;
    - ii. Limits of disturbance (LOD) of all existing significant trees (including approximate LOD of off-site trees with overhanging driplines);
    - iii. Brief general health or condition rating of these trees (i.e.: poor, fair, good, excellent, etc.);
    - iv. Proposed tree status (retained or removed);
    - v. Tree type or species, DBH, assessment of health and structural viability, windfirmness following development, and tree unit credit pursuant to this chapter; and
  - a. A site plan depicting the following:
    - i. Location of all proposed improvements, including building footprint, access, utilities, applicable setbacks, buffers, and required landscaped areas clearly identified. If a short plat or subdivision is being proposed and the location of all proposed improvements cannot be established, a phased tree retention plan review is required as described in subsection (6)(a) of this section;
    - ii. Accurate location of significant trees on the subject property (surveyed locations may be required). The site plan must also include the approximate trunk location and critical root zone of significant trees that are on adjacent property with driplines extending over the subject property line;
    - iii. Trees labeled corresponding to the tree inventory numbering system;
    - iv. Location of tree protection measures;
    - v. Indicate LOD drawn to scale around all trees potentially impacted by site disturbances resulting from grading, demolition, or construction activities (including approximate LOD of off-site trees with overhanging driplines);
    - vi. Proposed tree status (trees to be removed or retained) noted by an 'X' or by ghosting out; and
    - vii. Proposed locations of any supplemental trees and any required trees to meet tree density or minimum tree unit credits as outlined in KZC 95.33.
  - c. An arborist report containing the following:
    - i. A complete description of each tree's health, condition, and viability;
    - ii. A description of the method(s) used to determine the limits of disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees);
    - iii. Any special instructions specifically outlining any work proposed within the limits of the disturbance protection area (i.e., hand-digging, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare);
    - iv. For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects,

**Commented [SM32]:** CRZ, an objective and easily plotted area, should also be included.

**Commented [GC33R32]:** It is not in current or staff proposed draft code with CRZ. Why both?

**Commented [SM34]:** FHNA regards the notion of a "phased" tree retention plan as extremely problematic. Does this proposed provision mean that IDPs will not be utilized, or if they will be utilized that they can be ignored in at least a significant fraction of cases?

**Commented [GC35R34]:** This is something I took from current code MBAKS is not opposed to IDP but needs more input from city leadership and actual language and protections from staff as to how this will work. We have not had give and take, iterations of code that addresses concerns on both sides. If IDP is to be adopted, can we please see clean code, written so everyone can 1) see it 2) understand it 3) apply it in a way that makes sense through a usable, concise, clean, code? Again, we are not wholly opposed but MBAKS needs some iteration process of IDP or phases and what that looks like to the city. If something new is going to be imposed on industry, let's see it and then massage the language with feedback from lawmakers so we can get the best for trees, community and industry.

unavoidable isolation (windfirmness), or unsuitability of species, etc., and for which no reasonable alternative action is possible must be given (pruning, cabling, etc.);

- v. Describe the impact of necessary tree removal to the remaining trees, including those in a Group of Trees or on adjacent properties;
- vi. For development applications, a discussion of timing and installation of tree protection measures that must include fencing and be in accordance with the tree protection standards as outlined in KZC XX; and
- vii. The suggested location and species of supplemental trees to be used when required. The report shall include planting and maintenance specifications pursuant to KZC 95.XX and 95.XX.

5. Lot Clustering to Retain Tier 1 or Tier 2 Trees. With short plats and subdivisions, the Director may approve variations to minimum Lot Size, maximum Floor Area Ratio, and Lot Coverage requirements to facilitate retention of Tier 1 and Tier 2 trees in protective tracts or where lot sizes are averaged in order to retain trees. If approved, the following standards shall apply:

- a. Lot sizes may be averaged with no minimum lot size specified, provided there is no increase in the allowed density or number of lots otherwise allowed for the subject property;
- b. The maximum Floor Area Ratio and/or Lot Coverage requirements may be adjusted proportionate to the Lot Size reduction(s), provided there is no net increase in the aggregate Floor Area ratio and/or aggregate Lot Coverage otherwise allowed for the subject property. The variations and resultant restrictions shall be included in a recorded agreement and binding on future owners of the lots.
- c) Tier 1 and Tier 2 Tree Retention Priorities. The City may authorize the removal of Tier 1 and Tier 2 trees required for retention if:
  - i. After utilizing the required site plan alterations and allowed variations to development standards listed in KZC and 95.30.5, encroachment into the CRZ would result in either of the following:
    - 1. Tree(s) that are unsuitable for retention per the condition ratings in KZC 95.XX.X
    - 2. The retention of a Tier 2 tree compromises a Tier 1 tree's suitability for retention.

6. Retention and Supplemental Planting for Tier 1 Trees. Tier 1 trees consist of Landmark trees and Groups of Trees. Tier 1 trees shall be retained, unless otherwise provided in KZC 95.22 (4)(c)(g).

- a. Landmark Trees: Are recognized as having exceptional value adding to the character of the community because of their age, size, and condition. Before being designated a Landmark tree, the tree must meet all the following criteria:
  - i. The tree is a single trunk 30-inches dbh or larger;
  - ii. The tree is in good-excellent health and structure with a likelihood of surviving more than 10 years; and
  - iii. The tree is not a hazard or nuisance tree as defined by KZC XX.XX.
- b. Group of Trees: three (3) or more significant trees with overlapping or touching crowns, one of which is a Landmark, or a group of five (5) or more significant trees, one of which is a minimum single trunk 24-inch DBH.

**Commented [SM36]:** As an editorial matter, it would be simpler to rely on the definition of a Landmark tree

**Commented [GC37R36]:** MBAKS is willing to include this into the definition of a Landmark tree but exclude the 10-year requirement. MBAKS believes if the city is going to reduce Landmark definition to 26-inch, the definition of Landmark, what we are saving, should be expanded so we know what the type of tree a Landmark is. Especially in the absence of solid data showing how many trees at what height or DBH should, could be saved and at what rate.

**Commented [SM38]:** Ditto with respect to Group of Trees definition (FHNA does not have a view as to whether the operative term should be "group" or "grove"?)



- c. If a tree is designated a Tier 1 tree it shall be retained, provided that such retention cannot:
- Reduce maximum allowed density or number of lots; or
  - Reduce maximum allowed Floor Area Ratio (FAR) or Lot Coverage; or
  - Reduce building pads to no less than 40' wide at any point of the building design, or
  - Interfere with access and utility connections.
- d. To retain Tier 1 trees, an applicant shall submit a development proposal that avoids Tier 1 trees. Tier 1 trees shall be retained through primary building including flip or mirroring of the primary building and driveway, and relocation of decks, patios, and walkways.
- e. To treat projects, properties, and applicants fairly and equitably, to reduce City staff and applicant time and resources, and to help provide community clarity over potential Tier 1 tree retention, a Tier 1 Tree Mitigation and Site Design Conference (Conference) shall be scheduled between the applicant, the applicant and City's arborists, and the Planning Official after survey and arborist reviews are complete, and as early as possible under preliminary review.
- f. The Conference purpose is to approve a site design with Tier 1 retention measures that prioritize avoidance of Tier 1 trees. All parties involved with the Conference shall complete Tier 1 retention measures within twenty-one (21) business days. Once agreement on Tier 1 measures is obtained, it shall be posted on an online project site and maintained by the City's Planning Official.
- g. If agreement cannot be reached within twenty-one (21) business days that balances the site's primary building footprint with retention of Tier 1 tree(s), then:
- The primary building footprint is maintained;
  - The applicant shall plant first on-site, if possible, outside the building footprint and pursuant to the on-site planting requirements of this section, or off-site, pursuant to the off-site planting requirements of this section, and at the discretion of the Director, at a rate of three new trees for every removed Tier 1 tree (3:1);
  - Supplemental planting, location prioritization, and maintenance standards of this chapter shall apply to Tier 1 trees;
  - It is the intent of the City that Tier 1 trees be replaced with high quality trees that shall have the best chance of long-term health and condition when located in the right place; and
  - Applicant's shall pay \$2200 into the City's Tree Forestry Account for every Tier 1 tree removed.
7. Retention and Supplemental Planting Requirements of Tier 2 Significant Trees.
- a. Tree Density Per Acre. A minimum tree density per acre shall be required to retain or plant following development activities. Unless otherwise exempted, the requirement to meet a minimum tree density applies to all development activities in various zones, including new single-family homes; residential subdivisions and short subdivisions; mixed-use developments; commercial and industrial developments; municipal and institutional developments; and utility developments.
- Tree retention or a combination of retention and supplemental planting shall be required to meet minimum tree density per acre for development in each land use zone, as adopted in the City of Kirkland's updated Comprehensive Plan.

**Commented [SM39]:** This is not consistent with what the Working Group agreed to, tentatively at least and would require further discussion.

**Commented [GC40R39]:** Thanks Scott. MBAKS hears your concerns and is willing to have additional discussions.

**Commented [SM41]:** This language will need to be tightened significantly. I

**Commented [GC42R41]:** Most of this is taken directly from staff language and the Tier 1 language they drafted. We tried to simplify and not make it overly complex. If you limit design, you also potentially limit the flexibility to move that building around the tree. When we met as a working group, we were trying to presser the tree while allowing the building to be built. T

**Commented [SM43]:** FHNA is unclear as to what "primary building" means. FHNA notes that the staff's proposed amendments for Tier 1 tree retention are more

**Commented [GC44R43]:** Primary building is the house itself (primary residence). It is being used to separate it from any ADU, workshop, etc, on the lot that ma

**Commented [SM45]:** The public must have a meaningful period to comment on the tree retention plan and to appeal approval of the plan to a hearing examiner. FHNA

**Commented [SM46]:** FHNA does not regard this "negative option" favoring a builder to be an acceptable outcome. It seems to put all of the leverage in the hands of

**Commented [GC47R46]:** While MBAKS hears the concerns of FHNA unless the requirements in staff's current Tier 2 draft proposal revert back to reflect original agreement

**Commented [SM48]:** The ordinance language regarding Tier 2 tree retention should make very clear that Tier 2 trees will be retained up to a specified tree cre



- ii. Density for retained trees is calculated to determine if supplemental trees are required to be planted to meet the minimum tree density for the entire site.
  - iii. If the tree density per acre are met through retention of significant trees, then the planting of supplemental trees is not required, and the applicant has fully fulfilled the City's requirements of Tier 2 tree density credits. No further trees need to be retained on the lot. The City shall not require any additional tree retention or planting measures once the minimum per acre tree densities are met.
  - iv. Location prioritization for both retained and planted trees is **established**.
  - v. The City shall not require tree retention or planting efforts that would:
    - 1) Reduce maximum allowed density or number of lots; or
    - 2) Reduce maximum allowed Floor Area Ratio (FAR) or Lot Coverage; or
    - 3) Reduce a 50-foot wide by 50-foot deep building footprint; or
    - 4) For front building facades wider than 50 feet, the maximum building footprint shall not be reduced less 10 percent of the distance between side required yards. For example: a 70-foot wide lot with a 60-foot wide front building façade and two 5-foot side required yards results in a 10 percent, or 6-foot reduction to the building pad, which totals a 54' maximum building envelope; or
    - 5) Interfere with access and utility **connections**; or
    - 6) Exceed specified credit requirements.
      - In exceptional cases, the Director may allow for removal of existing trees beyond the retention standards if the applicant demonstrates the proposed activity is the only reasonable **alternative** that will accomplish the applicant's objectives.
      - Incentives are provided for retention beyond minimum tree densities, and outside of location prioritization areas, as defined in section 95.XX.XX
- b. Tree Density Requirement. The required minimum tree density varies by land use zoning designation and are calculated as a fraction of required per minimum per 1000 square feet of site area. The minimum tree density credits per acre are provided in Table 95.X.XX.XX.
- i. Tree density may consist of retained trees, supplemental trees, or a combination of both.
  - ii. Retained trees transplanted to an area on-site may count toward required density if approved by the Planning Official based on specifications provided by the applicant's qualified professional arborist that will ensure a good probability for survival. Trees transplanted off-site do not count toward the required density.
  - iii. Tree density credit requirements shall be based on the full site area, excluding retained trees in wetlands, streams, landslide hazard areas, and/or associated critical areas buffers.
  - iv. If a development site falls below the minimum density with retained trees, supplemental tree planting is required to meet tree unit credit minimum per acre density requirements.
  - v. The applicant has met the requirements of Tier 2 once the minimum per acre tree densities are obtained through retention, planting, or a combination of retention and planting. The City shall not require any additional tree retention or planting

**Commented [SM49]:** Not clear to FHNA what this means.

**Commented [GC50R49]:** Please see the Tree Location Prioritization section below. That section number should be noted here. Thank you for pointing out need for clarification.

**Commented [SM51]:** See comment above in regard to Tier 1 tree retention.

**Commented [GC52R51]:** We can certainly address this. Minds greater than mine can help with the utility connection issue and concern in Public Works.

**Commented [SM53]:** FHNA is concerned that this "relief valve" will become the exception that swallows the rule. What does it mean? The standard is much less demanding than one that grants exceptions from rules that deny "all reasonable economic use" (which is the language used for exceptions relating to development restrictions in environmentally sensitive areas.) the proposed language would appear to undermine predictability, at the very least.

**Commented [GC54R53]:** This would only be in very rare, exceptional cases, likely one-offs, and only at the discretion of the Director. This is not meant as a lower "economic use" standard. MBAKS could put this up for discussion and hears the concern.



measures once the minimum per acre tree densities are met.

- vi. Where supplemental trees are required to be planted, a minimum size requirement is established to meet the required tree density.
- vii. The DBH of the tree shall be measured in inches. The tree credit value that corresponds with DBH values is found in Table XX.XX.XX.
- viii. If the site allows, tree density on a lot shall not be achieved through the retention or replanting of only one large tree that achieves all tree unit credits.
- ix. Retained cottonwood and alder trees shall not count toward the tree density requirement.

Table XX.XX.XX  
TREE DENSITY CREDITS BY ZONE

LAND USE TYPE	USE INTENSITY	REQUIRED MIN TREE CREDITS PER 1000 SQ. FT. (as a proportionate share per sq. ft.)
Single-Family Residential* *If lots smaller than 7,200 sf and/or the proposal is a short subdivision in the DC or CR zone the required credit may be reduced in half	Low/Moderate	.1
Multifamily	Moderate	.40
Industrial Commercial Mixed-Use	High	.35
Public Facilities* *Including schools, public hospitals, municipal buildings, institutional	High	.35
Public Parks and Open Space	Low/Moderate	.75

**Commented [SM57]:** FHNA has stated that tree credit density requirements MUST have some rational relationship to the City's tree canopy goal. It now appears to FHNA that a tree credit density requirement of 44 credits/acre will not come close to achieving a 40% canopy on a given project. If the tree retention and planting requirement for single family home projects fall well short of producing a 40% canopy over time, it is extremely difficult to envision how Kirkland can meet its stated canopy objective.

**Commented [GC58R57]:** I suggest we all take a step back and try to think outside the box. First it is extremely difficult to tie a credit system to a canopy goal. Please have professionals do it for us and do it well if they can. I would be exceedingly happy if they would. Second, this code format is taken from North Bend where trees and tree retention are paramount. Third this is an attempt to NOT talk about credits per acre (30, 45, 50 or 70) or count canopy, but to talk about retention as a measurement tree retention per square feet, proportioned based on land uses, to share the responsibility among ALL uses in the city, not just single family residential. AND to recognize that high density residential, missing middle housing, and other challenging, smaller lots are simply incapable of retaining 70 tree credit per acre in many cases as FHNA proposes. The city is proposing a "bold" new plan of densification and housing choice that will require thinking differently about tree retention too. This can offer that. And 40% is a number! It's not

**Commented [SM55]:** What does this mean?

**Commented [GC56R55]:** This is an attempt to acknowledge that some small or small and challenging lots may not be able with all other considerations be able to meet the one tree per 1000 sq feet per requirement and can receive a reduction. This is a reduction in that requirement.

LAND USE TYPE	USE INTENSITY	REQUIRED MIN TREE CREDITS PER 1000 SQ. FT. (as a proportionate share per sq. ft.)
Downtown Commercial	High	.20

- c. **Tree Density Calculation.** For the purpose of calculating required minimum tree density, public right-of-way, areas to be dedicated as public right-of-way, and vehicular access easements are not included as lot area within an improved plat shall be excluded from the area used for calculation of tree density. Critical areas and associated buffers to be maintained by the development shall be excluded from the area used for calculation of tree density, but supplemental plantings may occur in those areas.
- d. **Tree Density Calculation for Retained Trees.**
- Diameter at breast height (DBH) of the tree shall be measured in inches.
  - The tree unit credit value that corresponds with DBH values shall be found in Table 95.XX.XX. These credits shall be multiplied by one and one-half for existing native conifers (or other conifer species as approved by the Planning Official).
  - Retained alder and cottonwood trees shall not count toward the tree density requirement. No credits shall be given or count towards minimum tree unit credits for retention of arborvitae.
  - Existing trees located in critical areas and those protected within the native growth protection area tract or easement to be established by the proposal shall not count toward the tree density requirement.
  - In calculating tree density credits, tree credits shall be rounded up to the next whole number from a one-half or greater value.
- e. **Supplemental Trees Planted to Meet Minimum Density Requirement.**
- For sites where existing (predevelopment) tree density is insufficient to meet tree density minimums, retention of existing identified trees consistent with KZC 95.XX.XX shall be required and a top priority of the site design. Additional tree density credits shall be achieved through supplemental planting on site.
  - The Director may allow for removal of trees beyond these retention standards only when the applicant demonstrates that the proposed activity requiring additional removal of existing trees is the only reasonable alternative that will accomplish the applicant's objectives, and only when supplemental trees are provided to meet tree density credit requirements. In such instances, the city may require additional on-site supplemental tree planting and/or a fee in lieu of additional supplemental tree planting to achieve higher tree density credit than the minimum required by Table 95.XX.XX.
- f. **Minimum Size and Tree Density Value for Supplemental Trees.** The required minimum size of a supplemental tree worth one credit for six (6) feet tall for native or other conifers and

**Commented [SM59]:** See comment above.



two-inch caliper for deciduous or broad-leaf evergreen trees. The installation and maintenance shall be pursuant to 95.XX.XX, Landscaping Regulations.

Table XX.XXX.XX

Tree Density Credits for Retained or Supplemental Planted Trees

DBH	Tree Credits
Planted 6' Conifer, or 2" cal. Deciduous	1
Planted 8' Conifer, or 3" cal. Deciduous	2
4" – < 8"	1
8" – < 12"	2
12" – < 18"	3
18" – < 22"	5
22" – < 26"	7
26" – >	9
Conifer over deciduous	1.5 x Tree Credit Above
Landmark Tree (30" and above)	1.5 x Tree Credit above

Example: An 8,000-square-foot lot would need 8 tree credits ( $8,000/1000 = 8$ ). The tree density on the lot could be retained by one 12-inch to 18-inch tree and a 18-inch to 22-inch or one 8-inch, one 10-inch, one 18-inch, and three 4-inch existing trees, or by a combination of retention and supplemental planting.

Example: A two-acre industrial site would need 44 tree credits ( $87,120 \text{ square feet}/1,000 = 87.12 \times .5 = 43.56$  or 44). The tree density on the lot could be retained by a combination of three 24-inch trees to equal 21 credits, plus five 12-inch to 24-inch trees equal 20 for a total of 44.

#### 95.28 Supplemental Tree Planting Requirements Related to Development Activity.

1. The minimum size for supplemental trees shall be six (6) feet for conifer, two-inch caliper for deciduous.
2. In some circumstances the Director may consider smaller-sized supplemental trees if the applicant can demonstrate they are more suited to the site conditions, to the species, and will be planted in quantities to meet the intent of this section.
3. The planting of native and/or species diverse trees is encouraged to help ensure the health, longevity, and age diversity of Kirkland's tree canopy.
4. A ten (10%) reduction in required tree planting densities shall be given to the applicant for the planting of all native trees or combination of all native or drought tolerant trees from a City approved list of drought tolerant trees.

**Commented [SM60]:** These credits have been adjusted from what appears in the current code and in the staff's proposed amendments. FHNA has not had sufficient time to analyze the impact of the adjustments.

**Commented [GC61R60]:** And reflect lower caps.

**Commented [SM62]:** FHNA prefers that the code require a certain percentage of new plantings to consist of native conifers, rather than award bonuses for such plantings.

**Commented [GC63R62]:** Are the planting requirements at the top of the chart for 6' and 8' conifers and the credits sufficient? Deciduous too? Should we sus it out more?

**Commented [SM64]:** FHNA does not support(at least without further consideration) a 50% bonus for the retention of a Landmark tree. The bonus would, in effect, convert the credits given to such a tree (9 credit in the table above) to 15 credits.

**Commented [GC65R64]:** Noted. Happy to remove. Objective was to give the city and neighborhoods preservation of what we heard from the beginning...retention of large trees that hold a special place to neighborhoods. You can also see there's a provision that one tree alone cannot meet all the credits. However, MBACKS is fine removing this if there is not agreement We can be flexible on this.

5. No credits shall be given or count towards minimum tree unit credits for supplemental planting of arborvitae.

### 95.30 Tree Location Prioritization.

It is the preference of the City to retain and plant trees on-site, with the right tree in the right place. Right tree, right place minimizes negative impacts to the environment, building footprint, use and enjoyment of private property, maintenance and intended function of buildings, and gives retained and planted trees the best chance to establish and thrive as a healthy part of a diverse canopy.

1. The City shall approve design and landscape plans that retain and/or plant trees in the following on-site locations (in order of priority):
  - a. Required site perimeter or rear or front yard setbacks;
  - b. Adjacent to critical areas, associated buffers, and near trees or corridors that provide habitat value;
  - c. Significant trees that form a continuous, healthy canopy;
  - d. Significant trees on slopes greater than 20%;
  - e. Locations that do not interfere with the use and enjoyment of private property, or the maintenance and intended function of buildings on the development site (exceptions are made for Landmark trees and Groupings pursuant to KZC XX.XX.XX)
  - f. Provide a screening function, enhance privacy between existing and new neighborhoods, help add to or preserve community character, provide relief from blight or harsh light, or screen uses with adjacent zoning;
  - g. Adjacent to stormwater facilities as approved by public works;
  - h. Within required common open spaces and recreation spaces as established by the approved site plans; and
  - i. Incorporated into the development site's approved landscape plans.

**Commented [SM66]:** As noted at MBAKS's proposed Section 95.26 above, general policy statements in a prescriptive ordinance are not helpful. The notion of "right tree, right place" is logical, but it has no precise meaning. It does not enhance predictability.

### 95.32 Incentive Measures.

It is the intent of the City to retain trees on site while allowing for flexible site and building design, providing visual buffers, and improving environmental and esthetic quality. Bonuses may be earned by the applicant by providing site development and building standards or retention or planting measures that better the requirements of this section or incorporate standards and methods found in other chapters of KZC and KMC.

1. Incentive measures may include but are not limited to:
  - a. Retention or replanting of additional significant trees that enhance slope stability and reduce potential for soil erosion;
  - b. Planting of native understory landscaping within the canopy area of each significant tree that must include shrubs that will mature to a full range of understory plant heights, that would be supported by the development site's soil and tree canopy, as determined by the qualified City and applicant arborists;
  - c. Sustainable site development strategies and qualifying sustainability certifications such as:
    - i. Low Impact Development (LID) standards within the Public Works Pre-Approved Plans and Policies and King County Stormwater Manual;
    - ii. International Living Futures Institute (ILFI) Living Building Challenge;

**Commented [SM67]:** Unclear what this means.

**Commented [GC68R67]:** Thanks for the clarification Scott. Kirkland Municipal Code. It was not previously defined.

**Commented [SM69]:** Does this language enhance predictability?

**Commented [GC70R69]:** It does not, but these incentives are not prescriptive to begin with. They are optional and meant to be incentivized to do more through bonuses that are given by the city. The idea is to offer suggestions and then not close the door through such overbearing and hand-tying language to presume no other unique or qualifying incentives could possibly work for a particular site, project or attempt to save trees.



- iii. Leadership in Energy and Environmental Design (LEED);
- iv. Built Green Net Zero;
- v. Salmon Safe, ILFI Net Zero or Passive House programs that will be equal or superior to the provisions of KZC 95; or
- vi. The installation of renewable energy system hardware such as solar panels or wind turbines.
- d. Site design such as lot clustering that allows for the retention of, but not limited to, habitat corridors, heavily wooded sites, additional buffers between critical areas, wetlands or streams, and visual buffers between new and existing neighborhoods.
- e. Significant tree(s) retained on the interior of the lot that provides energy savings through winter wind protection or summer shading;
- f. Retention of an additional twenty (20%) of significant trees on the interior of the lot above the minimum tree density requirements of section 95.XX.

2. Bonuses provided by the City to the applicant for incentive measures may include but are not limited to:

- a. Tree density credits up to a maximum of eight (8) credits for incentive measure provided;
- b. Expedited permit review;
- c. Reduction of permit fees;
- d. Additional FAR or Lot Coverage, or density bonus;
- e. A reduction in on-site or off-site parking requirements;
- f. Setback adjustments; or
- g. Other bonuses at the discretion of the Director.

**Commented [SM71]:** Per acre or per lot?

**Commented [GC72R71]:** Per acre...entire project. This can be reduced, increased, discussed. All suggested.

**Commented [SM73]:** For each incentive measure provided or up to 8 credits/acre (or lot?) for all such measures?

**Commented [GC74R73]:** Can be for all measures.

#### 95.34 Tree and Soil Protection During Development Activity

Prior to development activity or initiating tree removal on the site, vegetated areas, individual trees and soil to be preserved shall be protected from potentially damaging activities during development activity as follows:

1. All minimum required tree protection measures shall be shown on the tree retention plan and the site grading plan. Project site plans shall include a summary of the project-specific tree protection measures;
2. Tree Protection Fence. Before development, land clearing, filling or any land alteration, the applicant shall:
  - a. Erect and maintain readily visible temporary protective tree fencing at the approved Limits of Disturbance which surrounds the protected area of all retained trees, groups of trees, vegetation and native soil. Fences shall be constructed of chain link and be at least six (6) feet high, unless other type of fencing is authorized by the Planning Official.
  - b. Install highly visible tree protection area signs spaced no further than 25 feet along the entirety of the Tree Protection Fence. Said sign must be approved by the Planning Official and shall state at a minimum "Tree and Soil Protection Area, Entrance Prohibited" and provide the City phone number for code enforcement to report violations.
  - c. Install Site plans showing approved tree retention/protection on development sites in plain view with the general contractor or other responsible party's phone number.
  - d. Prohibit excavation or compaction of soil or other potentially damaging activities within the fence; provided, that the Planning Official may allow such activities approved by a qualified

**Commented [SM75]:** The movability of fences is a very sensitive issue. This language does not address the matter adequately. (But see next page.)

professional and under the supervision of a qualified professional retained and paid for by the applicant.

3. Prohibit placing materials near trees. No person may conduct any activity within the protected area of any tree designated to remain, including, but not limited to, operating or parking equipment, placing solvents, storing building material or stockpiling any materials, or dumping concrete washout or other chemicals. During construction, no person shall attach any object to any tree designated for protection.

- a. If any disturbance is proposed within the Inner Critical Root Zone of significant trees on a neighboring property, the applicant shall provide evidence that the owner of said tree(s) has been notified in writing of the potential impact. The Planning Official may waive this requirement if the applicant's arborist can demonstrate, through non-injurious methods such as pneumatic root excavations, that there are no roots within the Inner Critical Root Zone.
- b. Maintain the Tree Protection Fence in its approved location for the duration of the project until the Planning Official authorizes its removal.
- c. Ensure that any approved landscaping done in the protected zone subsequent to the removal of the barriers shall be accomplished with machinery from outside the protected zone or by hand.
- d. In addition to the above, the Planning Official may require the following:
  - i. If equipment is authorized to operate within the Critical Root Zone, the soil and critical root zone of a tree must be covered with mulch to a depth of at least six (6) inches or with plywood, steel plates or similar material in order to protect roots and soil from damage caused by heavy equipment.
  - ii. Minimize root damage by hand-excavating a 2-foot-deep trench, at edge of Critical Root Zone, to cleanly sever the roots of trees to be retained. Never rip or shred roots with heavy equipment.
  - iii. Corrective pruning performed on protected trees in order to avoid damage from machinery or building activity.
  - iv. Maintenance of trees throughout construction period by watering and fertilizing.

4. Grade.

- a. The grade shall not be elevated or reduced within the Critical Root Zone of trees to be preserved without the Planning Official's authorization based on recommendations from a qualified professional. The Planning Official may allow coverage of up to one-half (1/2) of the area of the tree's Critical Root Zone with light soils (no clay) to the minimum depth necessary to carry out grading or landscaping plans, if it will not imperil the survival of the tree. Aeration devices may be required to ensure the tree's survival.
- b. If the grade adjacent to a preserved tree is raised such that it could slough or erode into the tree's Critical Root Zone, it shall be permanently stabilized to prevent soil erosion and suffocation of the roots.
- c. The applicant shall not install an impervious surface within the Critical Root Zone of any tree to be retained without the authorization of the Planning Official. The Planning Official may require specific construction methods and/or use of aeration devices to ensure the tree's survival and to minimize the potential for root-induced damage to the impervious surface.
- d. To the greatest extent practical, utility trenches shall be located outside of the critical root zone of trees to be retained. If tree roots must be disturbed within the critical root zone, a qualified professional report recommending the best construction method will be required.
- e. Trees to be retained shall be protected from erosion and sedimentation. Clearing operations shall be conducted to expose the smallest practical area of soil to erosion for

**Commented [SM76]:** This is helpful, but only if it is interpreted strictly. Given past practice, FHNA advocates much stronger and more specific language, viz. fences may not be moved except to the extent and under the circumstances stated explicitly in the tree plan. Any exceptions to such commitments should be approved by the planning official and noted online.

**Commented [GC77R76]:** This is language taken from today's code. MBAKS acknowledges it is very sensitive. And there can be some common ground found. MBAKS can draft some additional language but I'd like to see if this will be reviewed accepted or tossed out first.



the least possible time. To control erosion, it is encouraged that shrubs, ground cover and stumps be maintained on the individual lots, where feasible.

5. Directional Felling. Directional felling of trees shall be used to avoid damage to trees designated for retention.

#### **95.36 Off-Site Tree Planting or Fee In-Lieu.**

1. When an applicant can demonstrate through a qualified arborist analysis that the base tree densities required under KZC XX.XX.XX for on-site tree retention and planting cannot be reasonably achieved, and no other on-site planting options are available, the Director may approve off-site planting or fee in-lieu paid directly into the City's Tree Forestry Account.
  - a. Allowable sites for off-site plantings may include, but are not limited to, sites within City limits:
    - i. City-owned properties;
    - ii. Private open space such as critical areas or Native Growth Protected Areas (NGPA), parks, or street rights-of-way;
    - iii. Private property with written consent and agreement of the owner;
    - iv. Residential neighborhoods that have, as identified by the Kirkland Urban Tree Canopy Assessment (2018), the lowest Urban Tree Canopy and greatest need for increased tree canopy based on Census tract data;
    - v. Institutional (hospitals, mental health facilities), municipal (including K-12 educational facilities), government, or non-profit properties with written consent and agreement of the parties; or
    - vi. Other properties as determined by the Director.
  - b. Cost of tree planting shall be at the expense of the applicant. The amount of the fee for planting shall cover the cost of the tree(s) at current market value, installation (labor, transportation, equipment, staking, mulching), maintenance for five years (watering, warranty, and monitoring), and fund administration.
  - c. Fees for installation and maintenance shall be determined by the average of three (3) bids obtained by the City and agreed upon by the City and applicant.
  - d. Fees shall be paid to the City at the time of:
    - i. Recording for single detached homes in a subdivision or short subdivision and townhome developments; or
    - ii. Prior to issuance of building permits for all other development.

#### **95.38 Enforcement and Penalties**

Upon determination there has been a violation of any provision of this chapter, the City may pursue code enforcement and penalties in accordance with the provisions of Chapter 1.12.100 KMC, Special Provisions Relating to Enforcement of Tree regulations in Chapter 95 KZC. Tree topping shall result in the following penalties:

1. Required Trees. Trees that were required to be planted or retained by this chapter that are less than six (6) inches DBH that have been topped must be replaced pursuant to the standards in Chapter 1.12 KMC.
2. Restoration. For topped trees greater than six (6) inches DBH, property owners must have a qualified professional develop and implement a restoration pruning plan.

3. Fines. If restoration of a topped tree is impossible, the City shall impose a monetary fine of \$250 (?) per tree payable directly into the City Forestry Account.

#### **95.40 City Forestry Account**

1. Funding Sources. All civil penalties received under this chapter and all money received pursuant to KZC 95.XX shall be used for the purposes set forth in this section. In addition, the following sources may be used for the purposes set forth in this section:
  - a. Agreed upon restoration payments imposed under KZC 95.XX or settlements in lieu of penalties;
  - b. Agreed upon payment in lieu of planting required trees under KZC 95.XX;
  - c. Sale of trees or wood from City property where the proceeds from such sale have not been dedicated to another purpose;
  - d. Donations and grants for tree purposes;
  - e. Sale of seedlings by the City; and
  - f. Other monies allocated by the City Council.
2. Funding Purposes. The City shall use money received pursuant to this section for the following purposes:
  - a. Acquiring, maintaining, and preserving treed areas within the City;
  - b. Planting and maintaining trees within the City;
  - c. Establishment of a holding public tree nursery;
  - d. Urban forestry education, public outreach and communication that includes establishment of an Environmental Justice Fund to broaden community engagement and input;
  - e. Implementation of a tree canopy monitoring program, including data collection and establishment of measures;
  - f. Assist to fully staff, fund, and implement an Urban Forestry Management Department within the City of Kirkland which shall include a Public Tree Retention, Replacement, and Monitoring Program pursuant to the Urban Forestry Strategic Management Plan and the Urban Tree Canopy Assessment; and
  - g. Other purposes relating to trees as determined by the City Council.



1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the corporation. The names are listed in alphabetical order, and each name is followed by the office to which he or she has been appointed.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the corporation. The names are listed in alphabetical order, and each name is followed by the office to which he or she has been appointed.

3. The third part of the document is a list of the names of the persons who have been appointed to the various offices of the corporation. The names are listed in alphabetical order, and each name is followed by the office to which he or she has been appointed.

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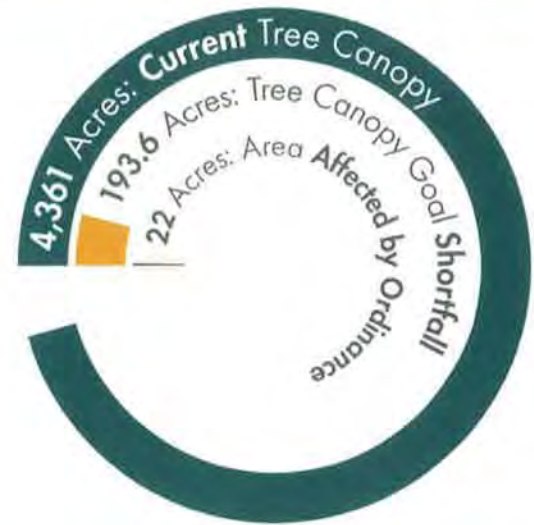
9. The ninth part of the document is a list of the names of the persons who have been appointed to the various offices of the corporation. The names are listed in alphabetical order, and each name is followed by the office to which he or she has been appointed.

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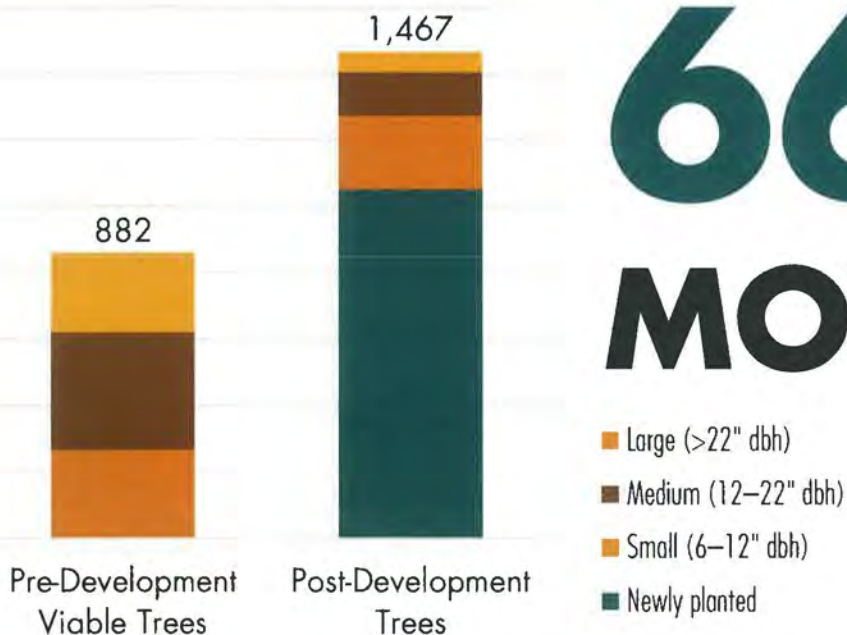
# KZC CHAPTER 95 CONSIDERATIONS

Tree code affects **less than 1%** of single-family lots per year.

Meeting Kirkland's **40%** tree cover goal would require **12,676** fully mature trees to be planted **TODAY!**



Represents single-family data only. Based on 2018 data.



# 66.3% MORE TREES

## POST-DEVELOPMENT

*on short plats/subdivisions in Kirkland under current tree code according to the 2018 Field Study Tree Data*

**\$970K** Kirkland median home price  
*in October 2019 according to Realtor.com*

A sustainable Kirkland means **balance: addressing our housing shortage** while maintaining a healthy tree canopy.





KIRKLAND TREE CODE COMPARISON	Draft Ordinance	MBAKS Proposals
Replanting standards for a healthier, more diverse tree canopy	✗	✓
Prioritizes protecting exceptionally valuable trees with special significance to neighborhoods	✓	✓
Shares responsibility for maintaining tree canopy among all zones, including public land	✗	✓
Addresses environmental equity, inclusion, and under-treed Census tracts	✗	✓
Incentives for planting or retaining trees	✗	✓
Does not mandate retention of Tier 1 trees on private property	✓	✗
Code that's easier to use, understand, and implement	✗	✓
Saves city money and staff time on endless rounds of permit review	✗	✓
Supports the Comprehensive Plan, Urban Forestry Strategic Management Plan, and Urban Tree Assessment goals	✓	✓
In line with Arbor Day Foundation Right Tree, Right Place guidelines	✗	✓
In line with original Working Group recommendations	✗	✓
In line with neighboring jurisdictions	✗	✓
Accommodates a range of housing types, including missing middle	✓	✓
Aims to reduce housing prices by cutting review time and cost	✗	✓
More predictable and flexible for homeowners and builders	✗	✓
Addresses resident concerns about solar, light, and views	✗	✓
Takes utility access and connections into account	✓	✓





November 22, 2019

Honorable Rick Whitney, Chair  
Houghton Community Council  
123 5<sup>th</sup> Avenue  
Kirkland, WA 98033

RE: KZC 95: Proposed Staff Amendments and Houghton Community Council  
Recommendations

Dear Chair Whitney and Houghton Community Councilmembers:

The Master Builders Association of King and Snohomish Counties (MBAKS) is pleased to submit comments and draft code amendments to staff's draft ordinance, KZC Chapter 95.

Everyone involved in the process to amend the tree protection ordinance has been working tirelessly to achieve similar goals. How we get there is the challenge, with differences in what process and standards should be adopted to preserve trees, retain or plant trees in the right location on development sites, and maintain a viable, sustainable urban canopy.

I stated at the joint Planning Commission/Houghton Community Council meeting on November 5 that we have failed. A strong word, and perhaps one that could have used some massaging. But I'm not going to back far away from it. Here's why.

Since June, the City has recycled draft amendments with few substantive changes or creative, out-of-the-box ideas this process lent itself to over 18-months ago.

Despite suggestions from Houghton Community Council, City Council, and various members of the community on how to stop endless review cycles, add simplicity, or even achieve the citywide canopy goal, the same approach has been repurposed and accompanied with a laundry list of missed opportunities. Here are a few examples:

- The draft does not address resident concerns over solar, light, and views
- No meaningful incentive and bonus program
- No increase in credits per acre
- No supplemental planting program or meaningful planting requirements
- No incentives for native trees, conifers or species diversity





- No proposal for managing public trees public trees (pp 14-15; Staff Report, Nov. 5, 2019)

The **draft amended ordinance continues to be long, cumbersome, complex and resembles the current ordinance in more ways than not.** And if it is different, is the City's draft amended ordinance:

- Poised to achieve a diverse, citywide 40% canopy?
- Easier to understand or implement?
- Balanced for trees and housing?
- Equitable for property owners and truly honor private property rights?
- Predictable?
- Focused on *right trees in the right places*?
- Seeking to promote site design and building flexibility, while avoiding conflicts between trees and houses?
- Aiming to improve environmental outcomes?
- Detailing how to stop endless rounds of review?
- Addressing environmental equity or justice?
- **Critical, if you, as City leadership, had to implement or use the code immediately after approving it, could you?**

At the November 5 meeting, two Planning Commissioners did not know what a tree credit is. Tree credits are in the City's current tree protection ordinance and the draft amended ordinance. **The City's draft ordinance is not understandable or usable.**

At the November 5 hearing, the Deputy Director of Planning and Building stated, "**This code will do a worse job on single-family lots.**" Hence harming a significant portion of homebuilding industry, the industry the City is relying on to help answer the call to reduce housing prices and construct more housing and more choice amid 1.8 million more people arriving to our region by 2050.

The staff report claimed, "Predictability is a term that has been used to describe a high level of consistency and certainty when code requirements are applied.... The MBAKS stakeholders were instrumental in **specifying regulatory expectations and the extent of measures for tree retention.**"

The report continues, "Many code changes help to clarify, simplify and reduce code text. However, the proposed Tier 1/Tier 2 building envelope dimensions **increase code complexity** and text.....By having two standards for tree protection, **the design and review time is anticipated to increase and make it more difficult to envision tree retention requirements at the development feasibility stage.** The benefit of this



**increase in code complexity is a greater level of predictability for developers.** (p. 4; Staff Report, Nov. 5, 2019)

This alone should send these draft amendments back to staff with requests for significant revisions. Only AFTER the City suddenly changed the Tier 2 retention requirements did MBAKS participate and specify “regulatory expectations and the extent of measure for tree retention.” MBAKS had no option. The City set its sights on a target and without input, developer, builder and home production outcomes would have been impacted even more severely.

And the reward for some level of “regulatory expectations and extent of measure for tree retention?” **“Design and review time are anticipated to increase and make it more difficult to envision tree retention requirements** at the development feasibility stage. The **benefit** of this increase in code complexity is a greater level of predictability for developers.”

Representing the homebuilding industry that is taking the direct weight and responsibility of this proposed draft ordinance, MBAKS fails to see the benefit.

MBAKS is submitting a draft amended ordinance for the Houghton Community Council’s consideration. It’s like the one submitted at the joint hearing on November 5. However, there are some differences and MBAKS urges the Houghton Community Council to review the draft before making any recommendations to the Planning Commission.

In short, MBAKS draft ordinance:

- Prioritizes exceptionally valuable trees (Tier 1)
- Establishes replanting standards to further canopy diversity and growth
- Shares responsibility for maintaining and enhancing tree canopy among all zones, including commercial and public land
- Addresses environmental equity, inclusion, and under-treed Census tracts
- Establishes meaningful incentives and bonuses for planting and retaining trees
- Allows for flexible site design and building standards to accommodate trees and a range of housing types
- Addresses resident concerns about solar, light, and views
- Is in line with Arbor Day Foundation Right Tree, Right Place, and not just through concept of utility avoidance
- Offers a credit-based approach that is straight-forward
- Recognizes natives, conifers, species, and age diversity
- Is more predictable, resulting in less review time and cost for applicants and City
- Provides a code that is easier to understand, use, and implement





- Takes language and ideas from 14 different codes around the Puget Sound region, including Kirkland's existing code
- Is shorter by approximately 7,000 words; removes detailed landscaping and maintenance provisions to be housed in a separate code section for clarity and simplification

It is imperfect. It needs some work and idea exchange. But we believe it takes into consideration the variety of ideas, challenges, and stated goals in a holistic and flexible way.

MBAKS respectfully **requests the Houghton Community Council delay action** on staff's draft amended ordinance until after the first of the year. During this time, MBAKS respectfully requests the alternative draft ordinance it is submitting be reviewed, and that the chairs of the Planning Commission, Houghton Community Council, City Manager, Planning Director, and staff meet to discuss the alternatives before making a recommendation to City Council.

MBAKS believes this is the acceptable course of action given the remaining challenges and the lack of code responsiveness to adequately address these challenges.

As always, please don't hesitate to contact me if you have any questions, feedback, or concerns. I may be reached at [gclark@mbaks.com](mailto:gclark@mbaks.com) or 425-460-8224.

Sincerely,

Gina Clark  
Government Affairs  
King County Manager

Attachments: MBAKS Proposed Draft Ordinance; KZC Chapter 95 Considerations Infographic; Municipal Code Comparison Matrix

CC: Mayor Penny Sweet and Kirkland City Council  
Kirkland Planning Commission  
Kurt Triplett, City Manager  
Adam Weinstein, Planning Director  
Jeremy McMahan, Deputy Planning Director  
Deb Powers, Urban Tree Forester

## **KIRKLAND ZONING CODE CHAPTER 95 – TREE RETENTION AND SUPPLEMENTAL REPLANTING**

### **Sections:**

**95.05 Purpose and Intent**

**95.10 Definitions**

**95.22 Tree Removal Permit Exemptions**

**95.24 Public Tree Removal and Pruning**

**95.26 Tree Retention Associated with Development Activity**

**95.28 Supplemental Tree Planting Requirements Related to Development Activity**

**95.30 Tree Location Prioritization**

**95.32 Retention Incentives**

**95.34 Tree and Soil Protection During Development Activity**

**95.36 Off-Site Tree Planting or Fee In-Lieu**

**95.38 Enforcement and Penalties**

**95.50 City Forestry Account**

### **95.05 Purpose and Intent.**

The purpose of this chapter is to establish process and standards for the preservation of trees, to retain or plant viable trees in the right location on development sites, and to maintain a sustainable urban canopy in the City of Kirkland. Specifically, it is the intent of this chapter to:

- Promote the public health, safety, and welfare of the citizens of Kirkland without preventing the reasonable development of land;
- Ensure equitable access to trees and the benefits they provide to all the citizens of Kirkland;
- Implement the goals and objectives of the City's Comprehensive Plan, the City's Urban Forest Strategic Management Plan, the City's Urban Tree Canopy Assessment, and the State Environmental Policy Act (SEPA);
- Promote flexible site planning and building practices that maintain the City's natural topography, soils, and vegetation features;
- Provide an appropriate amount and quality of tree retention related to future land uses;
- Improve the aesthetic quality of the built environment by reducing impacts on wetlands, streams and the natural environment
- Minimize surface and ground water runoff, soil erosion, land instability, sedimentation, siltation, and pollution of waterways;
- Provide for increased permeable surfaces that allow for infiltration of surface water into ground water resources, reduction in the quantity of storm water discharge, and improve the quality of storm water discharge;
- Improve noise and air pollution, mitigate urban heat islands, and decrease the overall impacts of climate change;
- Provide visual relief, screening buffers, and insulating protection from severe weather conditions;
- Providing habitat, cover, food supply and corridors for a diversity of fish and wildlife, and recreational uses for citizens;



- Provide for regulations that are clear, understandable, user friendly, easy to administer, and cost effective to enforce.

#### 95.10 Definitions.

The following definitions shall apply throughout this chapter unless the context clearly indicates otherwise. Definitions that apply throughout this code are also located in Chapter 5 KZC.

1. **Caliper** – Caliper of the trunk shall be the trunk diameter measured six (6) inches above the ground for up to and including 4-inch caliper size and 12-inches above the ground for larger sizes.
2. **Critical Root Zone (CRZ)** – The area surrounding a tree at a distance from the trunk, which is equal to one (1) foot for every inch of trunk diameter measured at 4.5 feet from grade or otherwise determined by a qualified professional. Example: a 24-inch DBH tree has a 24-foot radius CRZ encircling the trunk.
3. **Crown** – The area of a tree containing leaf- or needle-bearing branches.
4. **Diameter at Breast Height (DBH)** – The diameter or thickness of a tree trunk measured at 4.5 feet above average grade. Trees whose stems diverge below ground level are considered separate trees. A tree that has one stem at ground level but that splits into two or more stems above ground level use the following method to determine DBH. Where a tree splits into several trunks below typical DBH, the DBH for the tree is the square root of the sum of the DBH for each individual stem squared (example with three stems:  $DBH = \text{square root of } [(stem\ 1)^2 + (stem\ 2)^2 + (stem\ 3)^2]$ ).
5. **Dripline** – The distance from the tree trunk that is equal to the furthest extent of the tree's crown.
6. **Group of Trees** – A group of three (3) or more significant trees with overlapping or touching crowns, one of which is a minimum 30-inch DBH, or a group of five (5) or more significant trees, one of which is a minimum 24-inch DBH. A Group of Trees is considered a Tier 1 tree.
7. **Hazard Tree** – A tree assessed by a qualified arborist as having an Imminent or High-risk rating using the ISA Tree Risk Assessment Qualification (TRAQ) method in its most current form, as applied in KZC 95.XX.XX.
8. **Heavily Wooded Site**: A subject property that has a number of trees with crowns that cover at least 40 percent of the property
9. **Hedge** – Five (5) or more trees of the same species planted in linear formation, typically to function as a screen or barrier. Hedges are not Tier 1 trees or Groups of Trees.
10. **Inner Critical Root Zone** – An area half the distance of the Critical Root Zone. Example: a 24-inch DBH tree has a 12-foot radius Inner Critical Root Zone encircling the trunk.
11. **ISA** – International Society of Arboriculture
12. **Impact** – A condition or activity that affects any part of a tree including the trunk, branches, and Critical Root Zone.
13. **Landmark Tree** – A significant tree with a minimum single trunk 30-inch DBH in excellent-good condition per KZC 95 XX.XX, likely to survive at least additional years, and does not qualify for removal as a hazard, nuisance, or emergency according to this chapter.
14. **Limits of Disturbance (LOD)** - The boundary between the area of minimum protection around a tree and the allowable site disturbance as determined by a qualified professional.
15. **Minimum Tree Density** – The minimum number of trees per acre a development site must achieve through tree retention or supplemental planting measured in tree unit credits.
16. **Nuisance Tree** -A tree that meets any of the following criteria:
  - a. Is causing obvious physical damage to private or public structures, including but not limited to: sidewalk, curb, road, driveway, parking lot, building foundation, utilities or roof; or
  - b. Has sustained irreversible damage from past maintenance practices; or



- c. Causes increased maintenance or potential safety hazard such as from thorns, roots or fruit.
- 17. Planning Official – Designee of the City of Kirkland's Planning and Building Director.
- 18. Public Works Official – Designee of the City of Kirkland's Public Works Director.
- 19. Qualified Professional – An individual with relevant education and training in arboriculture or urban forestry, having two (2) or more of the following credentials:
  - a. International Society of Arboriculture (ISA) Certified Arborist;
  - b. Tree Risk Assessor Qualification (TRAQ) as established by the ISA (or equivalent);
  - c. American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
  - d. Society of American Foresters (SAF) Certified Forester for Forest Management Plans; or
  - e. Board Certified Master Arborist as established by the ISA.
- 20. Significant Tree – A tree that is at least six (6) inches in diameter at breast height (DBH) as measured at 4.5 feet from the ground.
- 21. Street Tree – A tree located within the public right-of-way; provided, that if the trunk of the tree straddles the boundary line of the public right-of-way and the abutting property, it shall be considered to be on the abutting property and subject to the provisions of this chapter.
- 22. Tier 1 – Level of tree retention and supplemental planting standards applied to Landmark trees and a Group of Trees associated with development.
- 23. Tier 2 – Level of retention and supplemental planting standards applied to significant trees associated with development.
- 24. Tree Topping – The severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree as to remove the normal canopy and disfigure the tree.
- 25. Tree Removal – The removal of a tree, through either direct or indirect actions, including but not limited to: (1) clearing, damaging, girdling or poisoning resulting in an unhealthy or dead tree; (2) removal of more than 25% of the live crown; or (3) damage to roots or trunk that is likely to destroy the tree's structural integrity.
- 26. Tree Density Credit (TDC) – The measurement for assessing existing trees, retention thereof, and planting of new trees. Expressed per 1,000 square feet site area.
- 27. Public Tree – A tree located in parks, along public rights-of-way, on City property.
- 28. Windfirm – A condition of a tree in which it withstands average peak local wind speeds and gusts.

#### **95.20 Tree Removal Permit Exemptions.**

The following are exempt from the provisions of this chapter:

- 1. Emergency Tree Removal. Any tree that poses an imminent threat to life or property may be removed. The City must be notified within seven (7) days of the emergency tree removal with evidence of the imminent threat. If the Planning Official determines the emergency was not warranted, the removal will be subject to code enforcement including fines and restoration pursuant to section 95.XX.XX.
- 2. Utility Maintenance. If pruning cannot first solve an interruption of service, trees may be removed by the City or utility provider. Utility maintenance shall conform to a City-approved Utility Vegetation Management Plan.
- 3. Commercial Nurseries or Tree Farms. A nursery or tree farm owner may remove trees that are being grown to be sold as Christmas or landscape trees.



## **95.22 Public Tree Removal and Pruning.**

The purpose of this section is to establish process and standards for tree removal and pruning on public property.

1. **Public Tree Removal.** Other than City crews, no person, directly or indirectly, shall remove any tree on any City property, or any tree in the public right-of-way, without first obtaining a tree removal permit unless the tree is determined to be a hazard or nuisance.
2. **Public Tree Pruning.** Any public tree pruning shall conform to the most recent version of the American National Standards Institute (ANSI) A300 - Part 1 pruning standards or as outlined in an approved Utility Vegetation Management Plan.
  - a. **Parks, Unmaintained City Right of Way, Stormwater and Other City Facilities.** Other than City crews, no person, directly or indirectly, shall prune, trim, modify, alter or damage any tree in a public park or on any other City property without first obtaining a Public Tree Pruning permit as provided in this chapter.
  - b. **Street Trees.** It is the responsibility of the adjacent property owner to maintain street trees abutting their property, which may include minor pruning. The City reserves the right to have City or utility crews perform routine pruning and maintenance of street trees.

## **95.24 Private Property Tree Removal and Pruning with No Development Activity.**

The purpose of this section is to establish process and standards for private property tree removal and pruning with no development activity.

1. **Tree Pruning on Private Property.** Any private property owner may prune trees on their property without a permit, except authorization from the City is required for work in critical areas or buffers.
2. **Tree Removal Exceptions.** Property owners may remove a maximum number of significant trees in one twelve-month period based on lot size, with the following exceptions:
  - a. Property owners may not remove trees that are not protected under a Voluntary Tree Conservation Easement;
  - b. Trees that are within the '5-Year Maintenance Covenant' period following development activity may not be cut;
  - c. An application for development has been filed;
  - d. Per Table 95.24.1, based on lot size, a private property owner may borrow against the maximum number of trees that may be removed in one twelve-month period with notice provided to the Planning Official. No permit is required. The owner may borrow up to two (2) years of future removal allowances. The property owner may not remove additional trees until the future years have expired.
3. **Removal of Significant Trees with Permit Required.** Removal beyond the provisions of .1 and .2 in this section requires a permit.

**Table 95.24.1**

**TREE REMOVAL ALLOWANCES WITHIN A 12-MONTH PERIOD**

LOT SIZE	MAXIMUM NUMBER OF SIGNIFICANT TREES ALLOWED TO BE REMOVED EVERY 12 MONTHS WITHOUT PERMIT
Lots up to 10,000 sq. ft.	2
Lots 10,000 to 20,000 sq. ft.	4
Lots 20,000 sq. ft. or greater	6
Lots over 35,000 square feet with a Forest Management Plan	>6
<i>Landowner may borrow against two (2) future years' removal allowances</i>	

4. Significant Tree Removal Permit. Private property owners requesting to remove trees exceeding allowances in Table 95.24.1 shall submit a completed permit application to the Planning Official, including:
  - a. A site plan showing the approximate location of significant trees, size (DBH) and species, along with the location of structures, driveways, access ways and easements;
  - b. For required replacement trees, a planting plan showing location, size and species of the new trees in accordance to standards set forth in KZC 95.36, Supplemental Tree Planting Requirements.
5. Tree Removal Permit Application Review and Appeals.
  - a. For requests exceeding Table 95.24.1, the City shall review the application within 21 calendar days and either approve, approve with conditions or modifications, deny, or request additional information. Any decision to deny shall be in writing along with the reasons for the denial and the appeal process.
  - b. The decision of the Planning Official is appealable per KZC 145.
  - c. Tree removal shall be completed within one (1) year from the date of permit approval.
6. Removal of Hazard or Nuisance Trees. Any private property owner seeking to remove any number of significant trees which are a hazard or nuisance in excess of their standard allowance from private property or the public right-of-way shall first obtain approval of a tree removal permit and meet the requirements of this subsection.
  - a. Tree Risk Assessment. If the nuisance or hazard condition is not obvious, a tree risk assessment prepared by a qualified professional explaining how the tree(s) meet the definition of a nuisance or hazard tree is required. Removal of nuisance or hazard trees does not count toward the tree removal limit if the nuisance or hazard is verified.
  - b. Trees in Critical Areas or Critical Areas Buffers. See Chapter 90 KZC.
  - c. The removal of any tree in the Holmes Point Overlay Zone requires the planting of a native tree of a minimum of six (6) feet in height in proximity to where the removed tree was located. Selection of native species and timing of installation shall be approved by the Planning Official.
  - d. Removal of Unreasonable Obstruction. The unreasonable obstruction of views, sunlight or solar access by planting, uncontrolled growth or maintenance of trees satisfying the



minimum requirements for relief in KZC XX.XX.X constitutes a private nuisance subject to redress as provided in KZC XX.XX.X. If a person shall plant, maintain or permit to grow any tree which unreasonably obstructs the view from, sunlight from reaching, or access to solar power to the primary living or entertainment area of any other parcel of property within the City of Kirkland as set forth in KZC XX.XX.XX, then a complainant shall have rights set forth in this chapter. *(This will require writing and adoption of a new code section acknowledging the importance, and sometimes conflicts, that arise between trees, solar, light and views, and neighboring properties/individual properties. Please reference Medina Municipal Code, Chapter 18.16)*

7. Forest Management Plan. A private property owner seeking to remove trees on developed, heavily wooded sites of at least 35,000 square feet in size where tree removal exceeds the allowances of KZC 95.24 and is not exempt under Table 95.24.1, shall submit a Forest Management Plan.
  - a. Forest Management Plan Requirements. A Forest Management Plan must be developed by a qualified professional and shall include the following:
    - i. A site plan depicting the location of all significant (a survey identifying tree locations is not required) with a numbering system of the trees (with corresponding tags on trees in the field). The site plan shall include size (DBH), species, and condition of each tree;
    - ii. Identification of trees to be removed, including reasons for their removal and a description of pursuant to subsection (11)(b) of this section;
    - iii. A reforestation plan that includes location, size, species, and timing of installation.
  - b. Forest Management Plan Standards. The following Forest Plan Management standards shall apply:
    - i. Trees to remain should be dominant or co-dominant in the stand, healthy and windfirm.
    - ii. No removal of trees from critical areas and buffers, unless otherwise permitted.
    - iii. No removal of Landmark trees or dedicated Group of Trees, unless otherwise permitted.
    - iv. No removal of trees that would cause trees on adjacent properties to become hazardous.
    - v. The reforestation plan ensures perpetuity of the wooded areas. The size of planted trees for reforestation shall be a minimum of three (3) feet tall.
    - vi. Logging operations shall be conducted as to expose the smallest practical area of soil to erosion for the least possible time. To control erosion, native shrubs, ground cover and stumps shall be retained where feasible. Where not feasible, appropriate erosion control measures to be approved by the City shall be implemented.
    - vii. Removal of tree debris shall be done pursuant to Kirkland Fire Department standards.
    - viii. Recommended maintenance prescription for retained trees with a specific timeline.
    - ix. The Planning Official may require performance security pursuant to KZC 175 in order to assure reforestation requirements of the approved forest management plan.

#### **95.26 Tree Retention Associated with Development Activity.**

1. **Tree Retention Purpose.** The City and applicant shall work collaboratively to retain trees, comply with private property rights, toward a balanced retention plan.
2. **Tree Retention Plan.** For all development, a Tree Retention Plan shall be submitted with the initial land use and/or development application. The qualified professional arborist and surveyor shall work together to identify, tag, and survey all significant trees. The city shall work with the applicant in the early planning stages to assist as possible.
3. **Modifications to the Tree Retention Plan.** Modifications may be approved pursuant to the following criteria:
  - a. **Modification Prior to Development or Construction Activity** - The Director may approve a modification request to remove Tier 1 or Tier 2 trees previously identified for retention if:
    - i. Tier 1 or Tier 2 trees inventoried in the original Tree Retention Plan have not yet been removed;
    - ii. An updated arborist report and site development plan is submitted to the Director outlining the reasons retention onsite is untenable as proposed in the original plan.
    - iii. The updated arborist report provides alternatives for tree retention and/or planting of Tier 1 or Tier 2 previously identified for retention.
    - iv. The modified, alternative plan is approved by the City within twenty-one (21) business days and shall be approved by the Director.
    - v. The updated arborist report and alternative plan, once approved by the Director, shall be posted on the project website that is maintained by the Planning Official, and available to the public.
  - b. **Modification During Development or Construction** –
    - i. Significant trees may be identified for retention during plan development phases that present potential conflicts with utilities, driveways, home footprints, excavations, and other planned improvements.
    - ii. These trees, planned to retain in good faith, may be found during construction activities to present such conflicts.
    - iii. If conflicts between construction and trees arise that present a potential challenge to retention, the City-designated and applicant arborists, as well as the City's site inspector, shall schedule a field meeting within seven (7) business days.
    - iv. The field meeting shall determine whether agreed upon measures to retain the originally proposed tree(s) are possible within approved site design parameters. If no such agreement is possible within 10 business days of conflict notice, the tree(s) may be removed. If removal is required, replanting may be required, according to this title.
4. **Tree Retention Plan Components.** The tree retention plan shall contain the following, unless waived by the Planning Official:
  - a. A tree inventory and report containing the following:
    - i. A numbering system of all existing significant trees on the subject property (with corresponding tags on trees); the inventory must also include significant trees on adjacent property with driplines extending over the subject property line;
    - ii. Limits of disturbance (LOD) of all existing significant trees (including approximate LOD of off-site trees with overhanging driplines);
    - iii. Brief general health or condition rating of these trees (i.e.: poor, fair, good, excellent, etc.);



- iv. Proposed tree status (retained or removed);
  - v. Tree type or species, DBH, assessment of health and structural viability, windfirmness following development, and tree unit credit pursuant to this chapter; and
- b. A site plan depicting the following:
- i. Location of all proposed improvements, including building footprint, access, utilities, applicable setbacks, buffers, and required landscaped areas clearly identified. If a short plat or subdivision is being proposed and the location of all proposed improvements cannot be established, a phased tree retention plan review is required as described in subsection (6)(a) of this section;
  - ii. Accurate location of significant trees on the subject property (surveyed locations may be required). The site plan must also include the approximate trunk location and critical root zone of significant trees that are on adjacent property with driplines extending over the subject property line;
  - iii. Trees labeled corresponding to the tree inventory numbering system;
  - iv. Location of tree protection measures;
  - v. Indicate LOD drawn to scale around all trees potentially impacted by site disturbances resulting from grading, demolition, or construction activities (including approximate LOD of off-site trees with overhanging driplines);
  - vi. Proposed tree status (trees to be removed or retained) noted by an 'X' or by ghosting out; and
  - vii. Proposed locations of any supplemental trees and any required trees to meet tree density or minimum tree unit credits as outlined in KZC 95.33.
- c. An arborist report containing the following:
- i. A complete description of each tree's health, condition, and viability;
  - ii. A description of the method(s) used to determine the limits of disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees);
  - iii. Any special instructions specifically outlining any work proposed within the limits of the disturbance protection area (i.e., hand-digging, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare);
  - iv. For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects, unavoidable isolation (windfirmness), or unsuitability of species, etc., and for which no reasonable alternative action is possible must be given (pruning, cabling, etc.);
  - v. Describe the impact of necessary tree removal to the remaining trees, including those in a Group of Trees or on adjacent properties;
  - vi. For development applications, a discussion of timing and installation of tree protection measures that must include fencing and be in accordance with the tree protection standards as outlined in KZC XX.XX; and
  - vii. The suggested location and species of supplemental trees to be used when required. The report shall include planting and maintenance specifications pursuant to KZC 95.XX and 95.XX.

5. Lot Clustering to Retain Tier 1 or Tier 2 Trees. With short plats and subdivisions, the Director may approve variations to minimum Lot Size, maximum Floor Area Ratio, and Lot Coverage requirements to facilitate retention of Tier 1 and Tier 2 trees in protective tracts or where lot sizes are averaged in order to retain trees. If approved, the following standards shall apply:
  - a. Lot sizes may be averaged with no minimum lot size specified, provided there is no increase in the allowed density or number of lots otherwise allowed for the subject property;
  - b. The maximum Floor Area Ratio and/or Lot Coverage requirements may be adjusted proportionate to the Lot Size reduction(s), provided there is no net increase in the aggregate Floor Area ratio and/or aggregate Lot Coverage otherwise allowed for the subject property. The variations and resultant restrictions shall be included in a recorded agreement and binding on future owners of the lots.
  - c. Tier 1 and Tier 2 Tree Retention Priorities. The City may authorize the removal of Tier 1 and Tier 2 trees required for retention if:
    - i. After utilizing the required site plan alterations and allowed variations to development standards listed in KZC and 95.30.5, encroachment into the CRZ would result in either of the following:
      - a) Tree(s) that are unsuitable for retention per the condition ratings in KZC 95.XX.X
      - b) The retention of a Tier 2 tree compromises a Tier 1 tree's suitability for retention.
6. Retention and Supplemental Planting for Tier 1 Trees. Tier 1 trees consist of Landmark trees and Groups of Trees. Tier 1 trees shall be retained, unless otherwise allowed.
  - a. Landmark Trees: Are recognized as having exceptional value adding to the character of the community because of their age, size, and condition.
  - b. Groups of Trees share community-definitional characteristics to Landmarks, and are given similar protections.
    - i. If a tree is designated a Tier 1 tree it shall be retained, provided that such retention cannot:
      - ii. Reduce maximum allowed density or number of lots; or
      - iii. Reduce maximum allowed Floor Area Ratio (FAR) or Lot Coverage; or
      - iv. Reduce building pads to no less than 40' wide at any point of the building design, or
      - v. Interfere with access and utility connections.
  - c. To retain Tier 1 trees, an applicant shall submit a development proposal that avoids Tier 1 trees. Tier 1 trees shall be retained through primary building location including flip or mirroring of the primary building and driveway, and relocation of decks, patios, and walkways.
  - d. To treat projects, properties, and applicants fairly and equitably, to reduce City staff and applicant time and resources, and to help provide community clarity over potential Tier 1 tree retention, a Tier 1 Tree Mitigation and Site Design Conference (Conference) shall be scheduled between the applicant, the applicant and City's arborists, and the Planning Official after survey and arborist reviews are complete, and as early as possible under preliminary review.
  - e. The Conference purpose is to approve a site design with Tier 1 retention measures that prioritize avoidance of Tier 1 trees. All parties involved with the Conference shall complete Tier 1 retention measures within twenty-one (21) business days. Once agreement on Tier 1 measures is obtained, it shall be posted on an online project site and maintained by the City's Planning Official.
  - f. If agreement cannot be reached within twenty-one (21) business days that balances the site's primary building footprint with retention of Tier 1 tree(s), then:



- i. The primary building footprint is maintained;
- ii. The applicant shall plant first on-site, if possible, outside the building footprint and pursuant to the on-site planting requirements of this section, or off-site, pursuant to the off-site planting requirements of this section, and at the discretion of the Planning Official, at a rate of three new trees for every removed Tier 1 tree (3:1);
- iii. Supplemental planting, location prioritization, and maintenance standards of this chapter shall apply to Tier 1 trees;
- iv. It is the intent of the City that Tier 1 trees be replaced with high quality trees that shall have the best chance of long-term health and condition when located in the right place; and
- v. Applicant's shall pay \$2200 into the City's Tree Forestry Account for every Tier 1 tree removed.

7. Retention and Supplemental Planting Requirements of Tier 2 Significant Trees.

- a. Tree Density Per Acre. A minimum tree density per 1,000 square feet of site area shall be required to retain or plant following development activities. Unless otherwise exempted, the requirement to meet a minimum tree density applies to all development activities in various zones, including new single-family homes; residential subdivisions and short subdivisions; mixed-use developments; commercial and industrial developments; municipal and institutional developments; and utility developments.
  - i. Tree retention or a combination of retention and supplemental planting shall be required to meet minimum tree density for development in each land use zone, as adopted in the City of Kirkland's updated Comprehensive Plan.
  - ii. Tree Credit Density for retained trees is calculated to determine if supplemental trees are required to be planted to meet the minimum.
  - iii. If Tree Density Credits are met through retention of significant trees, planting supplemental trees is not required, and the applicant has fully fulfilled the City's requirements. No further trees need to be retained on the lot once TDC have been met. The City shall not require any additional tree retention or planting measures once the minimum per acre tree densities are met.
  - iv. Location prioritization for both retained and planted trees is established.
  - v. The City shall not require tree retention or planting efforts that would:
    - a) Reduce maximum allowed density or number of lots; or
    - b) Reduce maximum allowed Floor Area Ratio (FAR) or Lot Coverage; or
    - c) Reduce a 50-foot wide by 50-foot deep building footprint; or
    - d) For front building facades wider than 50 feet, the maximum building footprint shall not be reduced less 10 percent of the distance between side required yards. For example: a 70-foot wide lot with two 5-foot side required yards results in a 60-foot wide building pad which can then be reduced by 10 percent, or 6-foot reduction to the building pad, which totals a 54' wide building envelope; or
    - e) Interfere with access and utility connections; or

- f) Exceed specified credit requirements.
  - In exceptional cases, the Planning Official may allow for removal of existing trees beyond the retention standards if the applicant demonstrates the proposed activity is the only reasonable alternative that will accomplish the applicant's objectives.
  - Incentives are provided for retention beyond minimum tree densities, and outside of location prioritization areas, as defined in section 95.XX.XX
- b. Tree Density Credit Requirement. The required minimum Tree Density Credits (TDC) varies by land use zoning designation and are calculated as a fraction of required minimum per 1000 square feet of site area. The minimum TDC per acre are provided in Table 95.X.XX.XX.
  - i. Tree density may consist of retained trees, supplemental trees, or a combination of both.
  - ii. Retained trees transplanted to an area on-site may count toward required TDC if approved by the Planning Official based on specifications provided by the applicant's qualified professional arborist that will ensure a good probability for survival. Trees transplanted off-site do not count toward the required density.
  - iii. TDC requirements shall be based on the full site area, excluding retained trees in wetlands, streams, landslide hazard areas, and/or associated critical areas buffers.
  - iv. If a development site falls below the minimum TDC with retained trees, supplemental tree planting is required to requirement per Table 95.26.2.
  - v. The applicant has met the requirements of Tier 2 once the minimum per acre tree densities are obtained through retention, planting, or a combination of retention and planting. The City shall not require any additional tree retention or planting measures once the minimum per acre tree densities are met.
  - vi. Where supplemental trees are required to be planted, a minimum size requirement is established to meet the required TDC.
  - vii. The DBH of the tree shall be measured in inches. The tree credit value that corresponds with DBH values is found in Table XX.XX.XX.
  - viii. If the site allows, TDC on a lot shall not be achieved through the retention or replanting of only one large tree that achieves TDC minimum.
  - ix. Retained cottonwood, vine maple, and alder trees shall not count toward the tree density requirement.



**Table 95.26.2**  
**TREE DENSITY CREDITS BY ZONE**

<b>LAND USE TYPE</b>	<b>USE INTENSITY</b>	<b>REQUIRED MIN TREE CREDITS PER 1000 SQ. FT.</b>
Single-Family Residential* *If lots smaller than 7,200 sf and/or the proposal is a short subdivision in the DC or CR zone the required credit may be reduced in half	Low/Moderate	1
Multifamily	Moderate	.40
Industrial Commercial Mixed-Use	High	.35
Public Facilities* *Including schools, public hospitals, municipal buildings, institutional	High	.35
Public Parks and Open Space	Low/Moderate	.75
Downtown Commercial	High	.20

- a. Tree Density Credit Calculation. For the purpose of calculating required minimum tree density, public right-of-way, areas to be dedicated as public right-of-way, and vehicular access easements are not included as lot area within an improved plat shall be excluded from the area used for calculation of tree density. Critical areas and associated buffers to be maintained by the development shall be excluded from the area used for calculation of Tree Density Credits, but supplemental plantings may occur in those areas.
- b. Tree Density Credit Calculation for Retained Trees.
  - i. Diameter at breast height (DBH) of the tree shall be measured in inches.

- ii. The TDC value that corresponds with DBH values shall be found in Table 95.24.2. These credits shall be multiplied by one and one-half for existing native conifers (or other conifer species as approved by the Planning Official).
  - iii. Retained alder, cottonwood, and vine maple trees shall not count toward TDC. No credits shall be given for retention of arbovitae.
  - iv. Existing trees located in critical areas and those protected within the native growth protection area tract or easement to be established by the proposal shall not count toward TDC requirement.
  - v. In calculating tree density credits, TDC shall be rounded up to the next whole number from a one-half or greater value.
- c. Supplemental Trees Planted to Meet Minimum Tree Density Requirement.
- i. For sites where existing (predevelopment) TDC is insufficient to meet TDC minimums, retention of existing identified trees consistent with KZC 95.XX.XX shall be a top priority of the site design. Additional TDC shall be achieved through supplemental planting on site.
  - ii. The Planning Official may allow for removal of trees beyond these retention standards only when the applicant demonstrates that the proposed activity requiring additional removal of existing trees is the only reasonable alternative that will accomplish the applicant's objectives, and only when supplemental trees are provided to meet tree density credit requirements. In such instances, the City may require additional on-site supplemental tree planting and/or a fee in lieu of additional supplemental tree planting to achieve higher tree density credit than the minimum required by Table 95.26.2.
- d. Minimum Size and TDC Value for Supplemental Trees. The required minimum size of a supplemental tree worth one credit for six (6) feet tall for native or other conifers and two-inch caliper for deciduous or broad-leaf evergreen trees. The installation and maintenance shall be pursuant to KZC 95.XX.XX, Landscaping Regulations.



**Table 95.26.3**

**Tree Density Credits for Retained or Supplemental Planted Trees**

<b>DBH</b>	<b>Tree Density Credits</b>
Planted 6' Conifer, or 2" cal. Deciduous	1
Planted 8' Conifer, or 3" cal. Deciduous	2
6" – < 8"	1
8" – < 12"	2
12" – < 18"	3
18" – < 22"	5
22" – < 26"	7
26" – >	9
Conifer over deciduous	1.5 x Tree Credit Above
Landmark Tree (30" and above)	1.5 x Tree Credit above

**Tree Density Credit Calculation Examples using Table XX.XX.XX and Table XX.XXX.XX**

Example: An 8,000-square-foot single family lot would need 8 tree credits ( $8,000/1000 = 8$ ). The tree density credits on the lot could be retained by one 12-inch to 18-inch tree (3 credits) and one 18-inch to 22-inch or one 8-inch (5 credits). Another option would be one 10-inch (2 credits), one 18-inch (5 credits), and one 6-inch (1 credit) existing tree for a total of 8 credits. Another option would be to retain one 20" tree (5 credits) and plant one 8' conifer ( $1.5 \times 2 \text{ credits} = 3 \text{ credits}$ ) for a total of 8 credits.

Example: A two-acre industrial site would need 30 tree credits ( $87,120 \text{ square feet}/1,000 = 87.12 \times .35 = 30.49$  or 30). TDC could be met by a retaining three 24-inch trees ( 21 credits), and planting nine 2" caliper deciduous trees (9 credits) for a total of 30 credits.

**95.28 Supplemental Tree Planting Requirements Related to Development Activity.**

1. The minimum size for supplemental trees shall be six (6) feet for conifer, two-inch caliper for deciduous.
2. In some circumstances the Planning Official may consider smaller-sized supplemental trees if the applicant can demonstrate they are more suited to the site conditions, to the species, and will be planted in quantities to meet the intent of this section.
3. The planting of native and/or species diverse trees is encouraged to help ensure the health, longevity, and age diversity of Kirkland's tree canopy.
4. A ten (10%) reduction in required Tree Credit Density shall be given to the applicant for the planting of all native trees or combination of all native or drought tolerant trees from a City approved list of

drought tolerant trees.

5. No credits shall be given or count towards minimum TDC for supplemental planting of arborvitae, alder, cottonwood, or vine maple.

#### **95.30 Tree Location Prioritization.**

It is the preference of the City to retain and plant trees on-site, with the right tree in the right place. Right tree, right place minimizes negative impacts to the environment, building footprint, use and enjoyment of private property, maintenance and intended function of buildings, and gives retained and planted trees the best chance to establish and thrive as a healthy part of a diverse canopy.

The City shall approve design and landscape plans that retain and/or plant trees in the following on-site locations (in order of priority):

1. Required site perimeter or rear or front yard setbacks;
2. Adjacent to critical areas, associated buffers, and near trees or corridors that provide habitat value;
3. Significant trees that form a continuous, healthy canopy;
4. Significant trees on slopes greater than 20%;
5. Locations that do not interfere with the use and enjoyment of private property, or the maintenance and intended function of buildings on the development site (exceptions are made for Landmark trees and Groups pursuant to KZC 95.26.6)
6. Provide a screening function, enhance privacy between existing and new neighborhoods, help add to or preserve community character, provide relief from blight or harsh light, or screen uses with adjacent zoning;
7. Adjacent to stormwater facilities as approved by public works;
8. Within required common open spaces and recreation spaces as established by the approved site plans; and
9. Incorporated into the development site's approved landscape plans.

#### **95.32 Incentive Measures.**

It is the intent of the City to retain trees on site while allowing for flexible site and building design, providing visual buffers, and improving environmental and esthetic quality. Bonuses may be earned by the applicant by providing site development and building standards or retention or planting measures that better the requirements of this section or incorporate standards and methods found in other chapters of KZC and KMC.

1. Incentive measures may include but are not limited to:
  - a. Retention or replanting of additional significant trees that enhance slope stability and reduce potential for soil erosion;
    - i. Planting of native understory landscaping within the canopy area of each significant tree that must include shrubs that will mature to a full range of understory plant heights, that would be supported by the development site's soil and tree canopy, as determined by the qualified City and applicant arborists;
    - ii. Sustainable site development strategies and qualifying sustainability certifications such as:
      - a) Low Impact Development (LID) standards within the Public Works Pre-Approved Plans and Policies and King County Stormwater Manual;
      - b) International Living Futures Institute (ILFI) Living Building Challenge;
      - c) Leadership in Energy and Environmental Design (LEED);
      - d) Built Green Net Zero;



- e) Salmon Safe, ILFI Net Zero or Passive House programs that will be equal or superior to the provisions of KZC 95; or
  - f) The installation of renewable energy system hardware such as solar panels or wind turbines.
- iii. Site design such as lot clustering that allows for the retention of, but not limited to, habitat corridors, heavily wooded sites, additional buffers between critical areas, wetlands or streams, and visual buffers between new and existing neighborhoods.
- iv. Significant tree(s) retained on the interior of the lot that provides energy savings through winter wind protection or summer shading;
- v. Retention of an additional twenty (20%) of significant TDC on the interior of the lot above Table 95.24.2.
- b. Incentives provided to the applicant may include:
  - i. Tree density credits up to a maximum of eight (8) credits for incentive measure provided;
  - ii. Expedited permit review;
  - iii. Reduction of permit fees;
  - iv. Additional FAR or Lot Coverage, or density bonus;
  - v. A reduction in on-site or off-site parking requirements;
  - vi. Setback adjustments; or
  - vii. Other bonuses at the discretion of the Planning Official.

#### **95.34 Tree and Soil Protection During Development Activity**

Prior to development activity or initiating tree removal on the site, vegetated areas, individual trees and soil to be preserved shall be protected from potentially damaging activities during development activity as follows:

1. All minimum required tree protection measures shall be shown on the tree retention plan and the site grading plan. Project site plans shall include a summary of the project-specific tree protection measures;
2. Tree Protection Fence. Before development, land clearing, filling or any land alteration, the applicant shall:
  - a. Erect and maintain readily visible temporary protective tree fencing at the approved Limits of Disturbance which surrounds the protected area of all retained trees, groups of trees, vegetation and native soil. Fences shall be constructed of chain link and be at least six (6) feet high, unless other type of fencing is authorized by the Planning Official.
  - b. Install highly visible tree protection area signs spaced no further than 25 feet along the entirety of the Tree Protection Fence. Said sign must be approved by the Planning Official and shall state at a minimum "Tree and Soil Protection Area, Entrance Prohibited" and provide the City phone number for code enforcement to report violations.
  - c. Install Site plans showing approved tree retention/protection on development sites in plain view with the general contractor or other responsible party's phone number.
  - d. Prohibit excavation or compaction of soil or other potentially damaging activities within the fence; provided, that the Planning Official may allow such activities approved by a qualified professional and under the supervision of a qualified professional retained and paid for by the applicant.
2. Prohibit placing materials near trees. No person may conduct any activity within the protected area of any tree designated to remain, including, but not limited to, operating or parking equipment,

placing solvents, storing building material or stockpiling any materials, or dumping concrete washout or other chemicals. During construction, no person shall attach any object to any tree designated for protection.

- a. If any disturbance is proposed within the Inner Critical Root Zone of significant trees on a neighboring property, the applicant shall provide evidence that the owner of said tree(s) has been notified in writing of the potential impact. The Planning Official may waive this requirement if the applicant's arborist can demonstrate, through non-injurious methods such as pneumatic root excavations, that there are no roots within the Inner Critical Root Zone.
- b. Maintain the Tree Protection Fence in its approved location for the duration of the project until the Planning Official authorizes its removal.
- c. Ensure that any approved landscaping done in the protected zone subsequent to the removal of the barriers shall be accomplished with machinery from outside the protected zone or by hand.
- d. In addition to the above, the Planning Official may require the following:
  - i. If equipment is authorized to operate within the Critical Root Zone, the soil and critical root zone of a tree must be covered with mulch to a depth of at least six (6) inches or with plywood, steel plates or similar material in order to protect roots and soil from damage caused by heavy equipment.
  - ii. Minimize root damage by hand-excavating a 2-foot-deep trench, at edge of Critical Root Zone, to cleanly sever the roots of trees to be retained. Never rip or shred roots with heavy equipment.
  - iii. Corrective pruning performed on protected trees in order to avoid damage from machinery or building activity.
  - iv. Maintenance of trees throughout construction period by watering and fertilizing.

3. Grade.

- a. The grade shall not be elevated or reduced within the Critical Root Zone of trees to be preserved without the Planning Official's authorization based on recommendations from a qualified professional. The Planning Official may allow coverage of up to one-half (1/2) of the area of the tree's Critical Root Zone with light soils (no clay) to the minimum depth necessary to carry out grading or landscaping plans, if it will not imperil the survival of the tree. Aeration devices may be required to ensure the tree's survival.
- b. If the grade adjacent to a preserved tree is raised such that it could slough or erode into the tree's Critical Root Zone, it shall be permanently stabilized to prevent soil erosion and suffocation of the roots.
- c. The applicant shall not install an impervious surface within the Critical Root Zone of any tree to be retained without the authorization of the Planning Official. The Planning Official may require specific construction methods and/or use of aeration devices to ensure the tree's survival and to minimize the potential for root-induced damage to the impervious surface.
- d. To the greatest extent practical, utility trenches shall be located outside of the Critical Root Zone of trees to be retained. If tree roots must be disturbed within the critical root zone, a qualified professional report recommending the best construction method will be required.
- e. Trees to be retained shall be protected from erosion and sedimentation. Clearing operations shall be conducted to expose the smallest practical area of soil to erosion for the least possible time. To control erosion, it is encouraged that shrubs, ground cover and stumps be maintained on the individual lots, where feasible.

4. Directional Felling. Directional felling of trees shall be used to avoid damage to trees designated for retention.



### **95.36 Off-Site Tree Planting or Fee In-Lieu.**

1. When an applicant can demonstrate through a qualified arborist analysis that the base tree densities required under Table 95.24.2 for on-site tree retention and planting cannot be reasonably achieved, and no other on-site planting options are available, the Director may approve off-site planting or fee in-lieu paid directly into the City's Tree Forestry Account.
  - a. Allowable sites for off-site plantings may include, but are not limited to, sites within City limits:
    - i. City-owned properties;
    - ii. Private open space such as critical areas or Native Growth Protected Areas (NGPA), parks, or street rights-of-way;
    - iii. Private property with written consent and agreement of the owner;
    - iv. Residential neighborhoods that have, as identified by the Kirkland Urban Tree Canopy Assessment (2018), the lowest Urban Tree Canopy and greatest need for increased tree canopy based on Census tract data;
    - v. Institutional (hospitals, mental health facilities), municipal (including K-12 educational facilities), government, or non-profit properties with written consent and agreement of the parties; or
    - vi. Other properties as determined by the Director.
  - b. Cost of tree planting shall be at the expense of the applicant. The amount of the fee for planting shall cover the cost of the tree(s) at current market value, installation (labor, transportation, equipment, staking, mulching), maintenance for five years (watering, warranty, and monitoring), and fund administration.
  - c. Fees for installation and maintenance shall be determined by the average of three (3) bids obtained by the City and agreed upon by the City and applicant.
  - d. Fees shall be paid to the City at the time of:
    - i. Recording for single detached homes in a subdivision or short subdivision and townhome developments; or
    - ii. Prior to issuance of building permits for all other development.

### **95.38 Enforcement and Penalties**

Upon determination there has been a violation of any provision of this chapter, the City may pursue code enforcement and penalties in accordance with the provisions of Chapter 1.12.100 KMC, Special Provisions Relating to Enforcement of Tree regulations in Chapter 95 KZC. Tree topping shall result in the following penalties:

1. **Required Trees.** Trees that were required to be planted or retained by this chapter that are less than six (6) inches DBH that have been topped must be replaced pursuant to the standards in Chapter 1.12 KMC.
2. **Restoration.** For topped trees greater than six (6) inches DBH, property owners must have a qualified professional develop and implement a restoration pruning plan.
3. **Fines.** If restoration of a topped tree is impossible, the City shall impose a monetary fine of \$250 (?) per tree payable directly into the City Forestry Account.

### **95.40 City Forestry Account**

1. **Funding Sources.** All civil penalties received under this chapter and all money received pursuant to KZC 95.XX shall be used for the purposes set forth in this section. In addition, the following sources may be used for the purposes set forth in this section:

- a. Agreed upon restoration payments under KZC 95.XX or settlements in lieu of penalties;
  - b. Agreed upon payment in lieu of planting required trees under KZC 95.36;
  - c. Sale of trees or wood from City property where the proceeds from such sale have not been dedicated to another purpose;
  - d. Donations and grants for tree purposes;
  - e. Sale of seedlings by the City; and
  - f. Other monies allocated by the City Council.
2. Funding Purposes. The City shall use money received pursuant to this section for the following purposes:
- a. Acquiring, maintaining, and preserving treed areas within the City;
  - b. Planting and maintaining trees within the City;
  - c. Establishment of a holding public tree nursery;
  - d. Urban forestry education, public outreach and communication that includes establishment of an Environmental Justice Fund to broaden community engagement and input;
  - e. Implementation of a tree canopy monitoring program, including data collection and establishment of measures;
  - f. Assist to fully staff, fund, and implement an Urban Forestry Management Department within the City of Kirkland which shall include a Public Tree Retention, Replacement, and Monitoring Program pursuant to the Urban Forestry Strategic Management Plan and the Urban Tree Canopy Assessment; and
  - g. Other purposes relating to trees as determined by the City Council.



## Deborah Powers

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**From:** David M Moehring <dmoehrin@uw.edu>  
**Sent:** Wednesday, November 06, 2019 12:31 PM  
**To:** Deborah Powers  
**Cc:** David M Moehring  
**Subject:** Public Comment of Nov 5 from David Moehring of TreePAC  
**Attachments:** tree candidate.pdf

The attached will help to clarify some of the information shared in public comment.

Thank you,

David Moehring AIA  
3444B 23<sup>rd</sup> Ave W Seattle WA 98199

*How will you manage....*

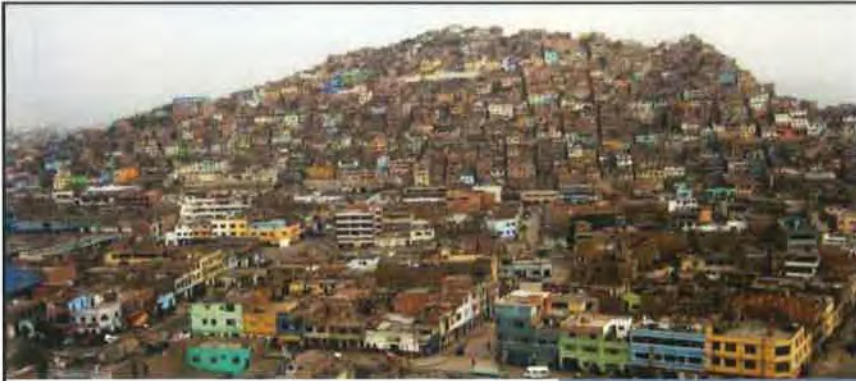


- **Climate Change**
- **Urban Density**
- **Tree Retention**

Seattle in 2019







Seattle in 2066?

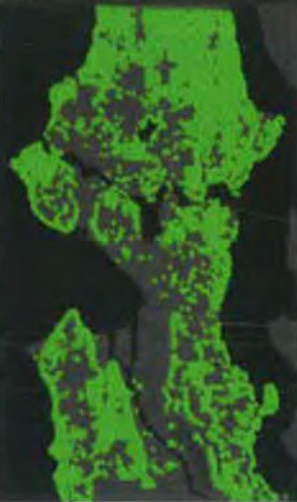


...or is this  
Seattle in 2066?

# 'Save the Last 6000' (Seattle's 2016 LiDAR Study)

seattle.gov

**6,338  
large  
trees**



## SEATTLE URBAN VILLAGES

**URBAN VILLAGES FROM COMPREHENSIVE PLAN**

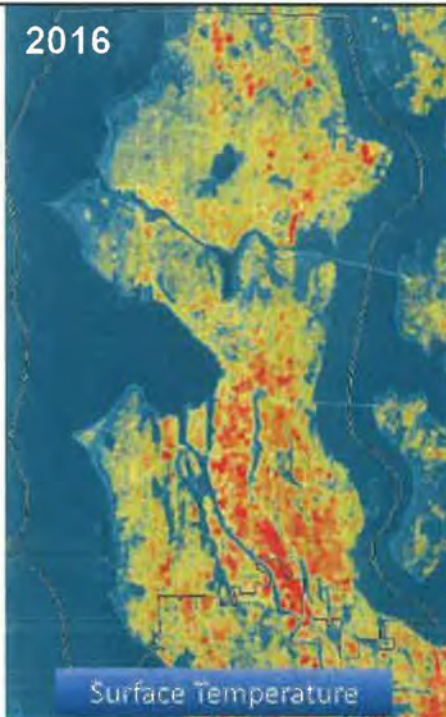
- Urban Center
- High Urban Village
- Residential Urban Village
- Plan for Single-Family Center

**URBAN VILLAGES COLLECTED FOR LIDAR**

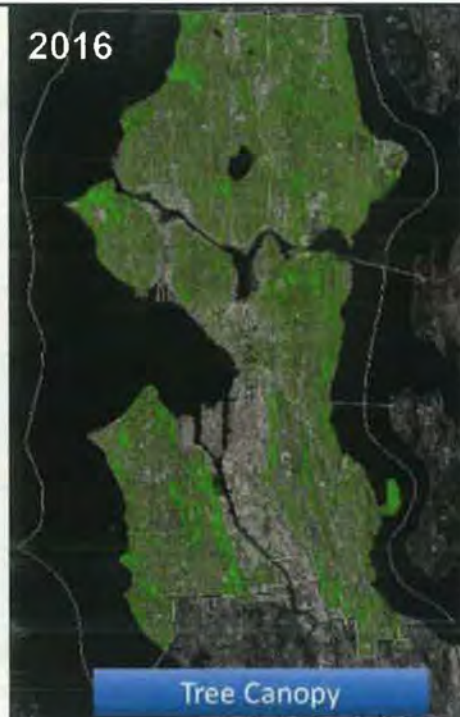
- Urban Center
- High Urban Village
- Residential Urban Village



2016



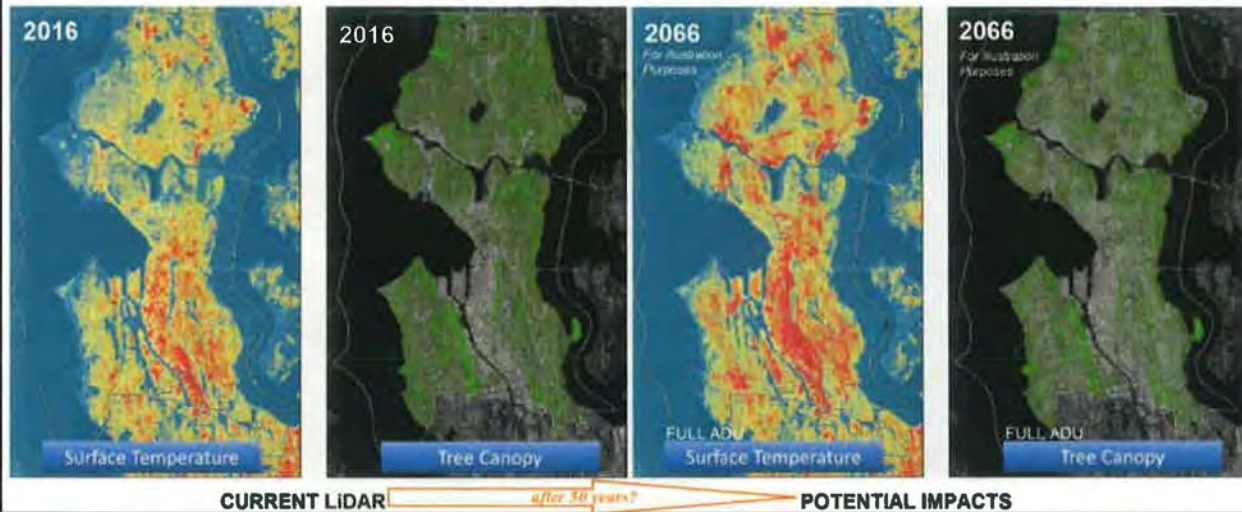
2016





## What happens after 50 years of reduced canopy?

FOR ILLUSTRATIVE PURPOSES: MODELING 'HEAT ISLAND EFFECT' (WITH REDUCED TREE CANOPY)



## Trees Are Key To Fighting Urban Heat — But Cities Keep Losing Them

<https://www.kunm.org/post/trees-are-key-fighting-urban-heat-cities-keep-losing-them>

BY NED JOHNSON & SEAN MCININCH & NORA ECKERT • 4 HOURS AGO

Share

Tweet

Email



A tree grows beneath a power line in the Park DuValle neighborhood of Louisville, Ky. Urban environments can be especially harsh on trees.

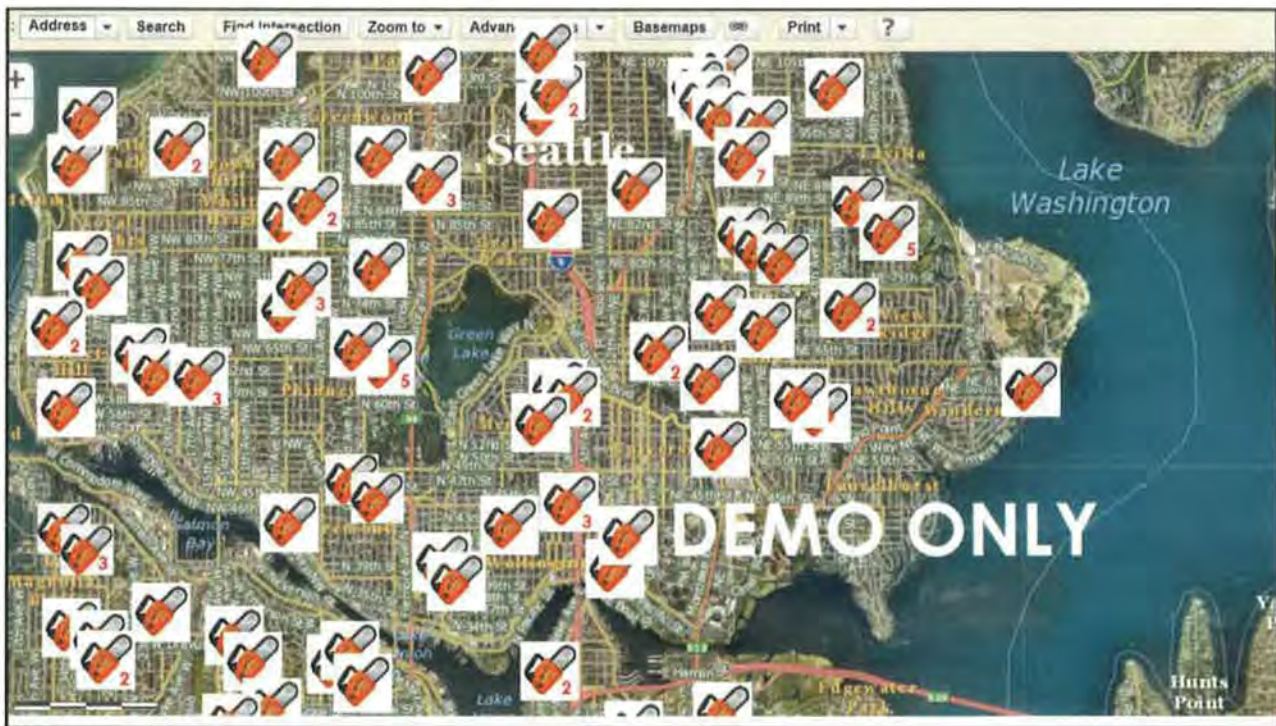
## Why Do We Need Codes to Retain Trees?







Is Seattle Tracking Tree Loss  
and Replanting?



## Tracking Neighborhood Tree Loss

Tracking Start Date	Date of Last Action	Today's Date	Address	Project Number	Threatened Trees	Exceptional?	Current Project Status
8/8/2019	7/28/2019	8/19/2019	2411 30th Ave W	6713253-CN			Correction Notice: Fire-Resistant Construction, Garage-Dwelling Separation, Minimum Room Area, Safety Glazing, Spray Applied Insulation Correction Notice: Provide recording numbers for all easement or add to this plot; Assigned unit lot addresses: X) 2411: Y) 2411B, Z2411C W Bostone
8/9/2019	8/6/2019	8/19/2019	2411 W Boston	3032582-LU			Billed for Master Use Permit
8/19/2019	3/1/2019	8/19/2019	2800 W Marine Place	3018723-LU			Construction permit issued
8/19/2019	8/8/2019	8/19/2019	3010 24th Ave W	8722371-CN			
8/19/2019	8/9/2019	8/19/2019	3011 30th Ave. W 3015 30th Ave. W 3037 27th Ave W 3238 30th Ave W 3406 34th Ave W 3412 34th Ave W 3444b 23rd Ave. W 3501 29th Ave W	6633637-CN			Correction Notice #4 issued for Drainage
8/7/2019	5/31/2019	8/19/2019	3509 W Thurman 3603 34th Ave. W 3823 34th Ave. W 3833 23rd Ave. W 4401 Williams Ave. W		2 cedars, 1 apple tree, 2 pines		Pending Environmental Review/Preliminary Assessment Report Issued



## How Does Seattle Move Toward Stronger Tree Protections ?







## Is Tree Loss Just the Consequence of More Density?



Before / During

After



2030 and 2042  
NW 62<sup>nd</sup> Street

## Ballard Townhouses Retain Exceptional and Large Trees

Add More Housing to Seattle *with* a Retained Tree Canopy!!!

*Anyone Can Do It!*

Pass the Tree Ordinance **NOW**

**SAVE OUR  
TREES**

DONTCLEARCUTSEATTLE.ORG

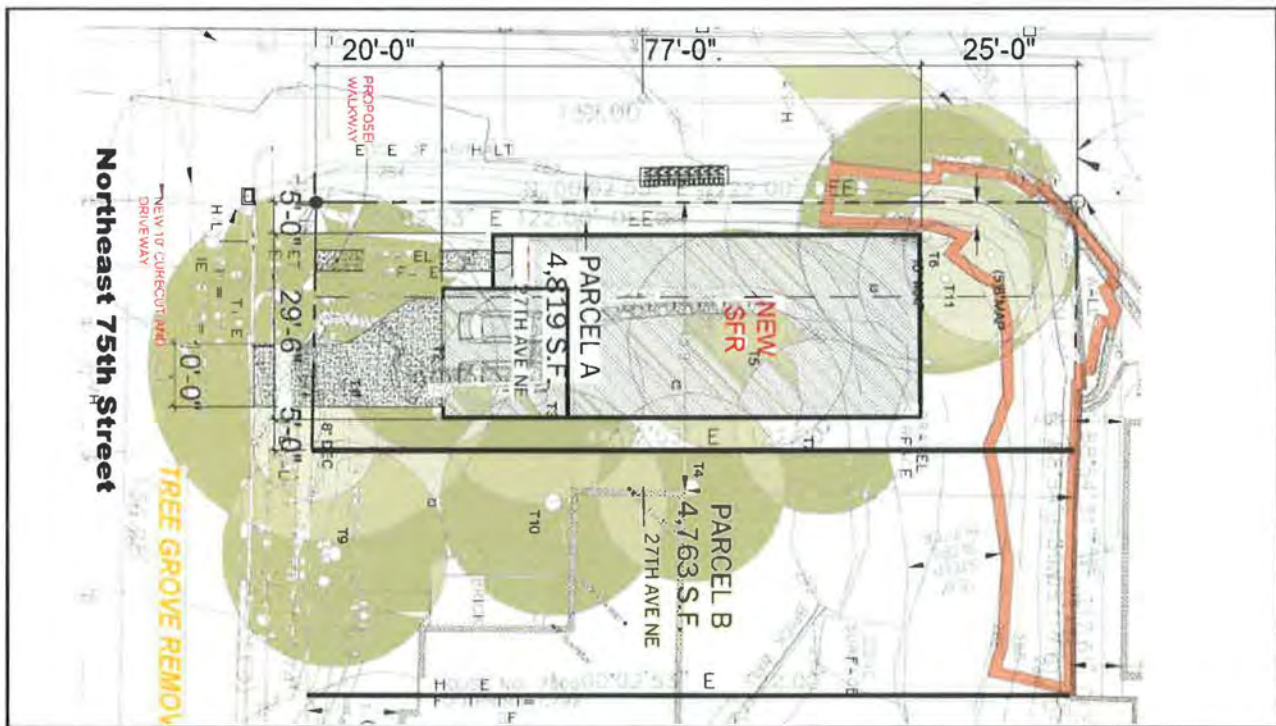




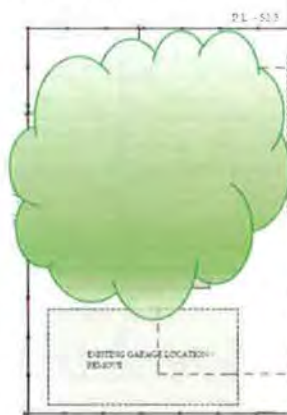
## Are Trees on Single-Family Lots Enough?

### Broken Promise (SMC 23.44)

- City Council just passed ordinance that reduced tree retention and replanting requirements to just
  - *One 2-inch caliper tree on any sized lot*
  - *From 2-inches caliper of tree for every 1000 Sq Ft of Lot area.*



## PROPOSED ADU / BACKYARD COTTAGE ADDITION (4,000 SF LOT)



Site Plan  
1/8" = 1'-0"

### ADU REAR LOT COVERAGE NOTES

- Base lot = 4,000 sq ft
- 100% rear lot coverage = 4,000 sq ft (100% of 4,000 sq ft)
- 40% rear lot coverage = 1,600 sq ft (40% of 4,000 sq ft)
- Proposed coverage = 1,600 sq ft



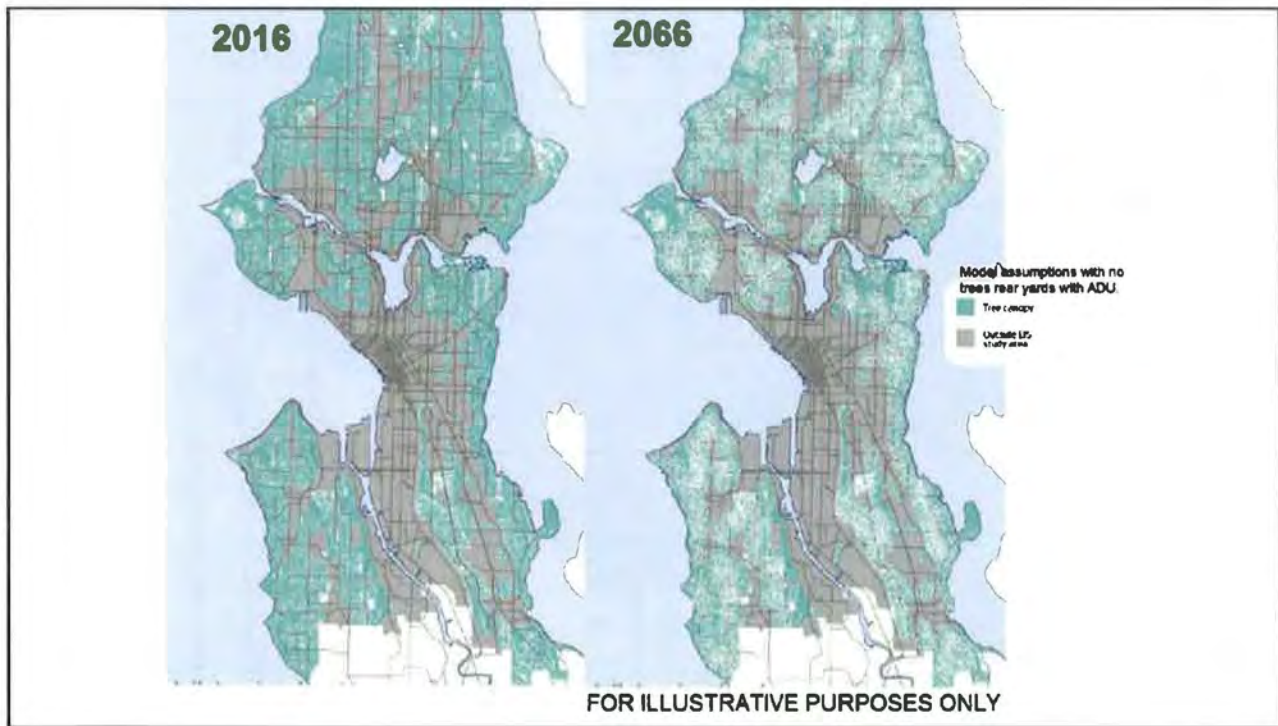
samphoas.com



8x6m

Realistic example: 26 ft by 20 ft = 520 SF level one + 480 SF level two = 1000 SF  
<https://samphoas.com/plan-3d-home-design-8x6m-with-3-bedrooms/>





Pass the Tree Ordinance **NOW**

# SAVE OUR TREES

[DONTCLEARCUTSEATTLE.ORG](http://DONTCLEARCUTSEATTLE.ORG)

Questions?

TreePA

## Deborah Powers

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**From:** Greg Slayden <gregslayden@hotmail.com>  
**Sent:** Thursday, November 21, 2019 5:30 PM  
**To:** Deborah Powers  
**Subject:** RE: Comments on Updates to Tree Ordinance

Hi, Deb,

I just wanted to add a quick follow-up to voice support for the proposed tree regulation that would prohibit “pre-cutting”. Today we saw that two 29” diameter Douglas Firs were cut on a property that is in pre-application for short-platting: <https://permitsearch.mybuildingpermit.com/PermitDetails/TRE19-08753/Kirkland>

This 2 acre forested lot in Norkirk is in pre-approval for 8 new homes. It seems likely that these two trees were being taken now, before the end of the year, to allow the developer more freedom in putting more homes into the property in 2020.

Thanks for working to make sure this kind of activity will be harder to do in the future,

—Greg Slayden  
Norkirk Neighborhood  
425-703-4389

**From:** Greg Slayden  
**Sent:** Tuesday, November 5, 2019 2:54 PM  
**To:** dpowers@kirklandwa.gov  
**Subject:** Comments on Updates to Tree Ordinance

Hi, Deb,

I appreciate the work you are doing to update Kirkland’s tree ordinance as part of the effort to increase tree canopy in the city. I will not be able to attend tonight’s meeting at city hall, but I had a few comments on the process, based on the helpful video you made about the updates to the homeowner regulations for tree removal. So I am taking this opportunity to email you some thoughts on the subject.

I would like to see the overall regulations strengthened to help meet the city’s canopy goals. I understand that making tree removal 100% illegal runs into many legal, constitutional, and practical issues and is therefore not possible. But, ideally, rules should be as strong as possible without encroaching on private property rights to the point where legal issue could arise.

And while I understand the fairness issue in the idea behind allowing larger lots to remove more than the current 2 tree annual limit, it seems obvious that relaxing this will certainly lead to more tree removal and less canopy. This would not help at all in reaching the city’s stated 40% goal, and since this rule has been on the books for some time, I see no reason to walk it back. I believe the owners of large tracts of land should bear more responsibility for the health of the city’s environmental health, in proportion to their lot size, and continuing the two-tree limit for them is a desirable goal.

I am glad to see that a new “heritage tree” designation is being proposed—I was very saddened to see the giant tree at 3<sup>rd</sup> Street and 6<sup>th</sup> Avenue cut recently, since I recall you mentioning that specific tree a few years ago. I feel that 30” is too large a threshold for heritage trees, and that other factors, especially unique species and especially the age of old



trees, should be part of the designation, not just size. Consulting with local independent arborists or consultants (not working for the real estate industry) could help come up with good criteria.

And I applaud efforts to penalize developers and property sellers for pre-cutting trees prior to a short-plat or new construction. Making them wait a year would likely be a large financial burden and hopefully lead to more compliance. And efforts to work with developers early in their process, to design around existing trees, would be a big help.

Thanks again, and I hope any tree code updates will reverse the alarming downward trend in the city's overall canopy.

--Greg Slayden  
Norkirk Neighborhood  
425-703-4389

## Deborah Powers

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**From:** Jeremy McMahan  
**Sent:** Monday, November 25, 2019 1:46 PM  
**To:** Deborah Powers  
**Cc:** Planning Commissioners  
**Subject:** FW: Tree removal and canopy regulations

**From:** The Vimonts <trvejv1@frontier.com>  
**Sent:** Monday, November 25, 2019 12:37 PM  
**To:** Houghton Council <houghtoncouncil@kirklandwa.gov>  
**Subject:** Tree removal and canopy regulations

To Whom it may concern:

As a long time resident of the Houghton community, I would like to request that the council strive to make the proposed tree removal and canopy regulations clear, definitive, equitable, and fair for all members of the community.

Thank you for your time and efforts in this endeavor.

Tom Vimont  
5030 112<sup>th</sup> Ave NE  
Kirkland, WA 98033

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