



**CITY OF KIRKLAND**  
**Planning and Building Department**  
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## **MEMORANDUM**

**To:** Kirkland Planning Commission

**From:** Houghton Community Council

**Date:** December 4, 2019

**Subject:** Houghton Community Council Recommendation  
 Amendments to Kirkland Zoning Code Chapter 95  
 Tree Management and Required Landscaping, File Number CAM18-00408

### **INTRODUCTION**

The Houghton Community Council (HCC) respectfully submits our recommendations to the Kirkland Planning Commission for amendments to Kirkland Zoning Code Chapter 95 - Tree Management and Required Landscaping. The HCC has considered all of the thoughtful public testimony received over the course of this project, both in writing and at the November 5<sup>th</sup> public hearing. In particular, the HCC extends our thanks to the stakeholder group comprised of the representatives the Master Builders of King and Snohomish County, the Finn Hill Neighborhood Alliance, and other dedicated Kirkland residents for their many hours of work aimed at improving Kirkland's tree regulations.

Early in the amendment process, the HCC, in collaboration with the Planning Commission, developed the following guiding principles for our analysis of the Chapter 95 code amendments.

1. Strive to achieve a healthy, resilient urban forest with a 40% tree canopy cover
2. Strive for an objective process with predictable outcomes
3. Consider homeowner preferences for sunlight to generate solar energy and/or photosynthesis, as well as views
4. Allow modifications to proposed building plans to retain trees that would not result in unreasonably negative consequences to property owners
5. Promote simplicity and make code easier to implement

The guiding principles acknowledge the goal of a 40% tree canopy cover for our city. They also recognize that our regulation of tree canopy must strike a balance with our citizens' ability to enjoy their homes, and to allow new development within our city with reasonable restrictions that are predictable and consistently applied. We support the "Right Tree, Right Place" philosophy of the Arbor Day Foundation, among others. This includes an expectation for the city to promote tree canopy in all its land uses, and not place a disproportionate burden on single-family residential property, particularly new development.

The HCC finds that, with the recommended changes noted below, the proposed

amendments are generally consistent with these principles.

## **KEY ISSUES**

We do call attention to provisions in the draft code that are of particular concern to the HCC. Based on our deliberations, these are regulations that the HCC finds contrary to our guiding principles and adoption of these regulations may be cause for the HCC to exercise our disapproval jurisdiction pursuant to KMC 1.12 and KZC 160.95. The following provisions of the draft code rise to that level of concern:

Prohibition of landmark tree removal on properties not being developed (Section 95.23.5a).

HCC Concern: We believe that Kirkland should not force citizens to retain a tree that seriously conflicts with their desire for sunlight for gardening, views, solar energy or simply the mental and physical benefits of sunlight. To do so will cause citizens to resent our city government, and may well lead some to remove trees preemptively to avoid their regulation.

Retention of Tier 2 trees without a cap or quota establishing the maximum number of tree credits a developer is expected to retain.

HCC Concern: Providing an objective, predictable process for determining the trees that must be retained for development has been a primary objective in improving Kirkland's tree regulations. We are convinced that the only effective way to achieve this is through a quantifiable tree credit quota system.

## **RECOMMENDATION**

The HCC recommends that the Planning Commission incorporate the following changes to the draft code. We would note that, with the exception of the Key Issues highlighted above, most of these recommendations are intended as clarifications to make the code easier to read and implement and are supported by staff.

- A. Draft Code Version:** As discussed at the public hearing with the Planning Commission, staff accepted edits from HCC members and Planning Commissioners that might improve the clarity and administration of the draft code without changing the substance or intent of the draft. To that end, HCC member Neal Black provided detailed suggestions for improvements to the draft code. Councilmember Black's suggestions have been reviewed and endorsed by both the HCC and staff and have been used by the HCC in our deliberations as the baseline version of the code. HCC and staff recommend that this improved version of the code be used by the Planning Commission as their working draft as well.
- B. Recommended Amendments:** The HCC recommends the following additional amendments to the draft code:

1. 95.10 Definitions:

95.10.4 DBH – For trees with multiple trunks, strike “a cumulative sum” of multiple trunks in favor of the industry standard formula. The industry standard is the square root of the sum of the DBHs squared. Add a provision for the calculation of DBH of multi-trunked trees that only stems of at least three (3) inches diameter at 4.5 feet height above average grade shall be included in the calculation.

95.10.16a Grove – Strike “provided that groves will not be deemed Hedge trees,” add language to ensure that groves preserved through development (KZC 95.51.3) cannot be removed as hedges

95.10.16c Hedge Trees – Add language to the end of the second sentence so that it reads “A Hedge will not be deemed a Grove or comprise regulated trees.”

2. 95.23 Tree Pruning and Removal on Private Property in the Absence of Development Activity:

**95.23.5a**- Do not prohibit landmark tree removal

95.23.5d - Strike “with notification” from the table to clarify that notification is not a requirement for these tree removals

95.23.7 - Preemptive language should only apply to the removal of landmark trees rather than the more broadly defined regulated trees

3. 95.30 Tree Retention Associated with Development Activity

95.30.2a – Modify the threshold for triggering a Tree Plan review with remodels/additions so that it is triggered with a 50% increase in the footprint rather than a 50% increase in the total square footage of improvements. This would recognize that upper story additions may not have impacts on trees.

95.30.4.a1) – Change “...in combination with...” to “...in addition to...” to clarify that the 20’x20’ footprint is additive to the 40’x40’ footprint

**95.30.4.b** – Establish a 50 tree credits per acre quota which may determine retention of Tier 2 trees. This would allow any existing Tier 2 trees to be removed once a quota of 50 tree credits per acre as calculated in 95.34 (including all Regulated trees) is reached. This does not allow removal of Tier 1 trees except as provided in 95.30.4.a. The proposed Tier 2 retention standards should still apply to ensure the application reaches the quota, but the trees chosen for retention to achieve the quota shall be determined by the applicant. If existing trees provide less than 50 credits per acre or necessary tree removal causes the property to fall below the 50 credit quota, then, the applicant must replant as necessary to meet a minimum of 30 credits per acre. When adopted, this section would require integration with other requirements of the draft code.

95.30.7 – Clarify that the intent is not to decrease the allowed FAR and Maximum Lot Coverage for clustered short plats and subdivisions

4. 95.32 Tree and Soil Protection During Development Activity  
95.32.1–Delete this section because as it is already stated in 95.23.7  
95.32.3.b – Recommend that staff develop pre-approved plans as handouts to show applicants the standard for protective signs  
95.32.4.a – Replace “light soils” with a more specific standard for fill over a CRZ
5. 95.34 Tree Planting Requirements Related to Development Activity  
95.34.2 – Clarify that tree credits for retaining existing native conifers may exceed the cap of 11 credits due to the 1.5 times credit multiplier  
95.34.2 – Recommend that staff keep a list of other non-native large conifer species that will receive the 1.5 credit to add predictability  
Table 95.34– Replace the term “Significant Trees” in the Title with the current term “Regulated Trees”. Add “and above” to the 30” DBH category for clarification  
95.34.5.b – For off-site planting of required tree credits, require a 5-year preservation agreement rather than preservation “in perpetuity”
6. 95.44 Internal Parking Lot Landscaping Requirements  
95.44.1 – Develop more robust parking lot landscaping requirements. This will accomplish the following objectives:
  - Ensure that trees in parking lots will have more space to mature than the current small landscape islands
  - Trees will have a more meaningful contribution to reducing the heat island effect from large parking lots
  - Large commercial and multifamily parking lots will contribute more meaningfully to the City’s canopy goalsThe Community Council would ask the Planning Commission to consider requirements and incentives, potentially including parking reductions, to achieve these objectives.
7. 95.50 Installation Standards for Required Parking  
95.50.12 – Clarify to read as follows: “Final Inspections – These requirements shall be completed prior to final inspection.”

## **CONCLUSION**

The Houghton Community Council appreciates the dedication of the Planning Commission, community members, and staff in improving the City’s tree regulations. We hope that all of our collaborative efforts will produce a tree code that will serve as a model for other communities to manage their urban tree canopy.



## KIRKLAND ZONING CODE CHAPTER 95 – TREE MANAGEMENT AND REQUIRED LANDSCAPING

### Sections:

- 95.05 Purpose and Intent
- 95.10 Definitions
- 95.20 Tree Removal Permit Exemptions
- 95.21 Public Tree Removal and Pruning
- 95.23 Tree Pruning and Removal on Private Property in the Absence of Development Activity
- 95.30 Tree Retention Associated with Development Activity
- 95.32 Tree and Soil Protection during Development Activity
- 95.34 Tree Planting Requirements Related to Development Activity
- 95.40 Required Landscaping Based on Zoning District
- 95.42 Land Use Buffer Requirements
- 95.43 Outdoor Use, Activity, and Storage
- 95.44 Internal Parking Lot Landscaping Requirements
- 95.45 Perimeter Landscape Buffering for Driving and Parking Areas
- 95.46 Modifications to Required Landscaping and Buffer Standards
- 95.47 Nonconforming Landscaping and Buffers
- 95.50 Installation Standards for Required Plantings
- 95.51 Tree and Landscape Maintenance Requirements
- 95.52 Prohibited Vegetation
- 95.55 Enforcement and Penalties
- 95.57 City Forestry Account

### 95.05 Purpose and Intent

1. Trees and other vegetation are important elements of the physical environment. They are integral to Kirkland's community character and protect public health, safety and general welfare. Protecting, enhancing, and maintaining healthy trees and vegetation are key community values. Comprehensive Plan Policy NE-3.1 describes working towards achieving a healthy, resilient urban forest with a City-wide tree canopy coverage of 40 percent. The many benefits of healthy trees and vegetation contribute to Kirkland's quality of life by:

- a. Minimizing the adverse impacts of land disturbing activities and impervious surfaces such as runoff, soil erosion, land instability, sedimentation and pollution of waterways, thus reducing the public and private costs for storm water control/treatment and utility maintenance;
- b. Improving the air quality by absorbing air pollutants, mitigating the urban heat island effect, assimilating carbon dioxide and generating oxygen, and decreasing the impacts of climate change;
- c. Reducing the effects of excessive noise pollution;
- d. Providing cost-effective protection from severe weather conditions with cooling effects in the summer months and insulating effects in winter;
- e. Providing visual relief and screening buffers;
- f. Providing recreational benefits;
- g. Providing habitat, cover, food supply and corridors for a diversity of fish and wildlife; and
- h. Providing economic benefit by enhancing local property values and contributing to the region's natural beauty, aesthetic character, and livability of the community.

2. Tree and vegetation removal in urban areas has resulted in the loss to the public of these beneficial functions. The purpose of this chapter is to establish a process and standards to provide for the protection, preservation, replacement, proper maintenance, and use of significant trees, associated vegetation, and woodlands located in the City of Kirkland.

The intent of this chapter is to:

- a. Maintain and enhance canopy coverage provided by trees for their functions as identified in KZC 95.05(1);
- b. Preserve and enhance the City of Kirkland's environmental, economic, and community character with mature landscapes;

- c. Promote site planning, building, and development practices that work to avoid removal or destruction of trees and vegetation, that avoid unnecessary disturbance to the City's natural vegetation, and that provide landscaping to buffer the effects of built and paved areas;
- d. Mitigate the consequences of required tree removal in land development through on- and off-site tree replacement with the goals of halting net loss and enhancing Kirkland's tree canopy to achieve an overall healthy tree canopy cover of 40 percent City-wide over time;
- e. Encourage tree retention efforts by providing flexibility with respect to certain other development requirements;
- f. Implement the goals and objectives of the City's Comprehensive Plan;
- g. Implement the goals and objectives of the State Environmental Policy Act (SEPA); and
- h. Manage trees and other vegetation in a manner consistent with the City's Urban Forest Strategic Management Plan; industry standards; and best management practices established by the International Society of Arboriculture (ISA) and the American National Standards Institute (ANSI) for Management of Trees During Site Planning, Development and Construction, Pruning, and Tree Risk Assessment.
- i. Preserve and protect street trees, trees in public parks and trees on other City property.

## 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 – The industry standard for trunk measurement of nursery stock, applicable to required replacement trees. Caliper shall be measured six (6) inches above the ground.
2. Critical Root Zone (CRZ) –The area encircling the trunk of a tree equal to one (1) foot radius for every inch of DBH. Example: a 24-inch DBH tree has a 24-foot radius CRZ measured from the face of 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. For trees with multiple trunks at 4.5 feet height, only trunks 3" DBH or greater shall be included. Where a tree splits into several trunks close to ground level, the DBH for the tree is the square root of the sum of the DBH for each individual stem squared (example with 3 trunks:  $DBH = \text{square root} [(stem1)^2 + (stem2)^2 + (stem3)^2]$ ). If a tree has been removed and only the stump remains that is below 4.5 feet tall, the size of the tree shall be the diameter of the top of the stump.
5. Dripline – The distance from the tree trunk, that is equal to the furthest extent of the tree's Crown.
7. Inner Critical Root Zone – an area half the distance of the CRZ that, when Impacted, may compromise the structural integrity of the applicable tree. Example: a 24-inch DBH tree has a 12-foot radius Inner Critical Root Zone measured from the face of the trunk.
8. Impact – A condition or activity that adversely affects any part of a tree, including, but not limited to, the trunk, branches, or CRZ.
9. Qualified Professional – An individual with relevant education and training in arboriculture or urban forestry, having two (2) or more of the following credentials:
  - International Society of Arboriculture (ISA) Certified Arborist;
  - Tree Risk Assessor Qualification (TRAQ) as established by the ISA (or equivalent);
  - American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
  - Society of American Foresters (SAF) Certified Forester for Forest Management Plans;
  - Board Certified Master Arborist as established by the ISA.

For tree retention associated with a development permit, a Qualified Professional must have, in addition to the above credentials, a minimum of three (3) years' experience working directly with the protection of trees during construction and have experience with the likelihood of tree survival after construction. A Qualified Professional must also be able to prescribe appropriate measures for the preservation of trees during land development.

10. Prohibited Plant List –The Planning and Building Department shall make available a list of trees, which may include other vegetation, that are invasive, noxious, or inappropriate species for replacement trees or for retention.

11. Significantly Wooded Site – A subject property that has trees with Crowns that, when outlined in aerial imagery, cover at least 40 percent of the total area of the property.
12. Site Disturbance – Any development, construction, or related operation that could alter the subject property, including, but not limited to, soil compaction; tree or tree stump removal; road, driveway, or building construction; installation of utilities; or grading.
13. Topping – Indiscriminate cuts made between branches that leave a stub, used to reduce the height or crown size of an established tree. Topping is not an acceptable practice pursuant to best management practices in the ANSI A300 Pruning Standards.
14. Tree Protection Zone (TPZ) – The outer boundary of a tree's protected area, as determined by a Qualified Professional, intended to protect individual trees, groups of trees' trunks, roots and soil from construction-related impacts. TPZ is measured in feet from the face of the trunk and may be determined using Critical Root Zone, Dripline, exploratory root excavations or other methodologies. The TPZ is variable depending on species, age and health of the tree, soil conditions and proposed construction. TPZ denotes the location of tree protection fencing.
15. Tree Removal – The removal of a tree, through either direct or indirect actions, including but not limited to: (1) clearing, damaging, girdling, or poisoning, in each case, resulting in an unhealthy or dead tree; (2) Topping that results in 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.
16. Trees – A tree or a group of trees may fall under one of the following definitions for purposes of this chapter:
- a. Grove – A group of three (3) or more Regulated Trees with overlapping or touching Crowns, one of which is a minimum 30-inch DBH tree in excellent or good condition per KZC.95.30.3, or a group of five (5) or more Regulated Trees, one of which is a minimum 24-inch DBH tree in excellent or good condition per KZC.95.30.3; provided, that Groves will not be deemed Hedge Trees. Strike "provided that groves will not be deemed Hedge trees," add language to ensure that groves preserved through development (KZC 95.51.3) cannot be removed as hedges.
  - b. Hazard Trees – A tree assessed by a Qualified Professional 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 95.23.10.
  - c. Hedge Trees – Five (5) or more trees of the same species with overlapping or touching Crowns that have been planted by a current or former owner of a subject property in a linear formation, typically to function as a screen or barrier. A Hedge will not be deemed a Grove or be comprised of regulated trees.
  - d. Landmark Tree – a Regulated Tree with a minimum 30-inch DBH in excellent or good condition per KZC.95.30.3.
  - e. Nuisance Tree – A tree that meets either of the following criteria:
    - 1) Is causing obvious physical damage to private or public structures, including, but not limited to: a sidewalk, curb, road, driveway, parking lot, building foundation, or roof; or
    - 2) Has sustained damage from past maintenance practices.The problems associated with a Nuisance Tree must be such that they cannot be corrected by reasonable practices, including, but not limited to: pruning of the Crown or roots of the tree, bracing, or cabling to reconstruct a healthy Crown.
  - f. Public Tree – A tree located in parks, within maintained or unmaintained public rights-of-way, in a stormwater facility, or on other property owned by the City.
  - g. Regulated Tree – A tree that is at least six (6) inches DBH that is not listed on the Prohibited Plant List.
  - h. Street Tree – A Public 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.
  - i. Tier 1 Tree(s) – Landmark Trees and Groves.
  - j. Tier 2 Tree – A Regulated Tree with any portion of the trunk located in a Required Yard or a required landscaping area in excellent or good condition per KZC 95.30.3, subsection (c).

17. Wildlife Snag – The remaining trunk of a tree that is intentionally reduced in height and usually stripped of its live branches.

18. 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 activities 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 after the emergency tree removal with evidence of the threat for removing the tree to be considered exempt from this chapter. If the Planning Official determines that the emergency tree removal was not warranted or if the removed tree was required to be retained or planted pursuant to a development permit, then the removal will be subject to code enforcement, including fines and restoration. The Planning Official may require that the party obtain a tree removal permit.
2. Utility Maintenance. Trees may be removed by the City or utility provider in situations involving interruption of services provided by a utility only if pruning cannot solve utility service problems. 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.

### **95.21 Public Tree Removal and Pruning**

1. Public Tree Removal. Other than City crews, no person, directly or indirectly, shall remove any Public Tree (including any Tree Removal as defined in KZC 95.10.15) without first obtaining a tree removal permit as provided in this chapter, unless the activity is exempt per KZC 95.20. The City will not authorize removal of any Public Tree by any private party unless the tree is determined to be a Hazard Tree or Nuisance Tree.
2. Public Tree Pruning. The pruning of Public Trees, including Street Trees, shall conform to the following:
  - a. Other than City crews, no person, directly or indirectly, shall prune, trim, modify, alter, or damage any Public Tree without first obtaining a Public Tree pruning permit as provided in this chapter, unless the activity is exempt per KZC 95.20 or falls within one of the exceptions set forth in subsection (b) below related to Street Trees.
  - b. It is the responsibility of the adjacent property owner to maintain Street Trees abutting their property, which may include minor pruning of up to one-inch diameter branches for sidewalk clearance, watering, and mulching. A Public Tree pruning permit is required to trim, modify, alter, or substantially prune branches of a Street Tree more than one-inch in diameter. The City reserves the right to have City or utility crews perform routine pruning and maintenance of Street Trees.
  - c. The pruning of Public Trees, including Street Trees, shall conform to the most recent version of the American National Standards Institute (ANSI) A300 Pruning Standards or as outlined in a City-approved Utility Vegetation Management Plan.

### **95.23 Tree Pruning and Removal on Private Property in the Absence of Development Activity**

Tree and vegetation removal in urban areas has resulted in the loss of beneficial functions provided by trees to the public. The majority of tree canopy within the City of Kirkland is on private property. The purpose of this section is to establish a process and standards to slow the loss of tree canopy on private property resulting from tree removal, contributing towards the City's canopy goals and a more sustainable urban forest.

1. Tree Removal on Private Property. No person, directly or indirectly, shall remove any Regulated Tree (including any Tree Removal as defined in KZC95.10.15) from private property without first obtaining a tree removal permit as provided in this chapter, unless the activity is exempt per KZC 95.20 or is subject to the tree removal allowances set forth in KZC 95.23.5.
2. Tree Pruning on Private Property. Any private property owner may prune trees on their property without a permit, subject to the following:

- a. Any pruning of Landmark Trees or Groves preserved pursuant to KZC 95.51.3 by private property owners shall conform to the most recent version of the ANSI A300 Pruning Standards.
  - b. Private property owners shall not prune trees located in wetlands, streams, or their buffers.
3. **Tree Removal Notification Form.** The Planning and Building Department shall make available a tree removal notification form. The tree removal notification form may be used by property owners to request review by the Planning and Building Department for compliance with applicable City regulations.
4. **Tree Removal Permit Application Form.** The applicable City department shall make available a tree removal permit application form. Property owners required by this chapter to obtain a tree removal permit shall submit a completed permit application for City review for compliance with applicable City regulations. The tree removal permit application form shall require, at a minimum, submittal of the following:
  - a. A site plan showing the approximate location of all Regulated Trees on the subject property, their DBH, and their species, along with the location of structures, driveways, access ways, and easements on the subject property.
  - b. For required replacement trees, a planting plan showing the location, size, and species of each replacement tree to be planted on the subject property, in accordance with the tree replacement requirements set forth in KZC 95.23.8.
5. **Tree Removal Allowances.** Any private property owner of developed property may remove a specified number of Regulated Trees from their property based on the table below within a 12-month period without having to apply for a tree removal permit; provided, that:
  - a. The trees are not located in wetlands, streams, or their buffers; are not located on properties in the Holmes Point Overlay area; are not located within the City's shoreline jurisdiction; are not a Landmark Tree; and do not consist of a preserved Grove pursuant to KZC 95.51.3. Trees within shoreline jurisdiction are subject to additional tree removal and replacement standards if the tree(s) to be removed are located within the required shoreline setback. See Chapter 83 KZC for additional standards;
  - b. There is no active application for development activity for the subject property;
  - c. The trees were not required to be retained or planted as a condition of previous development activity per KZC 95.40, 95.42-45;
  - d. All the additional standards for tree replacement described in KZC 95.23.8 are met.

**Table x**

<b>Lot Size</b>	<b>Maximum number of allowed Regulated Tree removal every 12 months</b>
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 greater than 35,000 sq. ft	May remove more than 6 trees with a Forest Management Plan

6. **Tree Removal Permit.** A Tree Removal Permit is required if a property owner is requesting to exceed the allowances in subsection (5) of this section, or to remove Hazard Trees or Nuisance Trees pursuant to subsection 10 of this section.
7. **Tree Removal on Private Property Prior to Development Permits.** The City will not accept any application for a short plat or subdivision for a property with a pending tree removal permit or tree removal notification. Further, with the exception of approved removals of Hazard Trees or Nuisance Trees per KZC 95.23.9, for a period of 12 months following the most recent removal of a Regulated Tree on a subject property (including girdling), the City will not accept any application for a short plat or subdivision for the subject property.

8. Tree Removal Permit Decision and Appeals.

- a. The City shall review each tree removal permit application within 21 calendar days and either approve, approve with conditions or modifications, deny, or request additional information. Any decision to deny the application 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 Chapter 145 KZC.
- c. Time Limit. Tree removal by felling shall be completed within one (1) year from the date of permit approval or the permit is void.

9. Tree Replacement Requirements.

- a. Tree Replacement. For every Regulated Tree that is removed, the City encourages the planting of a replacement tree that is appropriate to the site.
- b. Public Trees. For every Public Tree that is removed, the City shall require a minimum one-for-one replacement in a suitable location.
- c. Holmes Point Overlay Zone. 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 close proximity to where the removed tree was located. Selection of native species and timing of installation shall be approved by the Planning Official.
- d. Hedge Trees. For the approved removal of Hedge Trees, the City shall require a one-for-one replacement in a suitable location.
- e. The Last Regulated Trees on Certain Lots. For the removal of one (1) or both of the last two (2) Regulated Trees on lots containing single-family homes, cottages, carriage units, or two/three-unit homes under 10,000 square feet, approval of a tree removal permit is required and the City is authorized to require the planting of replacement trees, on a one-for-one basis, that are appropriate to the subject property and in locations on the subject property that are suitable. For the removal of one (1) or more of the last four (4) Regulated Trees on any lots under 20,000 square feet but at least 10,000 square feet, approval of a tree removal permit is required and the City is authorized to require the planting of replacement trees, on a one-for-one basis, that are appropriate to the subject property and in locations on the subject property that are suitable. For the removal of (1) or more of the last six (6) Regulated Trees on any lots 20,000 square feet or greater, approval of a tree removal permit is required and the City is authorized to require the planting of replacement trees, on a one-for-one basis, that are appropriate to the subject property and in locations on the subject property that are suitable. The replacement trees required by this subsection shall be at least six (6) feet tall for conifers and at least 2-inch Caliper for deciduous or broad-leaf evergreen trees.
- f. Other Circumstances. For all other circumstances, the required tree replacement will be based on the required landscaping standards in KZC 95.40 through 95.50.

11. 10. Removal of Hazard Trees or Nuisance Trees. Any private property owner seeking to remove any number of Regulated Trees that are Hazard Trees or Nuisance Trees from their developed or undeveloped property shall first obtain approval of a tree removal permit and meet the requirements of this subsection. Removal of a Hazard Tree or Nuisance Tree by the applicable property owner does not count toward the allowed number of tree removals set forth in KZC 95.23.5, if the conditions giving rise to the nuisance or hazard are evident in a photograph or, in the case of a Hazard Tree, the conditions giving rise to the hazard are supported by a Tree Risk Assessment prepared by a Qualified Professional in accordance with KZC 95.23.10 and approved by the City. The City may order diseased trees removed from private property as Hazard Trees to prevent the spread of a disease/pest that would cause catastrophic decline in tree health and failure.

12. Tree Risk Assessments for Hazard Trees.

- a. If the conditions giving rise to a hazard are not evident in a photograph, a Tree Risk Assessment report prepared by a Qualified Professional explaining how the tree, or trees, meet the definition of a Hazard Tree is required. Tree Risk Assessments shall follow the method for developing a tree risk rating set forth in the ISA Tree Risk Assessment Manual.
- b. The method for developing a tree risk rating set forth in the ISA Tree Risk Assessment Manual involves assessing levels of tree risk as a combination of the likelihood of a tree failing and Impacting a specified target and the severity of the associated consequences should the tree or any part of the tree fail. Potential targets are permanent structures or an area of moderate to high use. Where a potential target does not exist, applicants should consider routine pruning and maintenance.



- c. Where a tree is found to have a high risk or extreme risk rating, the Planning Official may approve mitigation measures to reduce the risk rather than approving the removal of the entire tree.
- d. Where a tree is found to have a high risk or extreme risk rating and mitigation of the risk through pruning or moving of potential targets is not feasible, the Planning Official shall approve the removal of the tree as a Hazard Tree.

13. Trees in Wetlands, Streams, or their Buffers. See Chapters 85 and 90 KZC.

- a. Hazard Trees or Nuisance Trees in wetlands, streams, or their buffers shall be removed in a manner that creates a Wildlife Snag;
- b. If creation of a Wildlife Snag is not feasible, then the felled tree shall be left in place unless the Planning Official approves tree removal in writing; and
- c. The removal of any tree in a wetland, stream, or their buffers shall be replaced with one (1) to three (3) native tree species at a minimum height of six (6) feet depending on the size, quality, and species of removed tree. The Planning Official shall determine the location and required number of replacement trees.
- d. No trees shall be removed from a wetland, stream, or their buffers unless determine to be Nuisance Trees or Hazard Trees. Any tree removal shall be authorized in advance through a tree removal permit unless emergency tree removal is warranted per KZC 95.20.1.

14. Forest Management Plan.

- a. Traditional forest management may require selective tree removal to meet objectives for sustainable growth, composition, health, and quality. A Forest Management Plan may be submitted for developed, Significantly Wooded Sites of at least 35,000 square feet in size where tree removal exceeds the allowances of KZC 95.23.5 and is not exempt under KZC 95.20. 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 Regulated Trees (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 the DBH, species, and condition of each tree;
  - ii. Identification of trees proposed to be removed, including reasons for their removal and a description of low impact removal techniques pursuant to subsection (12)(b) of this section.
  - iii. A reforestation plan that includes location, size, species, and timing of installation;
- b. The following Forest Management Plan 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 wetlands, streams, or their buffers, unless otherwise permitted by this chapter.
  - iii. No removal of Landmark Trees or Groves, unless otherwise permitted by this chapter.
  - 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 so 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.
- c. The Planning Official may require a performance security pursuant to KZC 175 in order to ensure that the reforestation requirements of the approved Forest Management Plan are met.

### 95.30 Tree Retention Associated with Development Activity

The City's objective is to mitigate the impacts of incremental canopy loss due to development by establishing clear standards for the retention of existing trees and standards for planting and maintenance of new trees.

Applicants for a development permit are encouraged to confer with City staff as early in the design process as possible so that the tree planting and retention principles found in this chapter can be incorporated into the design of the subject property. The Planning Official and the applicant shall work in good faith to find reasonable solutions.

1. **Tree Retention Plan General Requirements.** An applicant for a development permit must submit a Tree Retention Plan that complies with this section. A Qualified Professional may be required to prepare certain submittal elements at the applicant's expense. If proposed development activities call for more than one Tree Retention Plan element, the Planning Official may require the more stringent of, or a combination of, the elements based on the nature of the proposed development activities. If the proposed activity is not clearly identified in this chapter, the Planning Official shall determine the appropriate Tree Retention Plan requirements.

2. **Tree Retention Plan Applicability.** Unless otherwise exempt pursuant to KZC 95.20 or subject to the exception in subsection (a) of this section, any proposed development of the subject property requiring approval through a building permit; land surface modification permit; demolition permit; and/or Design Review, Process I, IIA, or IIB, described in Chapters 142, 145, 150 and 152 KZC, respectively, shall include a Tree Retention Plan. Tree Retention Plans containing reports of one or more Qualified Professionals in which the field work was completed over 3 years ago may need to be updated with current data.

- a. **Exception.** A Tree Retention Plan is not required for additions to and remodels of existing improvements in which the total square footage of the proposed improvements is less than 50 percent of the total square footage of the existing footprint on the subject property and no development activity is proposed within the CRZ of Tier 1 Trees or Tier 2 Trees.
- b. **Additional tree retention and protection regulations apply to:**
  - 1) Properties within jurisdiction of the Shoreline Management Act as set forth in Chapter 83 KZC;
  - 2) Properties with Critical Areas or Critical Area Buffers as set forth in Chapters 85 and 90 KZC; and
  - 3) Properties within the Holmes Point Overlay Zone as set forth in Chapter 70 KZC.

3. **Tree Retention Plan Submittal Requirements.** Tree Retention Plans shall contain the following information unless waived by the Planning Official:

- a. **Inventory.** The inventory may be noted on the site plan or in the report of a Qualified Professional, listing the following:
  - 1) All existing Regulated Trees on the subject property identified by a consistent numbering system in the report of a Qualified Professional or site plan and onsite tree tags or flagging. The inventory must also include Regulated Trees that are on adjacent properties that appear to have CRZs extending onto the subject property;
  - 2) The CRZ and the proposed TPZ of all existing Regulated Trees specified in feet from the face of each tree trunk. The inventory must also include the approximate CRZ and proposed TPZ of Regulated Trees that appear to have CRZs extending onto the subject property;
  - 3) Existing Regulated Tree DBH;
  - 4) Proposed tree removals;
  - 5) Condition rating of Regulated Trees (i.e., poor, fair, good, excellent, etc.) per KZC 95.30.3, subsection (c); and
  - 6) Tree species and/or common name.
- b. **Site plan.** The site plan must be drawn to scale showing the following:
  - 1) Location of all proposed improvements, including building footprint, access, utilities, applicable Required Yards, buffers, and required landscaped areas clearly identified.
  - 2) Surveyed location of Regulated Trees on the subject property. The site plan must also show the approximate trunk location of Regulated Trees that are potentially Impacted on adjacent properties;



- 3) Trees labeled corresponding to the tree inventory numbering system per subsection (a) of this section;
- 4) CRZs drawn to scale around all trees potentially impacted by site disturbances resulting from grading, demolition, or construction activities (including approximate CRZs of all trees that are potentially Impacted on adjacent properties);
- 5) Location of tree protection fences at the proposed TPZs, with distances from the applicable trunks to fences noted on the site plan. Specific tree protection standards during construction are described in KZC 95.32. These standards must be adhered to and included on demolition, grading, and building permit plans;
- 6) Trees proposed to be removed, noted by an 'X' or by ghosting out;
- 7) Proposed locations of any replacement trees to be planted to meet tree density credits or the minimum number of trees as outlined in KZC 95.34.

c. Report of a Qualified Professional with the following:

- 1) The condition rating for each Regulated Tree based on its health and structure, including Regulated Trees that appear to have CRZs extending onto the subject property. The condition rating for each Regulated Tree shall be assessed using the following criteria:

<b>Condition Rating</b>	<b>Tree Structure</b> <i>Root flare, trunk condition, branch assembly</i>	<b>Tree Health</b> <i>Twig and leaf density, size and growth, pest/pathogen issues</i>
Excellent	Trunk and root flare are sound and solid, no visible defects or cavities. Generally symmetric crown. Branch spacing, structure and attachments are normal for species and free of defects.	High vigor with little to no twig dieback, discoloration or defoliation. No apparent pest problems. New growth has normal to exceeding shoot length. Leaf size and color normal. Exceptional life expectancy for the species.
Good	Well-developed structure. Defects are minor and can be corrected. Codominant stem formation may be present. Trees that are part of a designated grove may have major asymmetries/deviations form an open-grown form of the same species.	Vigor is normal for species. No significant damage due to diseases or pests. Any twig dieback, defoliation or discoloration is minor (less than 25% of the crown). Typical life expectancy for the species. Trees that are part of a designated grove may have reduced vigor compared to an open-grown form of the same species.
Fair	A single defect of a significant nature such as a trunk cavity or multiple moderate defects such as large girdling roots, trunk damage, evidence of decay that are not practical to correct or would require multiple treatments over several years.	New growth is stunted or absent. Twig dieback, defoliation, discoloration, and/or dead branches may compromise from 25-50% of the crown. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Below average life expectancy.
Poor	High to imminent risk trees (hazard). Structural problems cannot be corrected. Failure may occur at any time.	Poor vigor, unhealthy and declining. Low foliage density with extensive (more than 50%) twig and/or branch dieback. Smaller-than-normal leaf size and little evidence of new growth. Potentially fatal pest infestation.

- 2) For trees not suitable for retention, a description of the reason(s) for removal must be given based on poor health; high risk of failure due to poor structure, other defects, or unavoidable isolation (windfirmness); or unsuitability of species, etc., and for which no reasonable alternative action is possible (pruning, cabling, etc.);
- 3) The Qualified Professional's description of the method(s) used to determine the TPZs (i.e., CRZ formula,, exploratory root excavations, or a case-by-case basis description for individual trees);
- 4) Any special instructions specifically outlining any work proposed within the CRZ of retained trees (i.e., additional protection from soil compaction, hand-digging, tunneling or boring, root pruning, mitigating any grade changes, monitoring during development activity, and aftercare), including potentially Impacted trees on adjacent properties;

- 5) A discussion of timing and installation of tree protection measures that must include fencing in accordance with the tree protection standards in KZC 95.32, including any anticipated changes to tree protection fence location or other activity within the CRZ of retained trees during project construction (i.e. material delivery, equipment access, landscaping, etc.);
- 6) Describe the impact of necessary tree removal to the trees to be retained, including those in a Grove or on adjacent properties;
- 7) The suggested location and species of replacement trees to be planted. The report shall include planting and maintenance specifications pursuant to KZC 95.50, 95.51, and 95.52.

#### 4. Tree Retention Plan Review Standards for Development of Single-Family Dwellings, Short Plats, Subdivisions, and Two/Three-Unit Homes.

To retain Regulated Trees, the applicant shall modify its proposed design, consistent with the provisions in this chapter that allow development standards to be modified. The authority to make decisions under this chapter resides with the Planning Official for building permits, land surface modification permits, and/or demolition permits or with the applicable decision authority for Design Review, Process I, IIA, or IIB permits described in Chapters 142, 145, 150 and 152 KZC, respectively.

The City does not require tree retention efforts that would reduce maximum allowed density or number of lots or maximum allowed Floor Area Ratio (FAR) or Maximum Lot Coverage or that preclude required access and utility connections.

Tree Retention Plan review and approval shall be based on compliance with the following provisions:

- a. Tier 1 Trees located anywhere on the subject property shall be retained using the following standards:
  - 1) The applicant is entitled to a maximum building footprint, where consistent with applicable dimensional standards, in a configuration of 40-foot wide by 40-foot deep building footprint, in addition to a contiguous 20-foot wide by 20-foot deep building footprint that may shift location around Tier 1 Trees. An applicant is not required to limit the building footprint pursuant to this section where the limitation is not necessary to retain one or more Tier 1 Tree(s).
  - 2) In order to retain Tier 1 trees, the applicant shall pursue, and the Planning Official is authorized to require, site plan alterations, such as adjustments to the location of building footprints, adjustments to the location of driveways and other access ways, or adjustment to the location of walkways, easements, or utilities, including the following:
    - a) Shift or flip (mirror) the location of building footprints and driveways;
    - b) Selection of the required front yard on corner lots in the RSA and RSX zones and selection of the required side yard to meet the 15-foot total required in RS zones;
    - c) Adjust deck, patio, and path designs;
    - d) Relocate utilities when gravity and location of existing mains permit;
    - e) Avoid rockery/retaining walls located within CRZs;
    - f) Shore basements and other extensive excavations in order to avoid impact within CRZs;
    - g) Cantilever structures over CRZs; and
    - h) With short plats and subdivisions, clustering per KZC 95.30.7, subsection (b), rearrangement of property lines within the applicable short plat or subdivision, relocation of access roads, and relocation of utilities.
  - 3) The applicant shall employ arboricultural methods such as air excavations, boring under roots instead of trenching, and using additional CRZ protection per KZC 95.34.
  - 4) The applicant may pursue the following variations prior to restricting/adjusting the building footprint, and the Planning Official (or Public Works Official, where applicable) is authorized to allow these variations to development standards:
    - a) Allow 10-foot front and 5-foot rear Required Yards;
    - b) Allow variations to the garage requirements of KZC 115.43.3;

- c) Allow variations to the maximum lot coverage by not more than 10 percent, where necessary, and the driveway width does not exceed a width of 20 feet to extend access due to building footprint location;
- d) Allow 18-foot by 18-foot parking pads;
- e) Modify right-of-way frontage improvement requirements, such as waiving any required landscape strip.;
- f) Allow up to a 5-foot increase in building height where the additional height is clearly related to tree retention (i.e., locating mechanical equipment in the attic, avoiding excavation or fill, etc.);
- g) With short plats and subdivisions, allow 3-foot required side yards within the proposed short plat or subdivision.

b. Tier 2 Trees shall be retained using the following standards:

1) The applicant is entitled to a maximum building footprint of the following configuration, where consistent with applicable dimensional standards:

- a) 50-foot wide by 50-foot deep building footprint, or
- b) . For parcels where an applicant could otherwise construct a Front Façade that is wider than the 50-foot wide building footprint, the allowable width of the Front Façade shall be determined by measuring the distance between the Required Yards parallel to and along the Front Façade and reducing that width by 10% as provided in the formula below:

$$\text{MAXIMUM FRONT FAÇADE WIDTH} = (\text{DISTANCE BETWEEN REQUIRED YARDS}) - (\text{DISTANCE BETWEEN REQUIRED YARDS} \times 10\%)$$

For example: a 70-foot wide lot with a 60-foot wide front building facade and two 5-foot side Required Yards results in a 10 percent, or 6-foot reduction, to the building pad width, which totals a 54-foot maximum building envelope width.

An applicant is not required to limit the building footprint pursuant to this section where the limitation is not necessary to retain one or more Tier 2 Tree(s).

2) In order to retain Tier 2 trees, the applicant shall pursue and the Planning Official is authorized to require site plan alterations, including the following:

- a) Shift or flip (mirror) the location of building footprints and driveways;
- b) Selection of the required front yard on corner lots in the RSA and RSX zones and selection of the required side yard to meet the 15-foot total required in RS zones;
- c) Reduce required front yard by up to 5 feet and reduce any rear yards that are not directly adjacent to another parcel's rear yard but that, instead, are adjacent to an access easement or tract by up to 5 feet;
- d) Shift the building footprint on the lot to take advantage of the modifications/reductions allowed in subsection (4);
- e) Adjust deck, patio, and path designs;
- f) Avoid rockery/retaining walls located within CRZs; and
- g) Bore under roots within TPZs for utilities less than 2 inches diameter.

3) The applicant may pursue the following variations prior to restricting/adjusting the building footprint, and the Planning Official (or Public Works Official, where applicable) is authorized to allow these variations to development standards:

- a) Allow 10-foot front and 5-foot rear Required Yards;
- b) Allow variations to the garage requirements of KZC 115.43.3;
- c) Allow variations to the maximum lot coverage by not more than 10 percent, where necessary, and the driveway width does not exceed a width of 20 feet to extend access due to building footprint location;

d) Modify right of way frontage improvement requirements, such as waiving any required landscape strip;

e) With short plats and subdivisions, clustering per KZC 95.30.7, subsection (b).

5. Tree Retention Plan Review Standards for Development of Multifamily, Commercial, Mixed Use, and Cottage/Carriage Development.

To retain Regulated Trees in Required Yards and/or required landscape areas, the applicant shall modify its proposed design, consistent with the provisions in this chapter that allow development standards to be modified. The authority to make decisions under this chapter resides with the Planning Official for building permits, land surface modification permits, and/or demolition permits or with the applicable decision authority for Design Review, Process I, IIA or IIB permits described in Chapters 142, 145, 150 and 152 KZC, respectively.

The City does not require tree retention efforts that would reduce maximum allowed density or Lot Coverage or that preclude required access and utility connections.

Tree Retention Plan review and approval shall be based on compliance with the following provisions for Regulated Trees located in Required Yards and/or required landscape areas. Regulated Trees in these areas shall be retained to the maximum extent possible using the following standards:

- a. Adjust deck, patio, and path designs;
- b. Relocate utilities when gravity and location of existing mains permit;
- c. Avoid rockery/retaining walls located within CRZs;
- d. Shore basements and other extensive excavations in order to avoid impact within CRZs;
- e. Cantilever structures over CRZs;
- f. Employ arboricultural methods such as air excavations, boring under roots instead of trenching, and using additional CRZ protection per KZC 95.34;
- g. Modify right-of-way frontage improvement requirements, such as waiving any required landscape strip;
- h. Reduce or vary the area, width, or composition of any required common recreational open space;
- i. Vary parking lot design and/or access driveway requirements when the Public Works Official and Planning Official both determine the variations to be consistent with the intent of City policies and codes; and
- j. Vary requirements pertaining to stormwater if approved by the Public Works Official under KMC 15.52.060.

6. Tier 1 Tree and Tier 2 Tree Retention Priorities. The City may authorize the removal of Tier 1 Trees and Tier 2 Trees otherwise required by this chapter to be retained if:

- a. After utilizing the required site plan alterations and allowed variations to development standards listed in KZC 95.30.4 and 95.30.5, encroachment into the CRZ of one or more Tier 1 Tree or Tier 2 Tree would result in either of the following:
  - 1) One or more Tier 1 Trees or Tier 2 Trees that are unsuitable for retention per the condition ratings in KZC 95.30.3, subsection (c), in which case the City may authorize the removal of the applicable Tier 1 Trees or Tier 2 Trees; or
  - 2) Conditions in which the retention of a Tier 2 Tree compromises a Tier 1 Tree's suitability for retention, in which case the City may authorize the removal of the applicable Tier 2 Tree.
- b. Proposed alternative measures using sustainable site development strategies and qualifying sustainability certifications result in development sites that are equal or superior to the intent of this chapter, such as:
  - 1) Low Impact Development (LID) standards within the Public Works Pre-Approved Plans and Policies and King County Stormwater Manual;
  - 2) International Living Futures Institute (ILFI) Living Building Challenge;
  - 3) Leadership in Energy and Environmental Design (LEED);
  - 4) Built Green Net Zero;
  - 5) Salmon Safe, ILFI Net Zero or Passive House programs; and
  - 6) The installation of renewable energy system hardware, such as solar panels or wind turbines.

Requests to use alternative measures and procedures shall be reviewed by the Planning Official, who may approve, approve with conditions or modifications, or deny the request. The Planning Official and the applicant shall work in good faith to find reasonable solutions.

**7. Additional Tree Retention Plan Standards for Short Plats and Subdivisions.**

a. **Modifications.** Modifications to the Tree Retention Plan may be approved by the Planning Director pursuant to the following criteria:

- 1) The need for the modification was not known and could not reasonably have been known before the Tree Retention Plan was approved;
- 2) The modification is necessary because of special circumstances that are not the result of actions by the applicant regarding the size, shape, topography, or other physical limitations of the subject property relative to the location of proposed and/or existing improvements on or adjacent to the subject property; and
- 3) There is no practicable or feasible alternative development proposal that results in fewer additional tree removals.

b.) **Public Notice for Modifications.** The Planning Director shall not approve or deny a modification pursuant to this subsection without first providing notice of the modification request consistent with the noticing requirements for the short plat or subdivision and providing opportunity for comments for consideration by the Planning Director. Said comment period shall not be less than 14 calendar days. The fee for processing a modification request shall be established by City ordinance.

c. **Clustering of Lots Associated with Short Plats and Subdivisions.** The Planning Director may approve variations to minimum Lot Size and maximum Floor Area Ratio and Lot Coverage requirements in order to facilitate retention of Tier 1 Trees and Tier 2 Trees where necessitated by retention of trees in protective tracts or where lot sizes are averaged in order to retain trees. The following standards shall apply:

- 1) 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;
- 2) The maximum Floor Area Ratio (FAR) 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 (FAR) 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. [Clarify: intent is not to decrease the allowed FAR and Maximum Lot Coverage for clustered short plats and subdivisions].

**95.32 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 per ISA and ANSI standards for tree protection as follows:

1. **Placing Materials near Trees.** No person may conduct any activity within the TPZ 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.

2. **Tree Protection Fence.** Before development, land clearing, filling, or any land surface modifications, the applicant shall:

- a. Erect and maintain readily visible temporary protective tree fencing at the approved Limits of Disturbance which completely 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 signs spaced no further than 15 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. (administratively provide handouts of Pre-Approved Plans fence detail)

- c. Site plans showing approved tree retention/protection shall be displayed 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.
- e. If any disturbance is proposed within the Inner Critical Root Zone of one or more Regulated 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 Qualified Professional can demonstrate, through non-injurious methods such as pneumatic root excavations, that there are no roots within the Inner Critical Root Zone.
- f. Maintain the Tree Protection Fence in its approved location for the duration of the project until the Planning Official authorizes its removal.
- g. 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.
- h. In addition to the above, the Planning Official may require the following:
  - 1) If equipment is authorized to operate within the CRZ, the soil and CRZ 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.
  - 2) Minimize root damage by hand-excavating a 2-foot-deep trench, at the edge of the CRZ, to cleanly sever the roots of trees to be retained. Never rip or shred roots with heavy equipment.
  - 3) Corrective pruning performed on protected trees in order to avoid damage from machinery or building activity.
  - 4) Maintenance of trees throughout construction period by watering and fertilizing.

### 3. Grade.

- a. The grade shall not be elevated or reduced within the CRZ 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 CRZ with (insert soil specification here) 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 CRZ, 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 CRZ 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 CRZ of trees to be retained. The Planning Official may require that utilities be tunneled under the roots of trees to be retained if the Planning Official determines that trenching would significantly reduce the chances of the tree's survival.
- e. Trees and other vegetation to be retained shall be protected from erosion and sedimentation. Clearing operations shall be conducted so as 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.

5. Additional Requirements. The Planning Official may require additional tree protection measures that are consistent with accepted urban forestry industry practices, including maintenance pursuant to KZC 95.51.



### 95.34 Tree Planting Requirements Related to Development Activity

This section establishes the minimum tree planting requirements for development permits using a tree credit system. This section does not establish a maximum retention standard for existing trees.

1. Trees Required to be Planted to Meet Tree Density Requirements. The required tree density for replanting is 30 tree credits per acre for single-family homes, cottages, carriage units, two/three-unit homes, short plats, and/or subdivisions and associated demolition and land surface modification.

2. Applicability of Tree Credits. The tree credit value that corresponds with DBH shall be found in Table 95.34. The maximum number of credits awarded to any one individual tree is 11 credits. Existing native conifers (or other conifer species (reference list) shall count 1.5 times credits for retention. For individual lots in a short plat or subdivision with an approved Tree Retention Plan, the required tree density applies to each lot within the short plat or subdivision. Trees planted in the following locations shall not count towards tree density credit requirements:

a. in the public right of way, areas to be dedicated as public right of way, and vehicular access easements not included as lot area with the approved short plat or subdivision.

b. Existing trees transplanted to an area on the same site unless approved by the Planning Official based on transplant specifications provided by a Qualified Professional that will ensure a good probability for survival

**Table 95.34.**  
**Tree Density for Existing Regulated Trees**  
**(Credits per minimum diameter – DBH)**

DBH	Tree Credits	DBH	Tree Credits	DBH	Tree Credits
3 – 5"	0.5				
6 – 10"	1	24"	8		
12"	2	26"	9		
14"	3	28"	10		
16"	4	30"	11		
18"	5				
20"	6				
22"	7				

3. Tree Density Credit Calculation. To calculate required tree density credits, divide the square foot area of the subject lot by 43,560 (the square foot equivalent to one acre). The resulting number is then multiplied by 30, the minimum tree density credit requirement for one acre. In calculating required tree density credits, any fraction of credits shall be rounded up to the next whole number from a 0.5 or greater value.

Example: an 8,500-square-foot lot would need six (6) tree credits ( $8,500/43,560 = 0.195 \times 30 = 5.8$ , or six (6) credits). The tree density for the lot would be exceeded/met by retaining two (2) existing Landmark Trees and two (2) existing 12-inch DBH Tier 2 Trees that are conifers (tree densities may be exceeded to retain Landmark Trees and existing native conifers count 1.5 times credits). Or, the tree density for the lot would be met by retaining two (2) existing 14-inch DBH deciduous Tier 2 Trees.

4. Minimum Size for Replacement Trees. The required minimum size of a replacement tree worth one (1) tree credit shall be four (4) feet tall for native or other conifers and 2-inch Caliper for deciduous or broad-leaf evergreen trees.

Additional credits may be awarded for larger replacement trees. Trees planted to form a clipped or sheared hedge or living wall will not be counted toward tree density credits. Supplemental Thuja/Arborvitae or other slow-growing conifers (reference list) planted on development sites shall not count towards tree density credits on a lot. The installation and maintenance shall be pursuant to KZC 95.50 and 95.51 respectively.

5 Replacement Tree Locations. In designing a development and in meeting the required tree density, the replacement trees shall be planted pursuant to KZC 95.50 in the following order of priority:

- a. On-Site. The preferred locations for new trees are:
  - 1) On individual residential building lots
  - 2) In preserved Groves, Critical Areas or Critical Area Buffers.
  - 3) Adjacent to storm water facilities as approved by Public Works under KMC 15.52.060.
  - 4) Site perimeter – The area of the subject property that is within 10 feet from the property line.
  - 5) Entrance landscaping, traffic islands, and other common areas within the development of residential subdivisions.
- b. Off-Site. When room is unavailable for planting the required replacement trees on site, then they may be planted at another approved location in the City. Trees that are planted off site from the subject property shall be subject to a 5 Year Maintenance Agreement.

6. Payment in Lieu of Planting. When the Planning Official determines on-site and off-site locations are unavailable, then the applicant shall pay an amount of money in lieu of planting, utilizing the most recent version of the Pacific Northwest International Society of Arboriculture (PNW ISA) "Species Ratings for Landscape Tree Appraisal" unit costs for conifers and deciduous trees, multiplied by the number of required tree credits into the City Forestry Account pursuant to KZC 95.57.

#### **95.40 Required Landscaping based on Zoning District**

1. User Guide. Chapters 15 through 56 KZC containing the use zone or development standards tables assign a landscaping category to each use in each zone. This category is either "A," "B," "C," "D," or "E." If you do not know which landscaping category applies to the subject property, you should consult the appropriate use zone or development standards tables.

Requirements pertaining to each landscaping category are located throughout this chapter, except that Landscaping Category E is not subject to this section.

Landscape Categories A, B, C, D, and E may be subject to additional related requirements in the following other chapters:

- a. Various use zone charts or development standards tables, in Chapters 15 through 56 KZC, establish additional or special buffering requirements for some uses in some zones.
  - d. Chapter 110 KZC and Chapter 19.36 KMC address vegetation within rights-of-way, except for the I-405 and SR-520 rights-of-way, and the Cross Kirkland Corridor railbanked rail corridor or the Eastside Rail Corridor.
  - e. KZC 115.135, Sight Distance at Intersections, which may limit the placement of landscaping in some areas.
  - f. Chapter 22 KMC addresses trees in subdivisions.
2. Use of Significant Existing Vegetation.
- a. General. The applicant shall apply subsection KZC 95.30, Tree Retention Plan Procedure to retain existing native trees, vegetation and soil in areas subject to the landscaping standards of this section. The Planning Official shall give substantial weight to the retained native trees and vegetation when determining the applicant's compliance with this section.
  - b. Replacements. The City may require the applicant to plant trees, shrubs, and groundcover according to the requirements of this section to supplement the existing vegetation in order to provide a buffer at least as effective as the required buffer.
  - c. Protection Techniques. The applicant shall use the protection techniques described in KZC 95.32 to ensure the protection of significant existing vegetation and soil.



3. General. The applicant shall provide the replacement landscaping specified in subsection (2) of this section in any area of the subject property that:
  - a. Is not covered with a building, vehicle circulation area or other improvement; and
  - b. Is not in an area to be planted with required landscaping; and
  - c. Is not committed to and being used for some specific purpose.
4. Standards. The applicant shall provide the following at a minimum:
  - a. Living plant material which will cover 80 percent of the area to be landscaped within two (2) years. If the material to be used does not spread over time, the applicant shall re-plant the entire area involved immediately. Any area that will not be covered with living plant material must be covered with nonliving groundcover, i.e.: mulch. Preference is given to using native plant species. See Kirkland Native Tree/Plant Lists.
  - b. One (1) tree for each 1,000 square feet of area to be landscaped. At the time of planting, deciduous trees must be at least two (2) inches in caliper and coniferous trees must be at least five (5) feet in height.
  - c. If a development requires approval through Process I, IIA or IIB as described in Chapters 145, 150 and 152 KZC, respectively, the City may require additional vegetation to be planted along a building facade if:
    - 1) The building facade is more than 25 feet high or more than 50 feet long; or
    - 2) Additional landscaping is necessary to provide a visual break in the facade.
  - d. In RHBD varieties of rose shrubs or ground cover along with other plant materials shall be included in the on-site landscaping.
  - e. If development is subject to Design Review as described in Chapter 142 KZC, the City will review plant choice and specific plant location as part of the Design Review approval. The City may also require or permit modification to the required plant size as part of Design Review approval.
5. Landscape Plan Required. In addition to the Tree Retention Plan required pursuant to KZC 95.30, application materials shall clearly depict the quantity, location, species, and size of plant materials proposed to comply with the requirements of this section and shall address the plant installation and maintenance requirements set forth in KZC 95.50 and 95.51. Plant materials shall be identified with both their scientific and common names. Any required irrigation system must also be shown.

#### 95.42 Land Use Buffer Requirements

The applicant shall comply with the provisions specified in the following chart and with all other applicable provisions of this chapter. Land use buffer requirements may apply to the subject property, depending on what permitted use exists on the adjoining property or, if no permitted use exists, depending on the zone that the adjoining property is in.

LANDSCAPING CATEGORY	ADJOINING PROPERTY	*Public park or low density residential use or if no permitted use exists on the adjoining property then a low density zone.	Medium or high density residential use or if no permitted use exists on the adjoining property then a medium density or high density zone.	Institutional or office use or if no permitted use exists on the adjoining property then an institutional or office zone.	A commercial use or an industrial use or if no permitted use exists on the adjoining property then a commercial or industrial zone.
A		Must comply with subsection (1) (Buffering Standard 1)	Must comply with subsection (1) (Buffering Standard 1)	Must comply with subsection (2) (Buffering Standard 2)	
B		Must comply with subsection (1) (Buffering Standard 1)	Must comply with subsection (1) (Buffering Standard 1)		
C		Must comply with subsection (1) (Buffering Standard 1)	Must comply with subsection (2) (Buffering Standard 2)		

LANDSCAPING CATEGORY	ADJOINING PROPERTY	*Public park or low density residential use or if no permitted use exists on the adjoining property then a low density zone.	Medium or high density residential use or if no permitted use exists on the adjoining property then a medium density or high density zone.	Institutional or office use or if no permitted use exists on the adjoining property then an institutional or office zone.	A commercial use or an industrial use or if no permitted use exists on the adjoining property then a commercial or industrial zone.
D		Must comply with subsection (2) (Buffering Standard 2)			
E					
<b>Footnotes:</b>		*If the adjoining property is zoned Central Business District, Juanita Business District, North Rose Hill Business District, Rose Hill Business District, Finn Hill Neighborhood Center, Houghton/Everest Neighborhood Center, Business District Core or is located in TL 5, this section KZC 95.42 does not apply.			

This chart establishes which buffering standard applies in a particular case. The following subsections establish the specific requirement for each standard:

1. For standard 1, the applicant shall provide a 15-foot-wide landscaped strip with a 6-foot-high solid screening fence or wall. Except for public utilities, the fence or wall must be placed on the outside edge of the land use buffer or on the property line when adjacent to private property. For public utilities, the fence or wall may be placed either on the outside or inside edge of the landscaping strip. A fence or wall is not required when the land use buffer is adjacent and parallel to a public right-of-way that is improved for vehicular use. See KZC 115.40 for additional fence standards. The land use buffer must be planted as follows:

- a. Trees planted at the rate of one (1) tree per 20 linear feet of land use buffer, with deciduous trees of two and one-half (2-1/2) inch caliper, minimum, and/or coniferous trees eight (8) feet in height, minimum. At least 70 percent of trees shall be evergreen. The trees shall be distributed evenly throughout the buffer, spaced no more than 20 feet apart on center.
- b. Large shrubs or a mix of shrubs planted to attain coverage of at least 60 percent of the land use buffer area within two (2) years, planted at the following sizes and spacing, depending on type:
  - 1) Low shrub – (mature size under three (3) feet tall), 1- or 2-gallon pot or balled and burlapped equivalent;
  - 2) Medium shrub – (mature size from three (3) to six (6) feet tall), 2- or 3-gallon pot or balled and burlapped equivalent;
  - 3) Large shrub – (mature size over six (6) feet tall), 5-gallon pot or balled and burlapped equivalent.
- c. Living ground covers planted from either 4-inch pot with 12-inch spacing or 1-gallon pot with 18-inch spacing to cover within two (2) years 60 percent of the land use buffer not needed for viability of the shrubs or trees.

2. For standard 2, the applicant shall provide a 5-foot-wide landscaped strip with a 6-foot-high solid screening fence or wall. Except for public utilities, the fence or wall must be placed on the outside edge of the land use buffer or on the property line when adjacent to private property. For public utilities, the fence or wall may be placed either on the outside or inside edge of the landscaping strip. A fence or wall is not required when the land use buffer is adjacent and parallel to a public right-of-way that is improved for vehicular use. See KZC 115.40 for additional fence standards. The landscaped strip must be planted as follows:

- a. One (1) row of trees planted no more than 10 feet apart on center along the entire length of the buffer, with deciduous trees of 2-inch caliper, minimum, and/or coniferous trees at least six (6) feet in height, minimum. The spacing may be increased to 15 feet to accommodate larger species and avoid long-term crowding. At least 50 percent of the required trees shall be evergreen.
- b. Living ground covers planted from either 4-inch pot with 12-inch spacing or 1-gallon pot with 18-inch spacing to cover within two (2) years 60 percent of the land use buffer not needed for viability of the trees.

3. Plant Standards. All plant materials used shall meet the most recent American Association of Nurserymen Standards for nursery stock: ANSI Z60.1.

4. Location of the Land Use Buffer. The applicant shall provide the required buffer along the entire common border between the subject property and the adjoining property.
5. Multiple Buffering Requirement. If the subject property borders more than one (1) adjoining property along the same property line, the applicant shall provide a gradual transition between different land use buffers. This transition must occur totally within the area which has the less stringent buffering requirement. The specific design of the transition must be approved by the City.
6. Adjoining Property Containing Several Uses. If the adjoining property contains several permitted uses, the applicant may provide the least stringent land use buffer required for any of these uses.
7. Subject Property Containing Several Uses. If the subject property contains more than one (1) use, the applicant shall comply with the land use buffering requirement that pertains to the use within the most stringent landscaping category that abuts the property to be buffered.
8. Subject Property Containing School. If the subject property is occupied by a school, land use buffers are not required along property lines adjacent to a street.
9. Encroachment into Land Use Buffer. Typical incidental extensions of structures such as chimneys, bay windows, greenhouse windows, cornices, eaves, awnings, and canopies may be permitted in land use buffers as set forth in KZC 115.115(3)(d); provided, that:
  - a. Buffer planting standards are met; and
  - b. Required plantings will be able to attain full size and form typical to their species.

#### **95.43 Outdoor Use, Activity, and Storage**

Outdoor use, activity, and storage (KZC 115.105(2)) must comply with required land use buffers for the primary use, except that the following outdoor uses and activities, when located in commercial or industrial zones, are exempt from KZC 115.105(2)(c)(1) and (2)(c)(2) as stated below:

1. That portion of an outdoor use, activity, or storage area which abuts another outdoor use, activity, or storage area which is located on property zoned for commercial or industrial use.
2. Outdoor use, activity, and storage areas which are located adjacent to a fence or structure which is a minimum of six (6) feet above finished grade, and do not extend outward from the fence or structure more than five (5) feet; provided, that the total horizontal dimensions of these areas shall not exceed 50 percent of the length of the facade or fence (see Plate 11).
3. If there is an improved path or sidewalk in front of the outdoor storage area, the outdoor use, activity or storage area may extend beyond five (5) feet if a clearly defined walking path at least three (3) feet in width is maintained and there is adequate pedestrian access to and from the primary use. The total horizontal dimension of these areas shall not exceed 50 percent of the length of the facade of the structure or fence (see Plate 11).
4. Outdoor dining areas.
5. That portion of an outdoor display of vehicles for sale or lease which is adjacent to a public right-of-way that is improved for vehicular use; provided, that it meets the buffering standards for driving and parking areas in KZC 95.45(1); and provided further, that the exemptions of KZC 95.45(2) do not apply unless it is fully enclosed within or under a building, or is on top of a building and is at least one (1) story above finished grade.
6. Outdoor Christmas tree lots and fireworks stands if these uses will not exceed 30 days, and outdoor amusement rides, carnivals and circuses, and parking lot sales which are ancillary to the indoor sale of the same goods and services, if these uses will not exceed seven (7) days.

#### **95.44 Internal Parking Lot Landscaping Requirements**

The following internal parking lot landscape standards apply to each parking lot or portion thereof containing more than eight (8) parking stalls.

1. The parking lot must contain 25 square feet of landscaped area per parking stall planted as follows:
  - a. The applicant shall arrange the required landscaping throughout the parking lot to provide landscape islands or peninsulas to separate groups of parking spaces (generally every eight (8) stalls) from one another and each row of spaces from any adjacent driveway that runs perpendicular to the row. This island or peninsula must be surrounded

by a 6-inch-high vertical curb and be of similar dimensions as the adjacent parking stalls. Gaps in curbs are allowed for stormwater runoff to enter landscape island.

b. Landscaping shall be installed pursuant to the following standards:

- 1) At least one (1) deciduous tree, two (2) inches in caliper, or a coniferous tree five (5) feet in height.
- 2) Groundcover shall be selected and planted to achieve 60 percent coverage within two (2) years.
- 3) Natural drainage landscapes (such as rain gardens, bio-infiltration swales and bioretention planters) are allowed when designed in compliance with the stormwater design manual adopted in KMC 15.52.060. Internal parking lot landscaping requirements for trees still apply. Refer to Public Works Pre-Approved Plans.

c. Exception. The requirements of this subsection do not apply to any area that is fully enclosed within or under a building.

2. Rooftop Parking Landscaping. For a driving or parking area on the top level of a structure that is not within the CBD zone or within any zone that requires design regulation compliance, one (1) planter that is 30 inches deep and five (5) feet square must be provided for every eight (8) stalls on the top level of the structure. Each planter must contain a small tree or large shrub suited to the size of the container and the specific site conditions, including desiccating winds, and is clustered with other planters near driving ramps or stairways to maximize visual effect.

3. If development is subject to Design Review as described in Chapter 142 KZC, the City will review the parking area design, plant choice and specific plant location as part of the Design Review approval. The City may also require or permit modification to the required landscaping and design of the parking area as part of Design Review approval.

#### **95.45 Perimeter Landscape Buffering for Driving and Parking Areas**

1. Perimeter Buffering – General. Except as specified in subsection (2) of this section, the applicant shall buffer all parking areas and driveways from abutting rights-of-way and from adjacent property with a 5-foot-wide strip along the perimeter of the parking areas and driveways planted as follows (see Figure 95.45.A):

- a. One (1) row of trees, two (2) inches in caliper and planted 30 feet on center along the entire length of the strip.
- b. Living groundcover planted to attain coverage of at least 60 percent of the strip area within two (2) years.
- c. Natural drainage landscapes (such as rain gardens, bio-infiltration swales and bioretention planters) are allowed when designed in compliance with the stormwater design manual adopted in KMC 15.52.060. Perimeter landscape buffering requirements for trees in driving and parking areas still apply. Refer to Public Works Pre-Approved Plans.

2. Exception. The requirements of this section do not apply to any parking area that:

- a. Is fully enclosed within or under a building; or
- b. Is on top of a building and is at least one (1) story above finished grade; or
- c. Serves detached dwelling units exclusively; or
- d. Is within any zone that requires design regulation compliance. See below for Design District requirements.

3. Design Districts. If subject to Design Review, each side of a parking lot that abuts a street, through-block pathway or public park must be screened from that street, through-block pathway or public park by using one (1) or a combination of the following methods (see Figures 95.45.A, B, and C):

- a. By providing a landscape strip at least five (5) feet wide planted consistent with subsection (1) of this section, or in combination with the following. In the RHBD Regional Center (see KZC Figure 92.05.A) a 10-foot perimeter landscape strip along NE 85th Street is required planted consistent with subsection (1) of this section.
- b. The hedge or wall must extend at least two (2) feet, six (6) inches, and not more than three (3) feet above the ground directly below it.
- c. The wall may be constructed of masonry or concrete, if consistent with the provisions of KZC 92.35(1)(g), in building material, color and detail, or of wood if the design and materials match the building on the subject property.
- d. In JBD zones:
  - 1) If the street is a pedestrian-oriented street, the wall may also include a continuous trellis or grillwork, at least five (5) feet in height above the ground, placed on top of or in front of the wall and planted with climbing vines. The trellis or grillwork may be constructed of masonry, steel, cast iron and/or wood.

- 2) If the wall abuts a pedestrian-oriented street, the requirements of this subsection may be fulfilled by providing pedestrian weather protection along at least 80 percent of the frontage of the subject property.
- e. If development is subject to Design Review as described in Chapter 142 KZC, the City will review plant choice and specific plant location as part of the Design Review approval. The City may also require or permit modification to the required plant size as part of Design Review approval.
4. Overlapping Requirements. If buffering is required in KZC 95.42, Land Use Buffering Standards, and by this subsection, the applicant shall utilize the more stringent buffering requirement.

#### Perimeter Parking Lot Landscaping

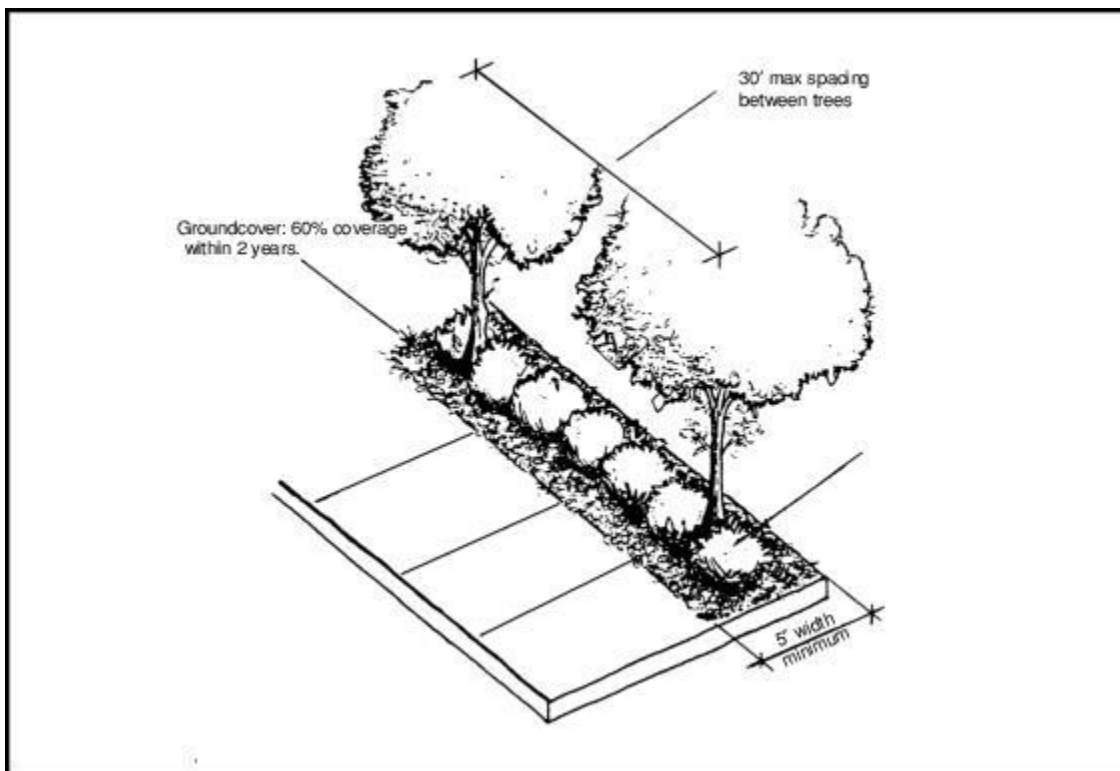


FIGURE 95.45.A

#### Perimeter Parking – Examples of Various Screen Wall Designs



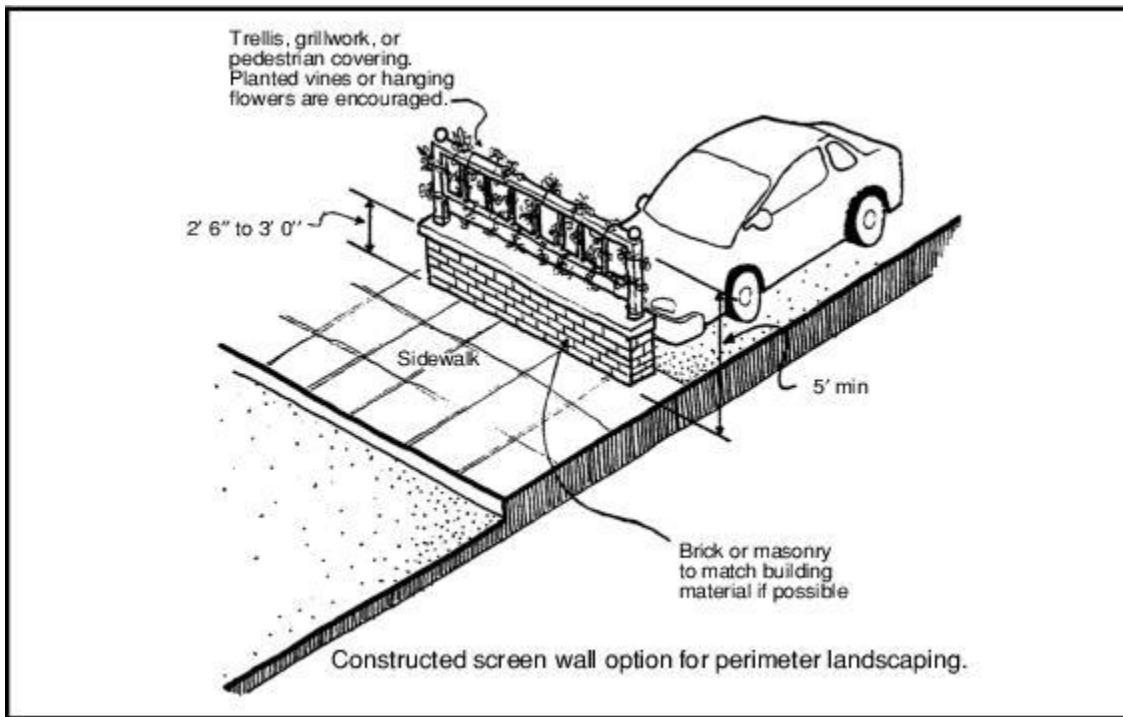


FIGURE 95.45.B

### Perimeter Parking – Examples of Various Screen Wall Designs

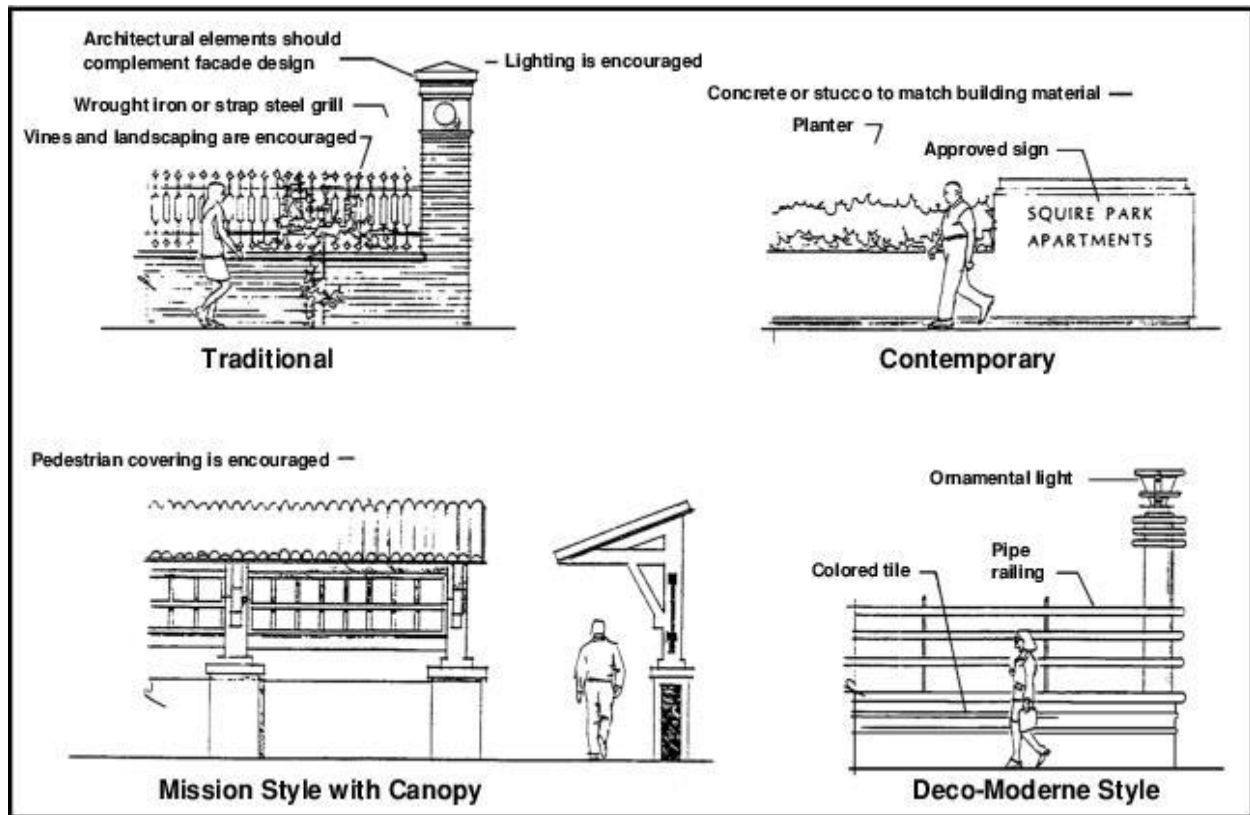


FIGURE 95.45.C

## **95.46 Modifications to Required Landscaping and Buffer Standards**

1. Modification to Land Use Buffer Requirements. The applicant may request a modification of the requirements of the buffering standards in KZC 95.42. The Planning Official may approve a modification if:
  - a. The owner of the adjoining property agrees to this in writing; and
  - b. The existing topography or other characteristics of the subject property or the adjoining property, or the distance of development from the neighboring property decreases or eliminates the need for buffering; or
  - c. The modification will be more beneficial to the adjoining property than the required buffer by causing less impairment of view or sunlight; or
  - d. The Planning Official determines that it is reasonable to anticipate that the adjoining property will be redeveloped in the foreseeable future to a use that would require no, or a less intensive, buffer; or
  - e. The location of pre-existing improvements on the adjoining site eliminates the need or benefit of the required landscape buffer.
2. Modifications to General Landscaping Requirements.
  - a. Authority to Grant and Duration. If the proposed development of the subject property requires approval through Design Review or Process I, IIA, or IIB, described in Chapters 142, 145, 150, and 152 KZC, respectively, a request for a modification will be considered as part of that process under the provisions of this section. The City must find that the applicant meets the applicable criteria listed in subsections (2)(b) and (2)(c) of this section. If granted under Design Review or Process I, IIA, or IIB, the modification is binding on the City for all development permits issued for that development under the building code within five (5) years of the granting of the modification.

If the above does not apply, the Planning Official may grant a modification in writing under the provisions of this section.
  - b. Internal Parking Lot Landscaping Modifications. For a modification to the internal parking lot landscaping requirements in KZC 95.44, the landscape requirements may be modified if:
    - 1) The modification will produce a landscaping design in the parking area comparable or superior to that which would result from adherence to the adopted standard; or
    - 2) The modification will result in increased retention of significant existing vegetation; or
    - 3) The purpose of the modification is to accommodate low impact development techniques as approved by the Planning Official.
  - c. Perimeter parking lot and driveway landscaping. For a modification to the perimeter landscaping for parking lots and driveways, the buffering requirements for parking areas and driveways may be modified if:
    - 1) The existing topography of or adjacent to the subject property decreases or eliminates the need for visual screening; or
    - 2) The modification will be of more benefit to the adjoining property by causing less impairment of view or sunlight; or
    - 3) The modification will provide a visual screen that is comparable or superior to the buffer required by KZC 95.45; or
    - 4) The modification eliminates the portion of the buffer that would divide a shared parking area serving two (2) or more adjacent uses but provides the buffer around the perimeter of the shared parking area.

## **95.47 Nonconforming Landscaping and Buffers**

1. The landscaping requirements of KZC 95.40, Required Landscaping Based on Zoning District, KZC 95.43 Outdoor Use, Activity and Storage, KZC 95.44, Internal Parking Lot Landscaping, and KZC 95.45, Perimeter Landscape Buffering for Driving and Parking Areas, must be brought into conformance as much as is feasible, based on available land area, in either of the following situations:
  - a. An increase of at least 10 percent in gross floor area of any structure; or
  - b. An alteration to any structure, the cost of which exceeds 50 percent of the replacement cost of the structure.

2. Land use buffers must be brought into conformance with KZC 95.42 in either of the following situations:
  - a. An increase in gross floor area of any structure (the requirement to provide conforming buffers applies only where new gross floor area impacts adjoining property); or
  - b. A change in use on the subject property and the new use requires larger buffers than the former use.

#### **95.50 Installation Standards for Required Plantings**

All required trees, landscaping and soil shall be installed according to sound horticultural practices in a manner designed to encourage quick establishment and healthy plant growth. All required landscaping shall be installed in the ground and not in above-ground containers, except for landscaping required on the top floor of a structure.

When an applicant proposes to locate a subterranean structure under required landscaping that appears to be at grade, the applicant will: (1) provide site-specific documentation prepared by a qualified expert to establish that the design will adequately support the mature size of specified trees and other vegetation species; and (2) enter into an agreement with the City, in a form acceptable to the City Attorney, indemnifying the City from any damage resulting from development activity on the subject property which is related to the physical condition of the property. The applicant shall record this agreement with the King County Recorder's Office.

1. Compliance. It is the applicant's responsibility to show that the proposed landscaping complies with the regulations of this chapter.
2. Timing. All landscaping shall be installed prior to the issuance of a certificate of occupancy, except that the installation of any required tree or landscaping may be deferred during the summer months to the next planting season, but never for more than six (6) months. Trees should be planted in the fall, winter or early spring, between October and April, or must be irrigated.

Deferred installation shall be secured with a performance bond pursuant to Chapter 175 KZC prior to the issuance of a certificate of occupancy.

3. Grading. Berms shall not exceed a slope of two (2) horizontal feet to one (1) vertical foot (2:1).
4. Soil Specifications. Soils in planting areas shall have soil quality equivalent to Washington State Department of Ecology BMP T5.13. The soil quality in any landscape area shall comply with the soil quality requirements of the Public Works Pre-Approved Plans. See subsection (9) of this section for mulch requirements.
5. Plant Selection.
  - a. Plant selection shall be consistent with the appropriate Kirkland Plant Lists, which are shown on the Planning Department webpage and available in the Planning and Building Department. Species diversity is encouraged by planting species other than those listed, with Planning Official approval.
  - b. Plants shall be selected and sited to produce a hardy and drought-resistant landscape area. Selection shall consider soil type and depth, the amount of maintenance required, spacing, exposure to sun and wind, the slope and contours of the site, and compatibility with existing native vegetation preserved on the site. Preservation of existing vegetation is strongly encouraged.
  - c. Plants listed in the Kirkland Prohibited Plant List shall not be planted in any required landscape areas. Additionally, there are other plants that may not be used if identified in the Kirkland Plant List as potentially damaging to sidewalks, roads, underground utilities, drainage improvements, foundations, or when not provided with enough growing space.
  - d. All plants shall conform to American Association of Nurserymen (AAN) grades and standards as published in the "American Standard for Nursery Stock" manual.
  - e. Plants shall meet the minimum size standards established in other sections of the KZC.
  - f. Multiple-stemmed trees may be permitted as an option to single-stemmed trees for required landscaping provided that such multiple-stemmed trees are at least 10 feet in height and that they are approved by the Planning Official prior to installation.

6. Plant Location. Newly-planted replacement trees should generally be planted at least 3 feet away from property lines. Planting large trees under/within proximity to overhead utilities shall be avoided. Newly-planted replacement trees may be checked for the approved locations as a final inspection procedure on development sites. Replacement trees must be planted in a manner that allows the tree species to mature to its full height and width. Trees shall be located with the appropriate spacing from buildings and other trees, soil volume should not be restricted for the mature size of the tree and soil should be amended in accordance with the storm water code. Trees shall be installed so that the root flare is at or



slightly above the finished ground elevation in order to promote a healthy root structure and identify any girdling roots at the time of planting.

7. Fertilization. All fertilizer applications to turf or trees and shrubs shall follow Washington State University, National Arborist Association or other accepted agronomic or horticultural standards. Fertilizer may include soil drenches to increase fungal biota and chemical root growth stimulators.

8. Irrigation. The intent of this standard is to ensure that plants will survive the critical establishment period when they are most vulnerable due to lack of watering. All required plantings must provide an irrigation system, using either Option 1, 2, or 3 or a combination of those options. Selected irrigation option shall be specified on the Landscape or Tree Plan. For each option irrigation shall be designed to conserve water by using the best practical management techniques available. These techniques may include, but not be limited to: drip irrigation to minimize evaporation loss, moisture sensors to prevent irrigation during rainy periods, automatic controllers to ensure proper duration of watering, sprinkler head selection and spacing designed to minimize overspray, and separate zones for turf and shrubs and for full sun exposure and shady areas to meet watering needs of different sections of the landscape.

Exceptions, as approved by the Planning Official, to the irrigation requirement may be approved xeriscape (i.e., low water usage plantings), plantings approved for low impact development techniques, established indigenous plant material, or landscapes where natural appearance is acceptable or desirable to the City. However, those exceptions will require temporary irrigation (Option 2 and/or 3) until established.

a. Option 1. A permanent built-in irrigation system with an automatic controller designed and certified by a licensed landscape architect as part of the landscape plan.

b. Option 2. An irrigation system designed and certified by a licensed landscape architect as part of the landscape plan, which provides sufficient water to ensure that the plants will become established. The system does not have to be permanent if the plants chosen can survive adequately on their own, once established.

c. Option 3. Irrigation by hand, which includes the use of water bags. If the applicant chooses this option, an inspection will be required one (1) year after final inspection to ensure that the landscaping has become established.

9. Drainage. All landscapes shall have adequate drainage, either through natural percolation or through an installed drainage system. A percolation rate of one-half (1/2) inch of water per hour is acceptable.

10. Mulch.

a. Required plantings, except turf or areas of established ground cover, shall be covered with two (2) inches or more of organic mulch to minimize evaporation and runoff. Mulch shall consist of materials such as yard waste, sawdust, and/or manure that are fully composted.

b. All mulches used in planter beds shall be kept at least six (6) inches away from the trunks of shrubs and trees.

11. Protection. All required landscaped areas, particularly trees and shrubs, must be protected from potential damage by adjacent uses and development, including parking and storage areas. Protective devices such as bollards, wheel stops, trunk guards, root guards, etc., may be required in some situations.

12. Final Inspection. Requirements shall be completed prior to final inspection.

### **95.51 Tree and Landscape Maintenance Requirements**

The following maintenance requirements apply to all trees, including street trees, and other vegetation required to be planted or preserved by the City:

1. Responsibility for Regular Maintenance. Required trees and vegetation, fences, walls, and other landscape elements shall be considered as elements of the project in the same manner as parking, building materials, and other site details. The applicant, landowner, or successors in interest shall be responsible for the regular maintenance of required landscaping elements. It is also the responsibility of the property owner to maintain street trees abutting their property pursuant to KZC 95.21.

2. Maintenance Duration. Maintenance shall be ensured in the following manner except as set forth in subsections (3), (4) and (5) of this section:

a. Commercial, Industrial and Multifamily Development. All required landscaping shall be maintained throughout the life of the development. Plants that die must be replaced in kind..

b. Single Family Residential Development. Any existing tree or other existing vegetation designated for preservation in a tree retention plan shall be maintained for a period of five (5) years following issuance of the certificate of

occupancy for the individual lot or development. After five (5) years, all trees on the property are subject to KZC 95.23 unless:

- 1) The tree and associated vegetation are in a grove that is protected pursuant to subsection (3) of this section; or
- 2) The tree or vegetation is considered to be a public benefit related to approval of a Planned Unit Development; or
- 3) The tree or vegetation was retained to partially or fully meet requirements of KZC 95.40 through 95.45, Required Landscaping and Zoning.

3. Maintenance of Preserved Grove. Any applicant who has a grove of trees identified for preservation on an approved Tree Retention Plan pursuant to KZC 95.30(2) shall provide prior to occupancy the legal instrument acceptable to the City to ensure preservation of the grove and associated vegetation in perpetuity, except that the agreement may be extinguished if the Planning Official determines that preservation is no longer appropriate.

4. Maintenance in Holmes Point Overlay Zone. Vegetation in designated Protected Natural Areas in the Holmes Point Overlay Zone is to be protected in perpetuity pursuant to KZC 70.15(8)(a). Regulated trees in the remainder of the lot shall be protected in perpetuity pursuant to KZC 70.15(8)(b).

5. Nonnative Invasive and Noxious Plants. It is the responsibility of the property owner to remove nonnative invasive plants and noxious plants per the City's Prohibited Plant List, King County and Washington Weed Agencies from the vicinity of any tree or other vegetation that the City has required to be planted or protected. Removal must be performed in a manner that is not injurious to required trees and vegetation.

6. Landscape Plans and Utility Plans. Landscape plans and utility plans shall be coordinated. In general, the placement of trees and large shrubs should adjust to the location of required utility routes both above and below ground. Location of plants shall be based on the plant's mature size both above and below ground. See the Kirkland Plant List for additional standards.

## **95.52 Prohibited Vegetation**

Plants listed in the Kirkland Prohibited Plant List shall not be planted in the City or required to be retained.

For landscaping not required under this chapter, this prohibition shall become effective on February 14, 2008. The City may require removal of prohibited vegetation if installed after this date. Residents and property owners are encouraged to remove pre-existing prohibited vegetation whenever practicable.

## **95.55 Enforcement and Penalties**

Upon determination that 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. Notwithstanding the provisions of Chapter 1.12.100 KMC, 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 damaged by Topping must be replaced pursuant to the standards in Chapter 1.12 KMC.

2. Restoration. For trees greater than six (6) inches DBH that have been damaged by Topping, property owners must have a Qualified Professional develop and implement a restoration pruning plan.

## **95.57 City Forestry Account**

1. Funding Sources. All civil penalties received under this chapter and all money received pursuant to KZC 95.34.6 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 95.55 or settlements in lieu of penalties;
- b. Agreed upon payment in lieu of planting replacement trees under KZC 95.34.6;
- 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 wooded areas within the City;
  - b. Planting and maintaining trees within the City;
  - c. Establishment of a holding public tree nursery;
  - d. Urban forestry education;
  - e. Implementation of a tree canopy monitoring program; or
  - f. Other purposes relating to trees as determined by the City Council.



**Amendments to Kirkland Zoning Code Chapter 95**  
**Effects of Proposed Code Changes - Compared to Current Code**

Attachment 4

No change, tree retention or tree removal    
 Greater tree retention on development sites, less homeowner tree removals    
 Less tree retention on development sites, greater homeowner tree removals    
 Unknown or untested

	PROPOSED CODE	STAKE-HOLDER <sup>1</sup>	WHAT WILL THE PROPOSED CODE DO?	DOES THE CURRENT CODE ADDRESS THE ISSUE?	CANOPY EFFECT <sup>2</sup>	ANTICIPATED RESULT <sup>3</sup>
Development Requirements	<i>Tier 1 - Landmark tree</i>	✓	Protect 30" dbh (trunk diameter) trees in good-excellent health	Yes; retains 30" dbh trees where practicable		o No change in tree retention on typical sites + Retention may be improved on clustered short plats/subdivisions & large lots
	<i>Tier 1- Grove</i>	✓	Redefine groves by quantity and size: 3 or more trees with one 30" dbh minimum tree, or 5 or more trees with one 24" dbh minimum tree	Yes; without size or number limits		- Grove size requirements will result in retaining largest/oldest tree stock and replanted new trees, rather than retaining evenly-diverse tree ages/sizes.
	<i>Tier 2 trees</i>	✓	Retain trees in good-excellent condition located in setbacks	Yes; using "high retention value" trees in setbacks definition		+ Greater code clarity by defining the focus of retention efforts - Slightly less tree retention without "Moderate Retention Value" tree protection
	<i>Tree condition ratings</i>	✓	Define trees' health/structure, retain "good-excellent" trees only	No; current definitions are considered too subjective		+ Greater code clarity with specific tree condition ratings - Significantly less tree retention without "Fair" tree protection
	<i>Building envelope dimensions</i>	✓	Guarantees development rights using specific building envelopes: Tier 1: 40'w x 40'd with contiguous/shifting 20'w x 20'd Tier 2: 50'w x 50'd footprint, or Building facades greater than 50'w: the maximum footprint shall be less 10% a distance between side setbacks, etc.	Yes; but simply focuses on retaining trees in setbacks		+ Greater predictability for developers - Increased code complexity for all - Increased code text - Increased difficulty at development feasibility phase - Increased design/review time applying 2 building envelope dimension standards
	<i>Extent of tree retention requirements</i>	✓	Specify requirements for: Site plan alterations (building design and configuration on lot) Tree retention/protection methods	No; current "retain if feasible" or "to the maximum extent possible" language is considered too subjective		+ Greater predictability for developers + Greater code clarity
	<i>Code flexibility elsewhere</i>	✓	Allow variations to other codes/standards to retain trees	No; current "retain if feasible" or "to the maximum extent possible" language is considered too subjective		+ Greater predictability for developers + Greater code clarity
	<i>Retention &amp; replanting priorities</i>	----	Clarify priority of requirements: 1-retain, 2-plant on site, 3-plant offsite, 4-payment in lieu of planting	Yes		+ Greater predictability for developers + Greater code clarity
	<i>Integrated Development Plans (IDP)- Tree retention decisions upfront with shortplat &amp; subdivision design</i>	FHNA	Eliminate phased development review process Limit tree removals that occur at various permit stages Streamline modification section of code Require Planning Director decision for modifications	Yes; however, IDP is optional and modifications require Hearing Examiner decision		+ Greater predictability for developers + Greater awareness of tree protection and removals upfront for all + More information available to neighbors + Greater successful tree retention with early planning
	<i>No credits for arborvitae</i>	✓	Prevent excessive use of arborvitae planted on development sites in response to field study findings	No; arborvitae is currently eligible for tree density credits when planted as replacement trees		+ Supplemental tree planting that best meets code intent
Homeowner Tree Removals	<i>No landmark tree removal</i>	FHNA	Prohibit removal of 30" dbh trees unless hazard/nuisance (permit)	No		+ Protects iconic landmark trees before and after development
	<i>Tree removals per lot size</i>	----	Allow without a permit: 2 removals for lots <10,000 sq ft 4 removals for lots 10,000-20,000 sq ft 6 removals for lots >20,000 sq ft >6 removals with Forest Management Plan for lots >35K NEW: require same number of remaining trees as allowed for removal as a trigger for replacement trees	Yes, but currently limited to 2 tree removals every 12 months on any size property. Replacements are triggered with the removal of the last 2 trees on the property.		+ More equitable across different property sizes - Greater tree removal at one time on larger properties
	<i>Prevent preemptive tree removals</i>	----	Cannot submit development permits for 12 months following tree removal Prohibit girdling, define tree removal by "felling"	No		+ Less preemptive removals + Equitable code compliance + Prevention of hazard trees
	<i>Hedge removal</i>	----	Allow tree removal for overgrown hedges if the number of trees is greater than allotted per property size Replacements required.	No		- Greater number of allowed tree removals at one time
	<i>Authority to order removal of severely infected trees</i>	----	Lessen massive tree failure from disease/pest outbreak	No		n/a - preventative (ie: Dutch Elm/Emerald Ash Borer)

○ No change, tree retention or tree removal

↑ Greater tree retention on development sites, less homeowner tree removals

↓ Less tree retention on development sites, greater homeowner tree removals

? Unknown or untested

Prior Discussion Topics

APPROACH	STAKEHOLDER <sup>1</sup>	WHAT WOULD THIS APPROACH DO?	DOES THE CURRENT CODE ADDRESS THE ISSUE?	CANOPY EFFECT <sup>2</sup>	ANTICIPATED RESULT <sup>3</sup>
<i>Establish a 50 credit per acre quota</i>	MBAKS	Allow tree removal at applicants' discretion upon reaching a 50 credit per acre quota	No; retain to meet or exceed 30 credits per acre with trees in setbacks (areas with greatest success for retention)	↓	- Significantly less trees and density credits retained
<i>Increase planting requirements</i>	✓	Increase planting standard from 30 to 50 tree credits per acre (9 new trees on an average 7,500 square foot lot)	Yes; current standard is 30 credits per acre (5 new trees on 7,500 square foot lot)	↑	+ Long-term gains in canopy cover <sup>4</sup> may be achieved, however overcrowding and poorly-located new trees likely result in nuisance/hazard trees within 10 years
<i>Require native/conifer tree species</i>	FHNA	Require native trees, particularly conifers be planted to meet tree credits	Yes; through an incentive (not requirement) that awards 1.5x tree credits to retain native conifers	?	o Greater stormwater benefits are achieved with the retention of existing conifers versus planting new trees (regardless of type or species) o Plant with species diversity objectives, (avoid invasive vegetation)
<i>No protection for Tier 1 groves</i>	MBAKS	Eliminate grove protection covenant altogether	Yes; in addition, staff has accommodated MBAKS with Modest code changes to the grove easement Redefined legal description (2017) Replaced easement with covenant as legal instrument	↓	- Tier 1 Landmark/Grove trees not protected if grove covenant is eliminated - Subsequent property owners will have no awareness of covenant
<i>Public tree management</i>	✓	Identify and implement efforts to increase canopy cover on municipal property (parks and right-of-way)	No; Kirkland Zoning Codes regulate land use and development on private property	↑	+ Long-term gains in canopy cover <sup>4</sup> can be achieved by maintaining, protecting and planting public trees per the 2018 Canopy Assessment & Urban Forest Strategic Management Plan
<i>Increase tree protection enforcement and inspections</i>	FHNA	Reduce on-site incidents that result in tree/root damage	Yes; however, project sequencing could be addressed	?	o Could increase enforcement and inspections when resources are available o Could increase penalty fines, especially with repeated offenses
<i>Tree removal conflicts with solar energy systems</i>	----	Allow sufficient tree removal to accommodate installation of renewable energy systems and other green building methods	Yes; with an increased tree removal allowance and provision for greater tree removal with development	○	o Negligible effect – currently applies to less than 1% residential properties
<i>Tree removal conflicts with affordable housing provisions</i>	----	Ensure code changes to increase affordable housing stock are compatible with tree code requirements	Yes; with current housing types	○	o May change if zoning and development standards allow greater tree removal
?					

<sup>1</sup>STAKEHOLDER - code provisions that a stakeholder group collaboratively developed/have reached consensus agreement on. The stakeholder group consists of self-appointed members from Master Builders of King and Snohomish Counties, Finn Hill Neighborhood Alliance and others. Individual groups' support is noted where applicable.

<sup>2</sup>CANOPY EFFECT - as observed in the analysis of 22 recently-issued Single Family development permits in Attachment 4 using the current tree code as a baseline for comparison.

<sup>3</sup>ANTICIPATED RESULT – (o) No or negligible, (+) Positive, (-) Negative change based on the analysis in Attachment 4.

<sup>4</sup>Long-term canopy gains refer to tree growth in approximately 20 years; however, canopy cover in Kirkland is analyzed in 7 to 8-year cycles.

Revised October 28, 2019

As applied to development:

Application of this section applies to new single family-residential; residential subdivisions and short subdivisions (including cottage and carriage housing); mixed-use and multifamily developments (including townhomes, duplex, triplex and quadraplex); commercial and industrial developments, municipal and institutional developments; and utility developments. ***(These code amendments only revise, as does staff's draft, language for SFR. Additional language will be necessary to shape and update requirements for commercial, industrial, etc)***

### **Definitions**

- **Significant Tree:** A tree that is at least six (6) inches dbh in good to excellent structure and condition that is not listed on the Prohibited Plant list, as defined by current and accepted arborist levels and standards. ***(Do the residents of Kirkland really want "regulated trees" in their yards? Why can't they be termed Significant trees? And if staff is changing the term here from significant to regulated because of some definitional changes, why can't grove change to group so there's no confusion grove could potentially be changing in scope and definition?)***
- **Landmark Tree:** A Landmark tree is a native tree that because of their age, size and condition are recognized as having exceptional value adding to the character the community. A Landmark Tree is a Significant tree with a minimum dbh of 30-inches. A Landmark tree is not a hazard or nuisance tree and has the likelihood of surviving at least 10 additional years.
- **Groups:** Groups: three (3) or more regulated trees with overlapping or touching crowns, one of which is a minimum 30-inch dbh, or a group of five (5) or more regulated trees, one of which is a minimum 24-inch dbh.

### **Tier 1- Landmark Trees and Groups**

Landmark trees are native trees that because of their age, size and condition are recognized as having exceptional value adding to the character of the community.

- A. Before being designated a Landmark, the tree must meet all the following criteria:
  1. The tree is 30-inches dbh or larger; and
  2. The City arborist determines the tree to be in good-excellent health and structure with a likelihood of surviving more than 10 years based on current accepted arborist standards; and
  3. The tree is not a hazard tree as defined by KZC XX.XX.XX; and
  4. The tree is not a nuisance tree as defined by KZC XX.XX.XX; and
  5. The tree is a native species per the City of Kirkland's Native Trees Plant List.



- B. Groups: three (3) or more regulated 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.
- C. If a tree is designated a Tier 1 tree it shall be retained, however:
  - 1. The City does not require tree retention (including Tier 1) 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 building pads 40' wide at any point of the building design, or
    - d. Interfere with access and utility connections.
- D. In order to retain Tier 1 trees, an applicant will submit a development proposal that retains or results in less impacts through, but not limited to, a reduction in the size, scope, configuration or density of the project. Tier 1 trees shall be retained through design modifications of the primary building.
- 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 senior project manager after survey and arborist reviews are complete, as early as possible under preliminary review.
- F. The purpose of the Conference is to approve site design and Tier 1 retention measures that prioritize avoidance of Tier 1 trees. All parties involved with the Conference shall be dedicated to completing Tier 1 retention measures within twenty-one (21) business days. Once agreement on Tier one measures is obtained, it shall be posted on project site by the maintained and updated by the City's project manager.
- G. If agreement cannot be reached within twenty-one (21) business days that balances the site's primary building footprint with the retention of Tier 1 tree(s), then:
  - 1. The original primary building footprint is maintained, and
  - 2. The applicant shall plant first on-site, if possible, outside the building footprint and pursuant to the on-site planting requirements of this sections, or off-site, pursuant to the off-site planting requirements of this section, at a rate of 3:1 for every Tier 1 tree that was removed, and
  - 3. Pay \$2000 into the City's Tree Forestry Account, for every Tier 1 tree that was removed.



## Tier 2—Significant Trees

### **Development sites – Tree density.**

**A. Introduction.** A minimum tree density based on tree credits per acre shall be required to retain or plant a minimum number of trees 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.

1. 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.
2. Density for retained trees is calculated to determine if supplemental trees are required be planted to meet the minimum tree density for the entire site.
3. If the tree density credits 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.
4. Location prioritization for both retained and planted trees is established.
5. If a tree is designated a Tier 2 tree, removal may not be allowed. 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 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
  - e. Interfere with access and utility connections; or
  - f. Exceed specified credit requirements.

6. 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.

7. Incentives are provided for retention beyond minimum tree densities, and outside of location prioritization areas, as defined in section XX.XX.XX

**B. Tree Density Requirement.** The required minimum tree density varies by land use zoning designation and are calculated as a percentage of required per minimum tree credit per 1000 square feet of site area. The minimum tree credits per acre are provided in Table XX.XX.XX.

1. Tree density may consist of retained trees, supplemental trees, or a combination of both.

2. Retained trees transplanted to an area on-site may count toward required density if approved by the director 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.

3. 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.

4. If a development site falls below the minimum density with retained trees, supplemental tree planting is required to meet minimum per acre density requirements.

5. 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.

5. Where supplemental trees are required to be planted, a minimum size requirement is established to meet the required tree density.

6. 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.

7. Retained cottonwood and alder trees shall not count toward the tree density requirement.

8. If a Tier 1 tree is removed, it shall be replaced by three new trees (3:1 replacement) as outlined in section XX.XX.XX, Tier 1 Trees. Tier 1 tree replacements may be planted off-site if necessary, pursuant to the off-site planting requirements in this section.

Table XX.XX.XX  
Tree Density Requirements Per Land Use Zone  
(as a percentage of 1000 sq ft per required minimum tree credit)

Land Use Type	Required Minimum Tree Credits per 1000 sq ft*
Single-Family	1
Multifamily	.25
Industrial	.25
Commercial and Mixed Use	
Public Facilities (Includes municipal buildings, schools and institutions)	
Downtown Commercial	.15

**\*Suggested zone exemption language?:** ADU/DADU are exempted from these Code requirements. Public facilities and institutions that are K-12 public schools, non-profit public hospitals, mental health facilities, and shelters are required to comply at .20 tree credits per 1000 sq ft. Affordable housing up to 80% King County AMI, low income senior assisted living, and Level I daycare facilities are required to comply at .20 tree credits per 1000 sq ft. SFR minimum tree density requirements may vary by zone or lot (*This is something the city may want to consider given the small size of some lots, upzoning that's being considered, the environmental challenges on some lots and odd shapes of some lots, etc etc*)

### C. Tree Density Calculation.

1. To calculate required tree density credits, divide the square foot area of the subject lot by 43,560 (the square foot equivalent to one acre). The resulting number is then multiplied by (30-70), the minimum tree density credit requirement for one acre. **(MBAKS prefers 45-50 credits, staff prefers 30; FHNA prefers 70)**
2. In calculating required tree density credits, any fraction of credits shall be rounded up to the next whole number from a 0.5 or greater value.

Table XX.XXX.XX  
Tree Density Credits for Retained or Supplemental Trees

DBH	Tree Credits
Planted 6' Conifer, or 2" cal. Deciduous	1
Planted 8' Conifer, or 3" cal. Deciduous	2
6"	1
6" – < 12"	2
12" – < 18"	4
18" -- < 24"	6



**Table XX.XXX.XX**  
**Tree Density Credits for Retained or Supplemental Trees**

DBH	Tree Credits
24" - 30"	7
>30"	8
Landmark Tree (30" and above)	1.5 x Tree Credit above
*No arborvitae or similar	

Example: a 7,200 square-foot lot would need eight (8) tree credits ( $7,200/43,560 = 0.165 \times 45 = 7.4$ , or eight (7) credits).

**D. Supplemental Tree Planting Requirements.**

1. The minimum size for supplemental trees shall be six (6) feet for conifer, two-inch caliper for deciduous.
2. In rare 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.

**E. Tree Location.** 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. Adjacent to critical areas, associated buffers, and near trees or corridors that provide habitat value;
  - b. Regulated trees that form a continuous, healthy canopy;
  - c. Regulated trees on slopes greater than 20%;
  - d. Site perimeter or required rear or front yard setbacks;

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 incompatible 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.

**F. Incentive Measures.** Incentives, or bonuses, may be earned by the applicant by providing retention or planting measures that better the retention and/or planting requirements of this section.

1. The applicant may provide additional measures that better the retention/replanting requirements of this section in exchange for City bonuses to the applicant.

2. Optional incentive measures may include but are not limited to:

a. Retention of or replanting of additional Significant trees that enhance slope stability and reduce potential for soil erosion;

b. Retention of additional Landmark trees or an additional Group above the required minimums (applicant discretion);

c. 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;

d. Construction of green roofs;

e. A Significant tree retained on the interior of the lot that provides energy savings through winter wind protection or summer shading; or

f. Retention of an additional twenty (30%) of Significant trees on the interior of the lot above the minimum tree density requirements.

3. Bonuses for optional incentive measures may include but are not limited to:

- a. Tree density credits up to a maximum of eight (8) credits for one or more alternative compliance measures;
- b. Expedited permit review; or
- c. Reduction of permit fees; or
- d. Additional FAR, density or Lot Coverage; or
- e. A reduction in on-site or off-site parking requirements; or
- f. Other bonuses as determined by the director.

**G. Off-Site Tree Planting or Fee In-Lieu.** 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.

1. Allowable sites for off-site plantings may include, but are not limited to, these sites within City limits:

- a. City-owned properties;
- b. Private open space such as critical areas or Native Growth Protected Areas (NGPA) parks, or street rights-of-way;
- c. Private property with written consent and agreement of the owner;
- d. 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;
- e. Institutional (hospitals, mental health facilities), municipal (including K-12 educational facilities), government, or non-profit buildings with written consent and agreement of the parties; or
- e. Other properties as determined by the director.

2. 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.

3. 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.



4. Fees shall be paid to the City at the time of:

a. Recording for single detached homes in a subdivision or short subdivision and townhome developments; or

b. Prior to issuance of building permits for all other development.

**H. Modification to Tree Retention Requirements.** A modification to retention requirements shall be granted at the discretion of the director.

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MBAKS has draft language proposed for IDP, fencing during construction, and private property/tree protection if/when alternative amended language to City staff's July 11<sup>th</sup> ordinance is warranted at this time.

## Deborah Powers

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**Subject:** FW: Materials for Joint PC/HCC Public Hearing  
**Attachments:** MBAKS Proposed Amendments to City KZC 95 Draft.docx

**From:** Gina Clark <[gclark@mbaks.com](mailto:gclark@mbaks.com)>  
**Sent:** Monday, November 4, 2019 3:29 PM  
**To:** Rick Whitney <[RWhitney@kirklandwa.gov](mailto:RWhitney@kirklandwa.gov)>; Carter Bagg <[CBagg@kirklandwa.gov](mailto:CBagg@kirklandwa.gov)>; John Tymczyszyn <[JTymczyszyn@kirklandwa.gov](mailto:JTymczyszyn@kirklandwa.gov)>; John Kappler <[johnk@kapplerhomeplans.com](mailto:johnk@kapplerhomeplans.com)>  
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**Subject:** Materials for Joint PC/HCC Public Hearing

Good afternoon, Chairs Bagg and Whitney.

Attached, please find proposed amendments respectfully submitted to the PC and HCC for consideration at the public hearing tomorrow night, November 5, 2019. In addition, I'm providing a [link to a PPT](https://mbaks.app.box.com/s/n5aethv1rq9xmginzcydqbjacz52mqpo) [https://mbaks.app.box.com/s/n5aethv1rq9xmginzcydqbjacz52mqpo] for your consideration, and also for submission to the public record.

The PPT provides three things:

1. Responses to provisions in staff's report
2. Brief code analysis of the Working Group's original proposal, staff's draft, and MBAKS suggested amendments (condensed versions, of course, because I like you)
3. Stakeholder insight

I will NOT be going through each slide tomorrow! I will not have enough time, and again, I like you. These are more informational and for your reference. I will be taking a few to walk through.

The attached amendments are excerpts from a larger set of amendments MBAKS has prepared. These only cover Tier 1 and Tier 2. Why? I did not want to submit additional amendments on IDP (for which MBAKS is in general agreement to accept), tree fencing requirements, public tree management, light/view/solar protection, private homeowner "tree banking," etc., because, quite frankly, Tier 1 and Tier 2 are enough to handle by themselves out-of-the-gate. And you will have a lot to handle at the public hearing tomorrow.

If Tier 1 and Tier 2 amendments are acceptable, and direction is given by PC or HCC to pursue additional amendments, MBAKS is willing to provide them. However, I simply don't know how tomorrow will go, and I did not want to overwhelm the PC/HCC.

In addition, I wanted to allow ample time for our Working Group partner, FHNA, to review the amendments. I provided them with a draft two weeks ago, and I just finished discussing them with FHNA about two hours ago. We remain in collaborative and respectful, friendly and open, and continuous dialogue is important, even if agreement on all issues is not absolute 100% of the time.

With that, please don't hesitate to contact me if you have any questions or comments ahead of the meeting tomorrow night.

Take care,  
Gina

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Kirkland, WA 98034  
360-221-7040 - Office  
ablanchardlaw@whidbey.com

November 5, 2019

Ms. Deb Powers  
Urban Forester  
City of Kirkland Planning  
and Building Department  
123 5th Avenue  
Kirkland, WA 98033

Houghton Community Council

This Communication is being sent by e-mail  
to <DPowers@kirklandwa.gov>, and  
to planningcommissioners@kirklandwa.gov,

Kirkland Planning Commission  
123 5th Avenue  
Kirkland, WA 98033

Regarding: Case CAM18-00408 Joint Public Hearing before the Kirkland Planning  
Commission and Houghton Community Council on Proposed Amendments to  
KZC 95 Scheduled for November 5, 2019

Dear Ms. Powers, Kirkland Planning Commission, and Houghton Community Council:

The following are my comments on the draft KZC 95 Code Amendments dated  
November 5, 2019.

1. ADOPT THE PROPOSED AMENDMENT FOR TREE REMOVAL ON LARGER  
PROPERTIES

The amendment to KZC 95.25.(5)(a) would allow larger developed properties to remove  
up to six trees within a twelve month period, provided certain conditions are met. The relevant  
proposed language is:

5. Tree Removal Allowances.

2. Tree Removal Allowances. a. Except in the Holmes Point Overlay zone, Any private property  
owner of developed property may remove up to two (2) significant a specified number of  
regulated trees based on the table below within a 12- month period without having to apply for a  
tree removal permit; provided, that:



a. The trees are not located in ~~critical areas~~ wetlands, streams or their buffers, ~~in geologically hazard areas, or~~ on properties in the Holmes Point Overlay area or within the City's shoreline jurisdiction. Trees within shoreline jurisdiction are subject to additional tree removal and replacement standards if the tree(s) to be removed are located within the required shoreline setback. See Chapter 83 KZC for additional standards;

b. The trees are not Landmark trees or dedicated grove trees

c. There is no active application for development activity for the site;

d. The trees were not required to be retained or planted as a condition of previous development activity per KZC 95.40, 95.42-45;

e. The trees are not protected under a Voluntary Tree Conservation Easement;

f. ~~The trees are not located on properties within the City's shoreline jurisdiction. Trees within shoreline jurisdiction are subject to additional tree removal and replacement standards if the tree(s) to be removed are located within the required shoreline setback. See Chapter 83 KZC for additional standards;~~

g. All ~~of~~ the additional standards for tree removal and tree removal permits as described in subsections (4) of this section are met.

Table x	
Lot Size	Maximum number of regulated trees allowed to be removed every 12 months with notification
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

3. Tree Removal Prior to Development Permit. The City will not accept any application for a short plat or subdivision for a property with a pending tree removal permit or tree removal notification. Further, the City will not accept any application for a short plat or subdivision for properties where regulated trees have been removed (including girdling) for a period of 12 months following the tree removal, with the exception of approved hazard or nuisance tree removals.

4. Tree Removal Notification Form. The Planning and Building Department shall ~~provide establish and maintain~~ a tree removal ~~request-notification~~ form. The form may be used by property owners to request Department review of tree removal for compliance with applicable City regulations.

5. Tree Removal on Private Property. A Tree Removal Permit is required if a property owner is requesting to exceed the allowances in subsection (2) of this section, or to remove Hazard or Nuisance Trees in subsection 9 of this section.

**COMMENT:** I urge the Commission and the Council to adopt this Amendment. Although I live in the Holmes Point Overlay, where the general provisions of the tree code are superseded by Overlay provisions, this Amendment is one step towards recognizing that there are owners of larger properties in Kirkland who have advocated for years for the city to recognize there should be more lenient tree removal provisions applicable to larger lots.

Once the Amendments to KZC 95 are finalized and approved, I look forward to a resumption of the previous Planning Department efforts aimed at amending the Holmes Point Overlay to provide larger removal allowances for larger lots in the Holmes Point Area, which was terminated some time ago with no resolution.

5. PLANNING STAFF DESERVE THANKS FOR ALL THEIR WORK  
ON THESE ISSUES

I also wish to state that the staff I have dealt with, particularly Ms. Powers, have been diligent in their attention to matters we are discussing, responsive to requests, and very courteous.

Thank you for taking the time to read what I have submitted.

Sincerely,



Alice L. Blanchard  
11531 Holmes Point Drive NE  
Kirkland, WA 98034



## Deborah Powers

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**From:** Greg Slayden <gregslayden@hotmail.com>  
**Sent:** Tuesday, November 05, 2019 2:54 PM  
**To:** Deborah Powers  
**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:** 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**

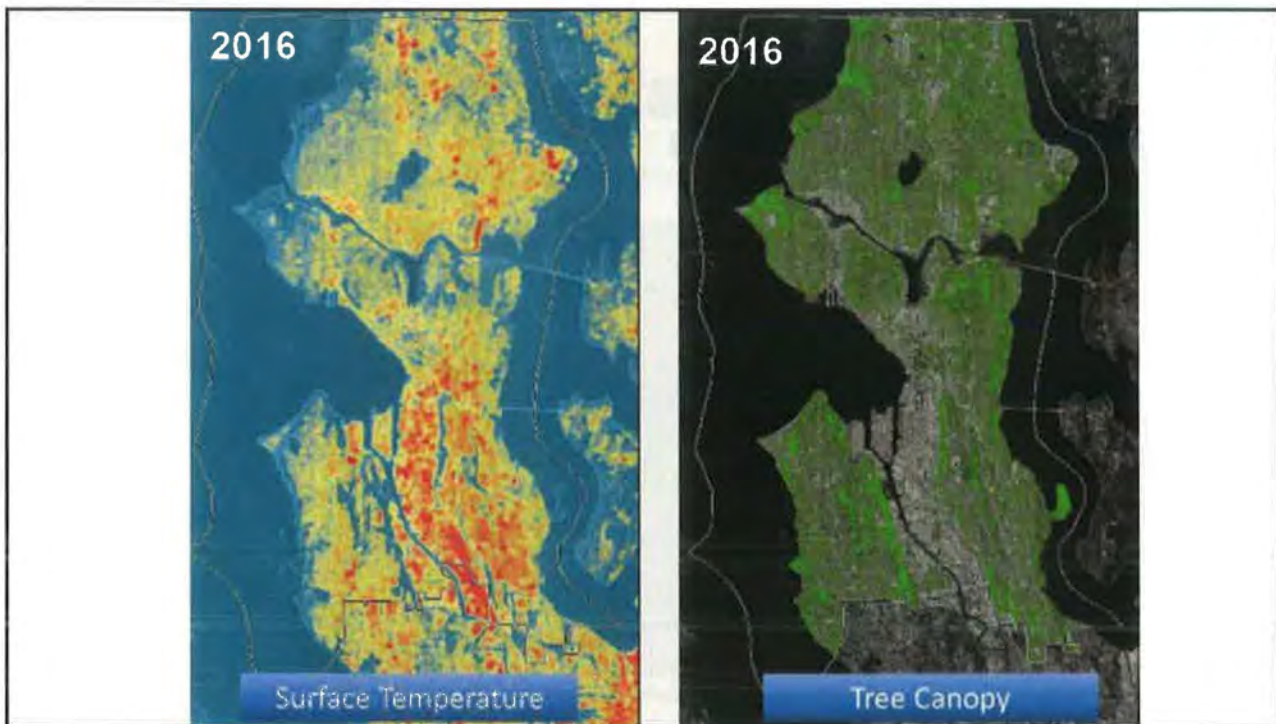
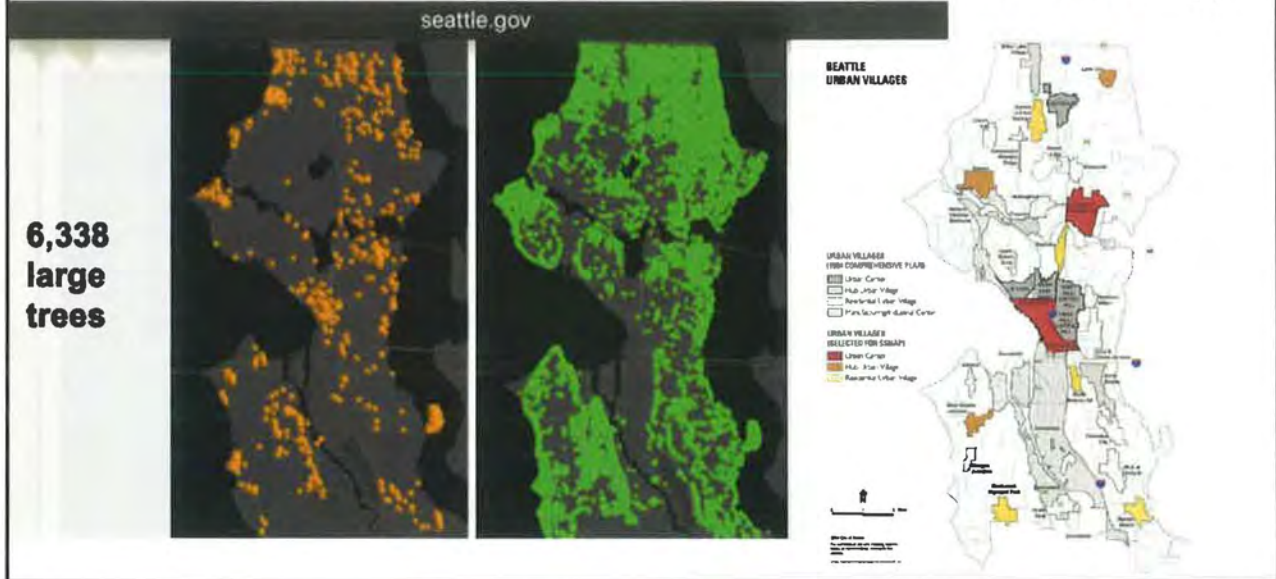
Seattle in 2019







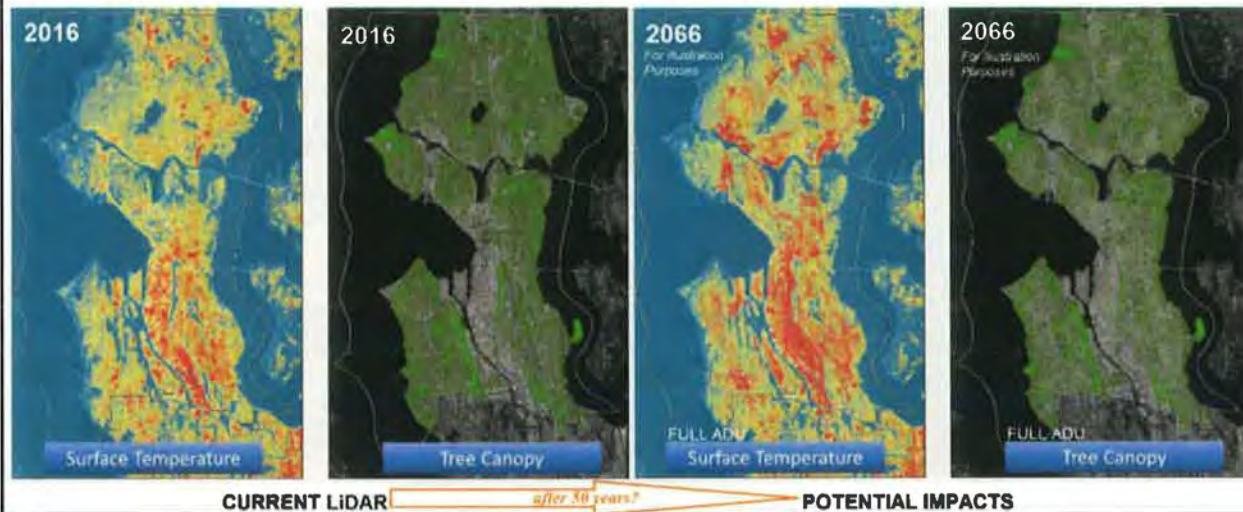
# 'Save the Last 6000' (Seattle's 2016 LiDAR Study)





## 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>

- 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.



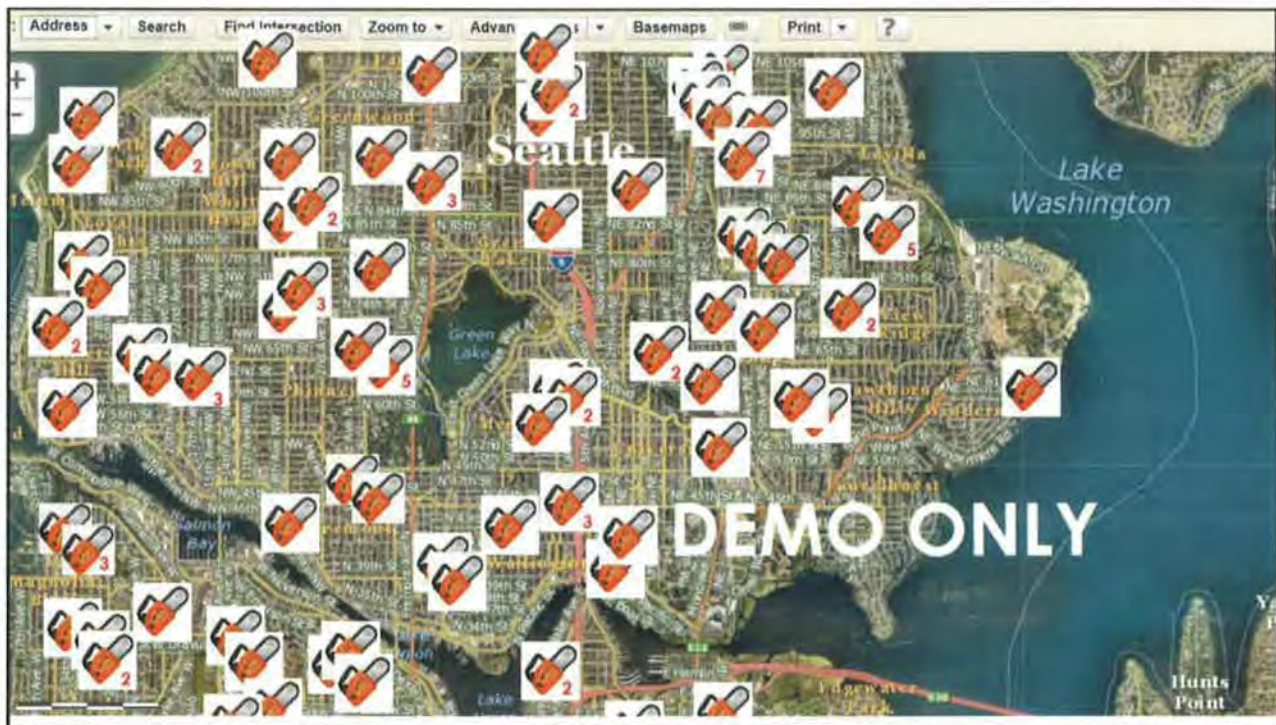
# Why Do We Need Codes to Retain Trees?





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
8/8/2019	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 Marina Place	3018723-LU			Construction permit issued
8/19/2019	8/8/2019	8/19/2019	3010 24th Ave W	6722371-CN			
8/19/2019	8/9/2019	8/19/2019	3011 30th Ave. W 3015 30th Ave. W 3037 27th Ave W 3238 36th Ave W 3406 34th Ave W 3412 34th Ave W 3444b 23rd Ave. W 3501 25th 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 3623 34th Ave. W 3633 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?







## 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

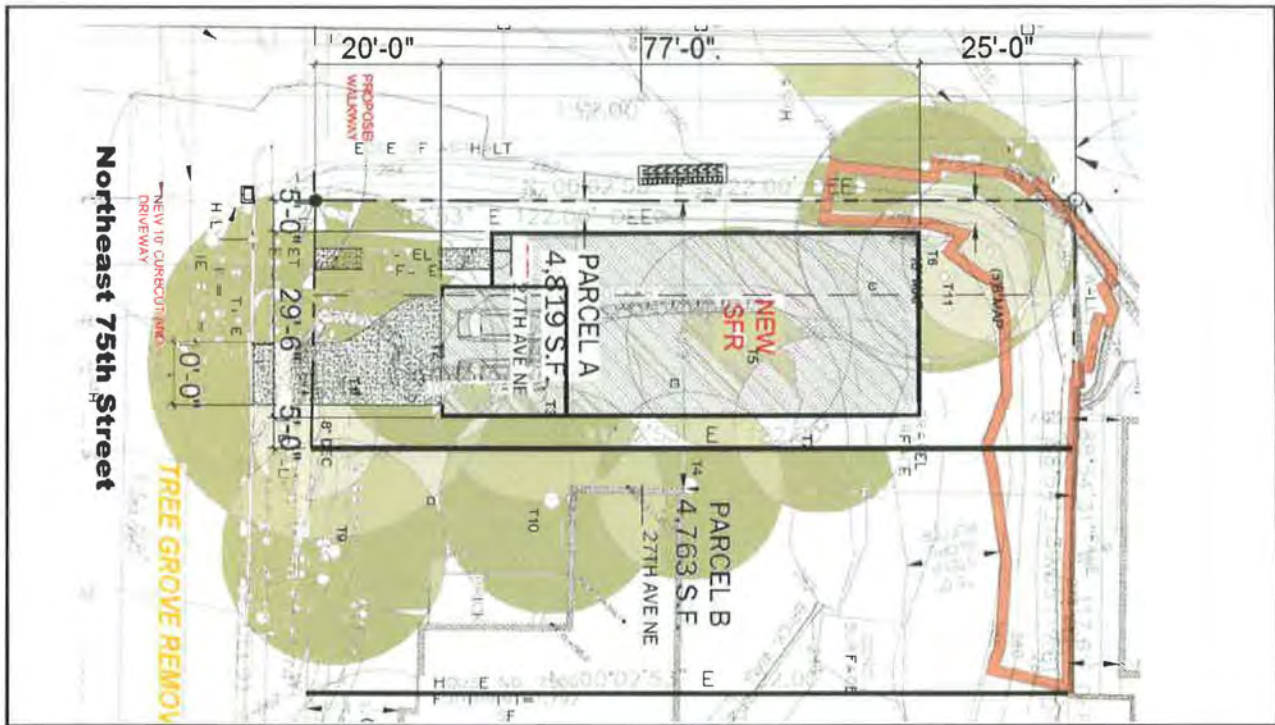


## Are Trees on Single-Family Lots Enough?

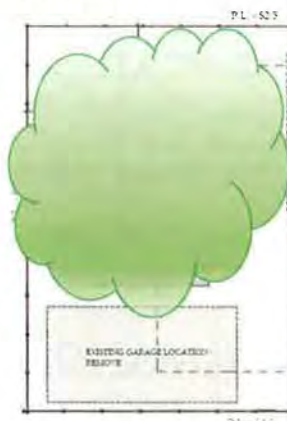
Broken Promise (SMC 23.44)

- 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)

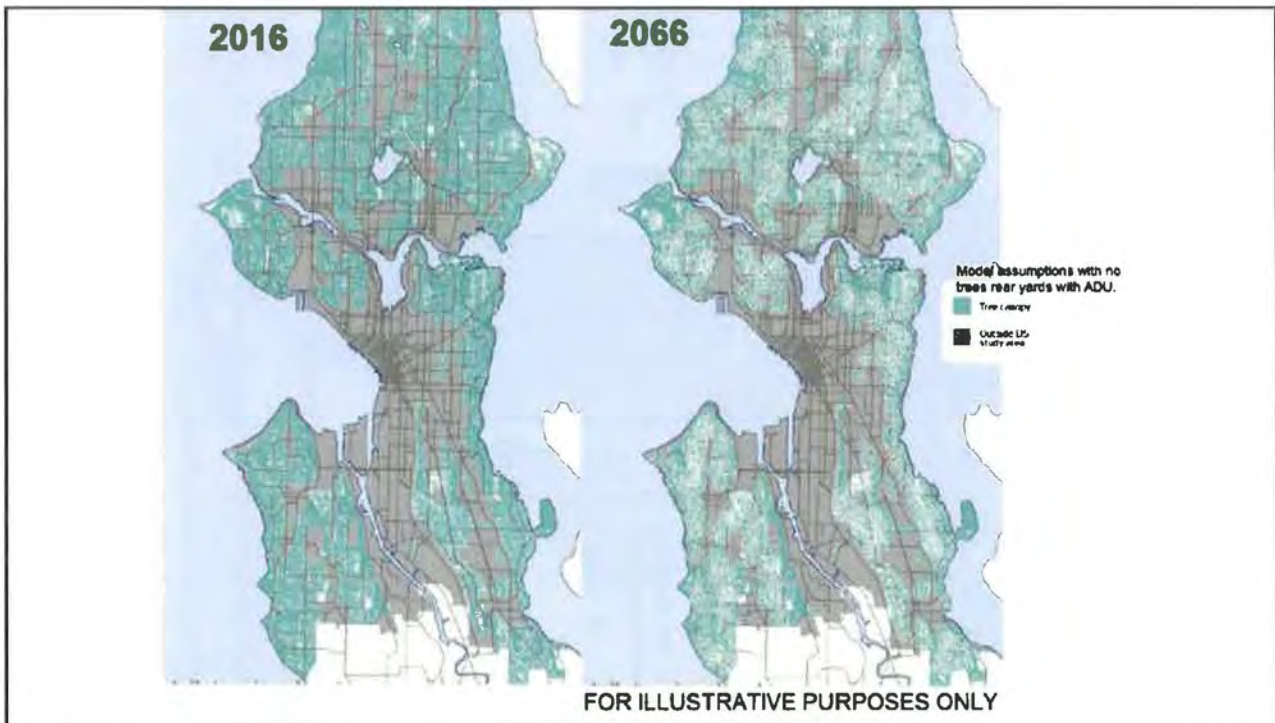


**ADU REAR LOT COVERAGE NOTES**

• 20' x 20' = 400 S.F.
• 10' x 20' = 200 S.F.
• 10' x 10' = 100 S.F.
• 20' x 10' = 200 S.F.



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**

Questions?

TreePA



## 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



## 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



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



Scott Morris, President

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



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

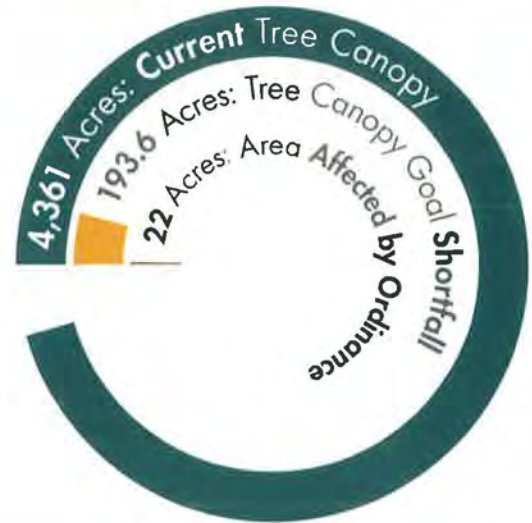
Attachments: MBAKS Proposed Draft Ordinance; KZC Chapter 95 Considerations Infographic; Municipal Code Comparison Matrix

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

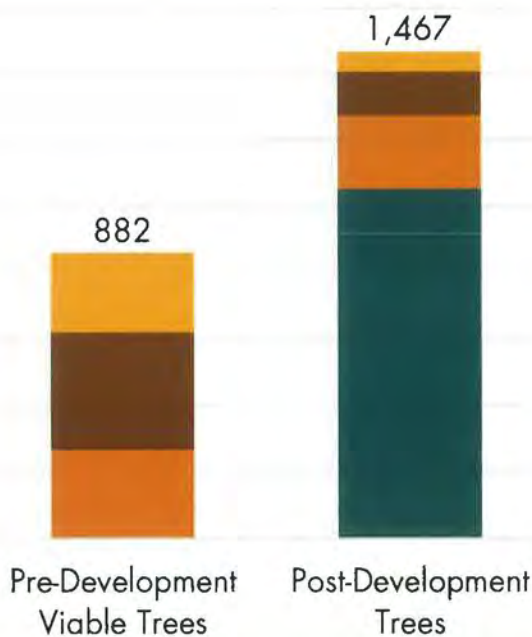
# KZC CHAPTER 95 CONSIDERATIONS

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

In October 2019 according to Realtor.com

**Kirkland  
median  
home  
price**

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	✓	117 ✓



## **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 arborvitae.
  - 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:** 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. MBACKS 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 were 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

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**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](mailto:gclark@mbaks.com)> wrote:

<MBACKS 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:** 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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## 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)



## 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 not 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 has 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]:** MBAKS 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 allowances	

**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. It 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. MBACKS 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 ... [1]

**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 m ... [2]

**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 ... [3]

**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 ... [4]

**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 ... [5]

**Commented [GC47R46]:** While MBACKS hears the concerns of FHNA, unless the requirements in staff's current Tier 2 draft proposal revert back to reflect original agree ... [6]

**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 ... [7]



- 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 PE 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 requirements 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 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 [8]

**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.**

- i. Diameter at breast height (DBH) of the tree shall be measured in inches.
- ii. 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).
- iii. 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.
- 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 the tree density requirement.
- v. 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.**

- i. 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.
- ii. 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.

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

- 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



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 [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 credits 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.

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 [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 incentivize 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.



