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MEMORANDUM

Date: November 5, 2019

To: Planning Commission and Houghton Community Council

From: Deb Powers, Urban Forester
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Adam Weinstein, Planning and Building Director

Subject: Zoning Code Amendments for Tree Management and Required Landscaping
Chapter 95, Kirkland Zoning Code, File Number CAM18-00408

I. RECOMMENDATIONS

Conduct a joint public hearing to take public comments on proposed amendments to Kirkland Zoning Code (KZC) Chapter 95, Tree Management and Required Landscaping (Attachment 1). At the close of the public hearing, the Houghton Community Council (HCC) may make a recommendation to the Planning Commission (PC). On consideration of all information submitted, including the HCC recommendation, the PC will make a recommendation on the amendments to the City Council for adoption.

II. BACKGROUND

The intent and purpose of KZC 95 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” through tree preservation and tree replacement. Kirkland’s tree ordinance establishes a permit process and standards for the protection and replacement of trees primarily on private property. The regulations address three basic scenarios:

- Tree removal where no development is involved
- Tree retention/replanting associated with development activity
- Required landscaping, which typically applies to commercial and multifamily development.

Attachment 2 summarizes the most basic requirements of KZC 95. Understanding the background of the code, how it is currently applied and the challenges of its application (described below) helps to inform what changes could be made to the code. Attachment 3 shows the effects of the proposed code changes in comparison to the current code.

In 2002, during a time of significant land development, extensive tree removal was an issue of increasing concern to Kirkland residents. At that time, numerous research findings pointed to the environmental, social and human health benefits of urban forests. In response, the City Council adopted a series of interim ordinances: with new single-family home development, all perimeter trees (within 10 feet of property lines) were required to be retained, but tree removal was allowed for the construction of structures, access, utilities, etc. With subdivisions, 25 percent of the existing trees on site had to be retained, regardless of their condition. One of the consequences from the 25 percent retention rule was that although a certain quantity of trees on every site was retained, there were no assurances that the retained trees would be of high quality. Property owners who wanted to remove trees (where no development was involved) were limited to removing two trees per year.

In 2006, the City adopted Chapter 95 of the Kirkland Zoning Code. The initial development of the code spanned several years and involved the general public and the development community. Kirkland was among the first 3 cities in the Pacific Northwest region to adopt comprehensive tree codes. Since then, most neighboring cities have adopted tree codes to meet Tree City USA requirements, and many (Woodinville, Kenmore, Issaquah, etc.) are based on Kirkland's model.

Minor and moderate amendments were made to Kirkland's tree code in 2010, mainly to clarify aspects of the code and to incorporate the Integrated Development Plan (IDP) as an option to the phased review process. Since then, challenges from the public, developer and staff point of view have been identified, warranting a broader scope of code changes to KZC 95.

III. PC AND HCC PROCESS TO-DATE

The PC, HCC and City Council have now held a total of 18 study sessions and briefings to provide staff with direction on proposed changes to the tree code. Over the past 16 months, the PC and HCC reviewed tree canopy cover data, <https://www.kirklandwa.gov/Assets/Planning/Planning+PDFs/2018+Tree+Canopy+Assessment.pdf>, field study findings, <https://www.kirklandwa.gov/Assets/Planning/Planning+PDFs/Planning+Commission/Tree+Research+Presentation+Staff+Report+with+Attachments+08092018+PC+Meeting+WEB.pdf> and additional staff analyses to gain insight into potential code changes. The 2018 canopy analysis showed the greatest percentage of canopy loss (253 acres) since 2010 was in the single-family residential land use areas. A field study showed that, under the current code, two-thirds of all trees on post-development sites are newly planted, indicating relatively successful replanting of development sites. In contrast, a very low percentage of trees exceeding 22-inch trunk diameters (DBH) were retained with development, indicating tree age/size diversity was not resulting from the current tree code.

In November 2018, a partnership emerged from self-appointed members of the Finn Hill Neighborhood Alliance (FHNA), the Master Builders Association of King/Snohomish Counties (MBAKS) and Houghton residents. The PC directed staff to work with the group with the expectation that the areas of agreement resulting from their collaboration would provide a greater level of clarity and predictability to the draft code related to development. This

stakeholder group presented a regulatory approach to the City on January 15, 2019. The main premise of the stakeholders' approach was:

- Provide "extraordinary" protection for landmark trees over 30" trunk diameter (DBH)
- Redefine tree groves as groups of at least three or five trees, with at least one large tree
- Allow developers the right to remove trees in excess of a tree credits per acre quota

Tabletop exercises with the stakeholder group demonstrated that successfully retaining large trees on development sites is challenging due to the extent of the trees' larger root systems. As code concepts emerged, staff applied different approaches to 22 recent single-family development sites to understand the effect of each potential code change (Attachment 4). Using the current code as a baseline for comparison, the stakeholder's proposed landmark tree provision showed minimal improvements in large tree preservation, even when retention requirements were increased to 50 tree credits per acre.

When applying the stakeholder's "quota" approach, where tree removal could occur after meeting a 50 credit per acre quota, a substantial loss of trees between 6-24 inches DBH resulted on the same 22 development sites. On review of the stakeholder proposal and staff analysis, the PC directed staff to prepare a draft code that:

- Emphasizes landmark tree protection
- Protects groves defined by at least one large tree
- Retains high quality trees located in setbacks (as with the current code), with higher standards for the health and condition of the trees that must be retained
- Does not use the stakeholder's tree credit quota approach

Staff continued to meet with the stakeholder group through June 2019 to refine specific code requirements. The stakeholders' agreed-upon code approaches directed many of the draft code amendments; however, the stakeholders did not reach full agreement on certain approaches as noted in Attachment 3.

The HCC has met 6 times (including 2 joint meetings with the Planning Commission) to review and discuss potential amendments. Early in the amendment process, the HCC developed guiding principles for their analysis of the Chapter 95 code amendments. Although not formally adopted, the principles (below) may be used by the HCC to determine code amendment priorities that would:

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 PC has made a concerted effort over 16 months of study and 12 study sessions to draft a code that strikes an appropriate balance between establishing clear and predictable regulations while meeting the City's environmental and tree canopy goals. At the July 11, 2019 PC meeting, the PC agreed to move the draft code forward to public hearing.

IV. DISCUSSION ISSUES FOR AMENDMENTS

The PC and HCC will now take broader public comment on this complex balance between predictability and the City's policy goals for the environment. The following key questions are identified as discussion points for the community, the HCC, and the PC:

Are the resulting effects of the proposed draft code acceptable?

As previously discussed and shown in Attachment 3, staff examined the effects of the proposed code changes using the current code as a baseline for comparison. Tree removal or tree retention is noted with a symbol in the Canopy Effect column. The proposed code provisions that will result in less tree retention on development sites and greater homeowner tree removals are:

- Groves redefined by tree size and quantity
- Eliminating the "Moderate Retention Value" requirement in the current code
- Eliminating protection of trees in "Fair" condition
- Increasing tree removal allowances for larger properties
- Allowing the removal of hedges comprised of regulated-sized trees

The effects of code concepts that were discussed but not incorporated into the draft code are shown under the "Prior Discussion Topics" section. Staff concludes that proposed code changes resulting in lower levels of tree retention on development sites and greater homeowner tree removals than the current code are not acceptable as they do not meet the intent of KZC 95 and the goals established in the Comprehensive Plan. The purpose of showing the effects of proposed code changes is to facilitate the discussion on potential KZC 95 amendments so that the recommendations from the PC, HCC and ultimately City Council reflect the community's vision for a green and livable Kirkland.

Does the draft code provide enough predictability for the development review process?

Predictability is a term that has been used to describe a high level of consistency and certainty when code requirements are applied. The current KZC 95 was written to provide flexibility for various development scenarios, using code language such as retain trees "if feasible" or to "the maximum extent possible." Consequently, the Planning Official's authority to require site plan alterations to retain trees often results in lengthy negotiations between applicants and staff. The MBAKS stakeholders were instrumental in specifying regulatory expectations and the extent of measures for tree retention. Code changes to increase predictability include:

- Eliminating the "if feasible/maximum extent possible" and other subjective language
- Eliminating the Low, Moderate and High Retention Value tree definitions
- Including specific tree condition ratings
- Establishing guarantees of density, lot coverage, and floor area ratio
- Establishing Tier 1/Tier 2 guaranteed building envelope dimensions
- Eliminating phased review (IDP) for short plats and subdivisions
- Establishing a clear order of priorities for tree retention and replanting

Is the draft code clear and streamlined for all users (homeowners, staff, developers, arborists, etc.)?

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 in contrast to the

current focus on retaining trees in setbacks. 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.

Will the code amendments help us meet our 40 percent tree canopy cover goal?

A tree density "credit" is a code requirement metric originally based on timber stocking models. Tree credits equate to increasing inches of trunk diameter and are a general indicator of tree size, which generally translates, albeit indirectly, to tree canopy cover. Tree canopy cover is the outline of leaves as seen from above, usually derived from aerial imagery for the purpose of goal-setting. In early consideration of the code amendments, the PC discussed feasibility of using canopy cover as a regulatory metric to ensure meeting the City's 40 percent canopy cover goal. After thoroughly examining the issue, the PC made a decision that developing a more precise credit-to-canopy cover formula or converting entirely to canopy cover-based requirements is not a consideration at this time. The primary pitfalls discussed were that it would be overly burdensome on property owners and City staff to attempt to measure or enforce canopy cover on a lot-by-lot basis, and that canopy analysis and canopy goals are more effectively evaluated and achieved on a citywide basis (i.e., some lots will invariably be above or below 40 percent canopy cover).

To gauge the immediate effectiveness of the proposed code changes, the current code has been used as a baseline for comparison. The PC will be looking for public feedback on whether the resulting effects of the draft code compared to the current code are acceptable. The City will continue to periodically monitor its canopy cover and assess Possible Planting Areas (PPA) identified in the canopy analysis citywide for guidance on where/how to meet its 40 percent tree canopy cover goal.

Is the 30-inch DBH (trunk diameter) threshold appropriate for Landmark trees?

There is not a data source available for size of trees citywide. Rather, discussions have focused on data available from sampling development permits. The field study findings showed that approximately 10% of all trees required to be retained on 2008-2013 short plat project sites are large trees (over 22-inch trunk diameter). As discussed earlier, this indicates that the current code is not resulting in a diversity of tree age/size. Tree size/age diversity is important because larger trees provide the maximum amount of public benefits, including to community character and in improving air and water quality. However, protecting only the very largest trees in an urban forest and planting new trees creates a gap of the "mid-sized/aged trees" that would otherwise ensure an even succession of benefits over time.

Lowering the DBH for landmark trees would include more of the mid-size/aged trees but would also impose additional constraints to development. The draft code includes the stakeholders' suggested 30-inch threshold, although the PC has indicated a desire to decide the final threshold after consideration of public testimony.

Should the removal of Landmark trees not associated with development be prohibited?

This provision would help to prevent the likely practice of preemptively removing landmark trees on potential development sites.

Should groves be defined by having 30-inch and 24-inch DBH trees?

The draft code requires the presence of one or more large trees (30" or 24") in order to be regulated as a grove. The current code regulates groves without requiring the presence of such large trees. When testing the effects of the new grove definition using recent building permit activity, a significant loss of trees that would otherwise be retained under the current code definition occurred.

The draft code includes the stakeholders' suggested grove thresholds, although the PC has indicated a desire to decide the final thresholds after consideration of public testimony.

Should the covenant that protects tree groves on development sites be eliminated?

Most trees that are retained on development sites are protected with a 5 Year Maintenance Agreement that, once it expires, allows the trees to be removed under the homeowner tree removal codes (note that the draft tree code would increase these homeowner allowances). However, designated tree groves are protected through a covenant (formerly easement). Unless the grove designation is recorded on the title of the subject property, a future homeowner would be unaware how the trees on their property mitigated the effects of the development over a much larger area.

In late 2017, the City Attorney's Office created an improved legal description so that protected groves could be described in a manner that minimized encumbrance of the property. With MBAKS' suggestion, staff developed a covenant in mid-2019 to replace the legal description for and easement, so that only the tree itself is encumbered, not the land. The MBAKS position on groves has shifted over the course of the KZC 95 code amendments, from a modest code clarification to more recently, objecting to the grove covenant altogether.

Should "phased" development continue to be allowed on short plats and subdivisions?

The IDP process was created in 2010 (the last major tree code amendment) as a response to the development community requesting more predictability for tree removal with short plats and subdivisions. The IDP process requires tree retention/removal decisions to be made early in the design of the development, whereas "phased" developments allow tree removal as each demolition, clearing/grading and building permit is submitted and approved. Currently, IDP is a short plat/subdivision permit review option in addition to phased permit review.

Particularly during the 2007-2009 recession, many projects proceeded at a slow pace, often interspersed with changes in property ownership. In recent years, it has become more common for a single owner/developer to complete all development phases in a relatively short period of time, as it is often not cost effective to install tree protection fences, move heavy equipment on and off site, and remove trees multiple times throughout the duration of a single project. From a best management practice standpoint, successful tree retention relies on early planning.

IPD is now required in the Holmes Point Overlay (HPO) area. During the 2017-2018 HPO code revision process, City Council and Planning Commission members expressed an interest in requiring the IDP process citywide.

V. PROPOSED CODE AMENDMENTS

Key Objectives for the Code Amendments

The Purpose and Intent of Kirkland's tree ordinance as stated in KZC 95.05.2 is to "establish a process and standards to provide for the protection, preservation, replacement, proper maintenance, and use of significant trees...located in the City of Kirkland." The key objectives of the 2018-2019 tree code amendments are to:

- Support the Comprehensive Plan and Urban Forestry Strategic Management Plan goals
- Address issues and challenges that have arisen since the last code update in 2010
- Revise the code so that it is effective and practical for developers, homeowners and City staff to use

Amendments to KZC 95 were initially identified in the 2018-20 Planning Work Program that was carried over onto the 2019-21 Work Program. The PC has endeavored to balance the Purpose and Intent of KZC 95 with a property owners' right to reasonably develop their property (consistent with established zoning) and incorporate a greater level of code predictability, while streamlining the code and making it more user-friendly.

The code changes below are numbered for reference and discussion purposes. Minor code changes meant to clarify or further define something already in the code, address redundancies and typos, clarify the title of a section, or that involve reformatting or removal of outdated references are not enumerated. Due to the volume of edits and reorganized sections, readers may find it easier to compare Attachment 5 (clean copy – no track changes) to the existing KZC 95 <https://www.codepublishing.com/WA/Kirkland/?html/KirklandZNT.html>.

OVERALL - the chapter was reorganized to eliminate unnecessary text and the complicated Tree Retention Plan requirement chart in the current KZC 95.30.5. Below are major code changes that, when compared to the current code, may:

- Introduce substantive new requirements
- Substantially increase or decrease requirements
- Result in additional cost to permit applicants
- Change the intent of the code

SECTION 95.05 PURPOSE AND INTENT - minor edits for consistency with Comprehensive Plan updates, industry standards and the Urban Forest Strategic Management Plan

SECTION 95.10 DEFINITIONS

1. Revised – to reflect new data and changes to industry standards

The American National Standards Institute (ANSI) and International Society of Arboriculture (ISA) standards have been updated for the management of trees during construction, topping and the criteria for hazard tree evaluation. Note: the tree risk assessment language was added for greater transparency; however, it may be more appropriately conveyed as handouts or web-based information rather than codified.

2. New - landmark tree definition

Code section: KZC 95.10

Issue: protect large (over 22" trunk diameter) healthy trees on development sites

PC Direction: Identify high priority trees for retention by size and condition. Consider lowering the 30" DBH (trunk diameter) threshold based on public feedback prior to and at the public hearing.

3. Revised - grove definition

Code section: KZC 95.10

Issue: Some permit applicants feel they're required to retain groves with trees of lesser quality.
PC Direction: Define groves by condition. The stakeholder's proposed number of trees in a grove (3 with at least one 30" tree, 5 with at least one 22" tree) is appropriate but may need to be adjusted to reflect any changes to landmark provisions and reflect public feedback.

4. Revised – replace "significant" tree with "regulated" tree

5. New – hedge definition for new removal allowance

6. New – address girdled trees related to tree removals and code enforcement

7. New - Tier 1/Tier 2 tree definitions

Code section: KZC 95.10

Issue: The current retention value definitions are perceived as too subjective.

PC Direction: Delete high/moderate/low retention value definitions. Define Tier 1 trees as landmark and grove trees in excellent-to-good condition, located anywhere on a development site. Define Tier 2 trees as excellent-to-good condition, minimum 6" DBH, located in required yards.

SECTION 95.20 TREE REMOVAL PERMIT EXEMPTIONS – no changes

SECTION 95.21 PUBLIC TREE REMOVAL AND PRUNING – distinguish various public trees and allow minor pruning of street trees by adjacent property owners

SECTION 95.23 TREE PRUNING AND REMOVAL ON PRIVATE PROPERTY, NO DEVELOPMENT

8. New - prohibit landmark tree removal

Code section: 95.23

Issues: Helps to prevent the likely practice of preemptively removing landmark trees on potential development sites.

PC Direction: Consider ways to make prohibited Landmark tree removal language more prominent in the code and implement a robust public information campaign so homeowners are aware of the change; otherwise, there may not be widespread compliance.

9. Revised - increase the number of allowed tree removals based on property size

Code section: 95.23.2

Issue: Some owners of larger properties feel the current tree removal allowance of only two trees is not equitable.

PC Direction: Allow increased tree removals for varying ranges of property sizes. Don't allow "banking" of tree removals for future years (i.e. – 6 trees in year one instead of 2 trees per year for three years) due to complexity of tracking and potential accelerated canopy loss. The PC

may wish to discuss increased replanting standards commensurate with increased removal allowances.

10. New - prohibit tree removal prior to development permit submittal and prohibit tree girdling as a substitute for actual removal

Code section: 95.23.3, 95.23.7c, 95.10.19

Issue: Preemptive removal of high-quality trees to intentionally avoid compliance with development requirements occurs frequently. Girdling of trees has been used as a low-cost alternative to removal. Girdling can result in tree failure, which may pose a hazard.

PC Direction: Prohibit tree removal, including tree girdling, in advance of development and require 12-month period between tree removal and development permit submittal.

11. New – grant City authority to order removal of severely diseased trees

Code section: 95.23.9

Issue: This new authority would be used extremely sparingly but could be highly beneficial in preventing the spread of a disease/pest that would cause catastrophic tree decline resulting in failure of public trees.

PC Direction: Authorize the City to order diseased trees removed from private property as hazard or nuisance trees.

12. New – update code to include industry standards for Tree Risk Ratings for hazard tree criteria

SECTION 95.25 SUSTAINABLE SITE DEVELOPMENT

13. Consolidate and move into other sections related to tree removal allowances

SECTION 95.30 TREE RETENTION ASSOCIATED WITH DEVELOPMENT ACTIVITY

14. Move/consolidate text on tree density credit requirements for clarity in its application

15. Clarify Tree Retention Plan Submittal requirements for tree inventory, site plan and arborist report. Consider applicants' notification of potential impacts to trees on adjacent properties.

16. New - tree condition ratings

Code section: 95.30.3c

Issue: Some permit applicants feel they're required to retain trees of lesser quality. Developers want to gauge which trees must be retained during brief feasibility study periods. The draft code now protects only trees rated as "good" or "excellent". The resulting loss of trees that would have been rated as "fair" under the current code is negligible.

PC Direction: The new tree condition ratings are clear and streamlined.

17. Eliminate the Tree Retention Plan requirement chart in the current KZC 95.30.5 and incorporate the requirements into text for clarity.

18. New - Tier 1 tree retention standards

Code section: 95.30.4a

Issue: Current code reads "retain trees to the maximum extent possible" and that the applicant "shall pursue [tree retention] where feasible," which is too subjective.

PC Direction: Clearly identify the guaranteed development rights, regulatory expectations of the developer and code flexibility requirements for retaining Tier 1 trees.

19. New - building envelope dimensions for Tier 1/Tier 2 tree retention

Code sections: 95.30.4a(1) and 95.30.4b(1)

Issue: Developers desire more certainty/predictability when planning the location of structures in relation to retained trees on a development site.

PC Direction: Incorporate stakeholder group's provisions for guaranteed development rights using a building envelope approach: specify dimensions of a building footprint that may shift/move within the boundaries of the property and applicable setbacks.

20. Specify site plan alterations required to retain Tier 1/Tier 2 trees

Code sections: 95.30.4a(2) and 95.30.4b(2)

Issue: Developers desire more certainty/predictability when initially designing structural features and configurations in relation to retained trees on a development site.

PC Direction: Establish expectations on how and to what extent proposed improvements will be designed or modified to protect high-priority trees.

21. Specify tree protection practices/methods/materials required to retain Tier 1/Tier 2 trees

Code sections: 95.30.4a(3) and 95.30.4b(3)

Issue: Developers desire more certainty/predictability on the specific tree protection measures that will be required for retained trees to sustain the impacts of construction.

PC Direction: Codify specific protection measures appropriate for Tier 1/Tier 2 tree retention.

22. Allow specific variations to development standards to retain Tier 1/Tier 2 trees

Code sections: 95.30.4a(4), 95.30.4b(4)

Issue: Some developers believe that tree retention requirements lead to overly burdensome site constraints. Greater tree retention can occur with variations to development standards such as setback requirements and shortplat/subdivision lot clustering and lot size reductions.

PC Direction: Allow greater flexibility with certain zoning/development standards to retain high-priority trees in single family and short plat/subdivision developments.

23. Require clustering or lots in short plats/subdivisions in order to retain Tier 1 trees and allow clustering to retain Tier 2 trees

Code sections: 95.30.4a(4), 95.30.4b(4) and 95.30.7b

Issue: Zoning requirements for minimum lots size, lot coverage, and FAR may preclude more creative design of short plats and subdivisions around trees.

PC Direction: Allow greater flexibility with certain zoning/development standards to retain high-priority trees in short plat/subdivision developments.

24. Expand development standards to retain trees on multifamily, commercial & mixed-use developments

Code section: 95.30.5

Issue: Expand provisions for site plan alterations consistent with single family development

PC Direction: This is an acceptable code change

25. New - Tier 1/Tier 2 tree retention/removal order of priorities

Code section: 95.30.6

Issue: Establish tree retention priorities, particularly with allowing removal of Tier 2 trees if they conflict with retention of Tier 1 trees.

PC Direction: This is an acceptable code change

26. Eliminate option for phased tree retention with short plat/subdivision developments (IDP)

Code section: 95.30.7a

Issues: Tree retention/removal decisions made early in the design process are more effective towards preserving groves and high-priority trees. Developers desire more certainty with the permit process. Phased development results in the public perception that all trees fenced with initial site grading will be retained when the homes are built.

PC Direction: Eliminate option for phased short plat/subdivision development. Clarify and streamline modification provisions for approved short plats/subdivisions. Note that this is a key area where the stakeholder group has not reached full agreement.

SECTION 95.32 TREE AND SOIL PROTECTION DURING DEVELOPMENT ACTIVITY

27. New – prohibit tree removal prior to development permit submittal

28. New – display site plans indicating tree protection fence locations on job sites

SECTION 95.34 SUPPLEMENTAL TREE PLANTING REQUIREMENTS RELATED TO DEVELOPMENT ACTIVITY

29. Clarify the priority and application of tree credits

30. Revise – “cap” the maximum amount of tree credits awarded to individual existing trees

31. Revise - eliminate counting arborvitae and other slow-growing conifers for tree credits

Code section: 95.32.4

Issue: Field study findings revealed an excessive use of arborvitae to meet tree density credits. Slow-growing, columnar tree species with high mortality rates do not meet the intent of the code for tree replacement.

PC Direction: Consider arborvitae ineligible for tree density credits on development sites

32. New - consider higher protection for trees planted offsite to satisfy credit requirements

Code section: 95.32.5b

Issue: Trees planted on alternative locations to fulfill credits requirements may be erroneously removed.

PC Direction: This method to fulfill tree density credits has been rarely used, so codify that tree protection in perpetuity may be required with this scenario.

33. Revise – use a standard value for payment into City Forestry Account

Code section: 95:32.6

Issue: Consistent and fair application of the code, transparency in fee structure.

PC Direction: Use industry standards for assessing monetary value of replacement trees.

SECTION 95.40 REQUIRED LANDSCAPING BASED ON ZONING DISTRICT – no significant changes

SECTION 95.41 SUPPLEMENTAL PLANTINGS – no significant changes

SECTION 95.42 LAND USE BUFFER REQUIREMENTS – minor change to tree spacing requirement

SECTION 95.43 OUTDOOR USE, ACTIVITY, AND STORAGE – no change

SECTION 95.44 INTERNAL PARKING LOT LANDSCAPING REQUIREMENTS – no change

SECTION 95.45 PERIMETER LANDSCAPE BUFFERING FOR DRIVING AND PARKING AREAS – no change

SECTION 95.46 MODIFICATIONS TO LANDSCAPING STANDARDS – no change

SECTION 95.47 NONCONFORMING LANDSCAPING AND BUFFERS – no change

SECTION 95.50 INSTALLATION STANDARDS FOR REQUIRED PLANTINGS

34. New – appropriate plant location specifications and best management practices

Code section: 95.50

Issue: Field study findings indicate improperly-located supplemental trees, likely resulting in a nuisance tree.

PC Direction: This is an acceptable draft code change

35. New - require irrigation for supplemental trees planted in the summer

Code section: 95.50.2

Issue: Increase the likelihood of tree establishment

PC Direction: This is an acceptable draft code change

36. Revise - list resources, species diversity objective, tree establishment and hedge definition

Code section: 95.50.5-10

Issue: best management practices

PC Direction: This is an acceptable draft code change

37. Codify final inspection procedure

Code section: 95.50.12

Issue: Codify the consequences of ignoring tree retention/replacement requirements before final inspection/permit sign-off.

PC Direction: This is an acceptable draft code change

SECTION 95.51 TREE AND LANDSCAPE MAINTENANCE REQUIREMENTS – minor changes

SECTION 95.52 PROHIBITED VEGETATION – minor change

SECTION 95.55 ENFORCEMENT AND PENALTIES – move “topping” penalties here

SECTION 95.57 CITY FORESTRY ACCOUNT – add fees-in-lieu-of planting text

VI. Related Policy Issues

With the level of complexity and the broad range of considerations associated with regulating trees, several related policy issues emerged repeatedly during the code amendment process. While these issues may have been considerations for potential code changes, the PC has not directed staff to make changes to KZC 95 to address the issues described below. The effects of these related policy issues, if they were to become code provisions, are shown in Attachment 3 as Prior Discussion Topics.

Public tree management

Other than the standards and permit requirements for public tree pruning and removal, public tree management does not pertain to zoning codes and is not within the scope of the KZC 95 code revisions. The City's Urban Forest Strategic Management Plan (<https://www.kirklandwa.gov/Assets/Planning/Planning+PDFs/Urban+Forest+Management+Plan.pdf>) (UFSMP) outlines different approaches to urban forest management, such as looking at opportunities for improving public tree care and instituting tree planting programs. The recent canopy assessment (<https://www.kirklandwa.gov/Assets/Planning/Planning+PDFs/2018+Tree+Canopy+Assessment.pdf>) identifies gains in park tree canopy cover and losses in right-of-way tree canopy, in addition to describing Possible Planting Areas (PPA) for both. The City Council expressed some interest in a more coordinated or programmatic approach to increasing tree canopy cover on municipal property.

Tree retention and affordable housing conflicts

Code provisions for diverse housing types such as cottage, clustering, multifamily, duplex, triplex, and accessory dwelling units (ADUs) are contained within KZC 95. Each type has guaranteed setback/required yard, FAR (Floor Area Ratio) and lot coverage allowances that allow both development potential and tree retention appropriate for the size and zoning of the site. Small footprint developments like cottages can result in better tree retention compared to large footprint single family homes (<https://www.knkn.org/post/tacoma-welcomes-its-first-eco-friendly-affordable-housing-development>). The PC is currently studying "missing middle" and ADU code provisions, and staff believes the proposed amendments to KZC 95 would not interfere with the objectives of the missing middle/ADU project. As housing codes change in response to increasing density, adjustments to KZC 95 can accommodate that growth while maintaining a livable city and region.

Trees and solar energy conflicts

Staff found one example where tree removal was an obstacle to solar array installation, but the limitation was related more to the steep slopes on the site. Installing a solar array does not make economic sense if shade from larger structures, geography (ravines) or trees is too dense. Some homeowners will trim or remove their trees to improve their energy offsets, while others accept that shading just means a smaller or less productive system. Potential solar array customers can use Kirkland's tree removal allowance, presently proposed to allow a greater number of tree removals based on property size.

Electrical or building permits required for solar panel installations are not reviewed for tree removal since that would increase permit review time and cost, disincentivizing solar array installation. So that tree removal restrictions are not a barrier to install solar panels, a proposed code provision in KZC 95.30.6b allows the applicant to show how the system results in a site condition that is “equal or superior to the intent of KZC 95.” While this extremely flexible code language may not be prescriptive enough for some, it is general enough to apply to green building, renewable energy and low impact development scenarios without creating a loophole that, if exploited, negates the intent of KZC 95. Staff is only aware of one situation under the current code where trees were proposed for removal to accommodate a solar array, and this was for a large ground-mounted solar array.

Private views

Private views are not regulated by the City, as stated in Kirkland Comprehensive Plan policies. Property owners can explore guaranteed view corridors by working with adjacent property owners in developing a view covenant.

Tree Species Diversity/Biodiversity

The changing environment, impact of pests and diseases, fragmentation of open spaces and the tendency towards planting trees in monocultures all prevent species diversity, which lowers urban forest resiliency. The PC acknowledges that species diversity is an important performance measure for healthy, sustainable urban forests. However, the PC believes that species diversity requirements on private property represents regulatory over-reach, presents too many challenges with code enforcement and would increase code complexity. The PC concurs with staff that greater success could be achieved through managing public trees for species diversity and by developing tree planting incentives and programs that promote species diversity.

Incentives

The draft code preserves the current “tree credit multiplier” that awards 1.5 times the number of tree density credits for retained native conifers. In addition, a Voluntary Tree Conservation Easement template is now in place for homeowners who want to protect trees on their property in perpetuity. In addition to taking a regulatory approach, the staff from various City departments will continue to explore incentives for increasing canopy cover on public/private property, which could include tree giveaway events, homeowner training/free street tree planting events, and providing vouchers for free or discounted trees at participating nurseries.

The City Council has expressed interest in increasing public education and outreach related to KZC 95 requirements, and establishing incentives for greater code compliance and cooperation towards the City’s canopy cover goals. This could include workshops for developers, arborists and homeowners on the City’s tree code or other related topics. Prior discussions have included the idea of a City-supported citizen-led Heritage Tree Program similar to the City of Seattle-PlantAmnesty model.

Future Work Program Tasks

The City Council has expressed interest in simultaneously adopting changes to Kirkland Municipal Code 1.12.100, tree code enforcement, with the adoption of the KZC 95. Originally on the 2018-20 Planning Department Work Program, these are scheduled for adoption in early 2020. Both code changes involve comprehensive implementation phases. Code amendments to

the Holmes Point Overlay Zone, KZC Chapter 70 (HPO) are scheduled to follow, commencing in March-April 2020.

Following the HPO code adoption, an update to the Urban Forest Strategic Management Plan is identified on the Work Program. The next period canopy cover assessment should take place in 2022-2023. Studying and understanding the relationship between tree density credit requirements and tree canopy cover could be considered as a future work plan task.

Code Changes Not Included in the Draft Code at This Time:

The PC did not support prescriptive code changes that would overly complicate or significantly lengthen the code, such as mandating replacement trees by their mature size or species. Potential code changes that were discussed during the code amendment process, but not included in the draft code at this time are listed under "Approach" in the first column on the second page of Attachment 3. Many of these have been discussed under Key Questions/Issues or Related Policy Issues as code amendments that potentially would:

- Establish a 50 credit per acre quota
- Increase planting requirements
- Require native/conifer tree species
- Eliminate grove protection
- Manage public trees for their contribution to city-wide canopy cover
- Address tree protection fence issues

VII. PUBLIC OUTREACH

Standard notice for the public hearing was issued directly to:

- Kirkland Chamber of Commerce
- Kirkland Library
- Seattle Times (news tips & legal publication)
- All Neighborhood Associations
- KAN
- Houghton Community Council
- Planning Commission
- Cascade Water Alliance
- Kirkland Developers Partnership Forum
- Interested Parties
- Parties of Record
- Consulting Arborists Stakeholder List
- Eastside Audubon Society
- Courtesy Email Contact List
- Green Kirkland Stewards List

In addition to the standard notice for the public hearing, the following public outreach techniques were used to inform the public throughout the code amendment process:

- Facilitated workshops in September 2018
- Participation/presentations at the 2018 Juanita Farmer's Market, Crossing Kirkland and City Hall for All events
- Presentations at Kirkland Association of Neighborhoods (KAN) meetings

- Short urban forestry-related articles appearing in This Week in Kirkland posts
- The City of Kirkland Tree Code Amendments project webpage with notices to over 900 listserv subscribers
- Video series (4 short educational videos) providing background information to the tree code amendments, linked from the project webpage
https://www.kirklandwa.gov/depart/planning/Code_Updates/Projects/Tree_Code_Updates.htm
- YouTube, Twitter and Facebook social media feeds and posts

Notes, comments and discussions from these events are described in the Public Engagement Plan, Attachment 9 in the November 8, 2018 PC memo (https://www.kirklandwa.gov/Assets/Planning/Planning+PDFs/Planning+Commission/KZC+Chapter+95+Amendments+11082018+PC+Meeting+Packet+WEB+reduced+-+CAM18-00408_Part1.pdf).

Public comment letters, emails and verbal comments received by the Planning Commission, City Council, Houghton Community Council and staff are included as Attachment 6.

VIII. CODE AMENDMENT CRITERIA

Kirkland Zoning Code Chapter 160 Process IV establishes the requirements for State Environmental Policy Act (SEPA) compliance, public noticing, meeting and hearing proceedings, HCC jurisdiction, etc. that apply to this proposal to amend KZC 95. Kirkland Zoning Code Chapter 135.25 establishes the criteria for amendments to the text of the zoning code. The City may amend the text of the code only if it finds that:

1. The proposed amendment is consistent with the applicable provisions of the Comprehensive Plan; and
2. The proposed amendment bears a substantial relation to public health, safety, or welfare; and
3. The proposed amendment is in the best interest of the residents of Kirkland.

The proposed amendments bear a substantial relation to the public health, safety, and welfare of the residents of Kirkland. The intent of the amendments is to lessen site disturbance associated with development and protect and enhance the City's tree canopy while allowing the City to accommodate future housing and employment growth. The amendments are consistent with the provisions of the Comprehensive Plan, particularly the Natural Environment and Land Use Elements, and the Urban Forest Strategic Management Plan.

IX. ENVIRONMENTAL REVIEW

A SEPA addendum to the City of Kirkland 2015 Comprehensive Plan Update Draft and Final Environmental Impact Statement was issued October 9, 2019 and a copy of the Addendum is in the official project file.

X. NOTICE TO DEPARTMENT OF COMMERCE

Under Revised Code of Washington (RCW) 36.70A.106, the City is required to submit a Notice of Intent to Adopt any amendments to development regulations to the Washington Department of Commerce (DOC) at least sixty days prior to final adoption. DOC reviews the draft regulations to confirm that they are consistent with the Growth Management Act (GMA), and with multi-regional and region planning policies. The City submitted the Notice of Intent to Adopt the code amendments to DOC on October 10, 2019. Adoption is planned for early 2020.

XI. NEXT STEPS

Following the public hearing, the Planning Commission and the Houghton Community Council will consider all the public comments received and deliberate on their recommendation to the City Council. A tentative date for the HCC deliberation is November 25, 2019. A tentative date for the PC deliberation is December 12, 2019. Council action is planned for early 2020.

Staff will be looking for City Council direction on proposed Kirkland Municipal Code 1.12.100 (tree code enforcement) with the adoption of KZC 95. Proposed changes to KMC 1.12.100 include increased penalties for unauthorized tree removal and revising tree protection inspection procedures.

XII. ATTACHMENTS

1. Draft Kirkland Zoning Code Chapter 95
2. Tree Code Basic Requirement Chart
3. Code Effects
4. Code Comparison
5. Draft Kirkland Zoning Code Chapter 95 – Clean Copy
6. Public Comment

cc: File Number CAM18-00408

Kirkland Zoning Code
Chapter 95 – Tree Management and Required Landscaping

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 –Not Associated with No Development Activity
- ~~95.25 Sustainable Site Development~~
- 95.30 Tree Retention Associated with Development Activity
- ~~95.32 Incentives and Variations to Development Standards~~
- 95.3~~2~~⁴ Tree and Soil Protection during Development Activity
- 95.3~~4~~³ Supplemental Tree Density-Planting Requirements Related to Development Activity
- 95.40 Required Landscaping Based on Zoning District
- 95.41 Supplemental Plantings
- 95.42 ~~Minimum~~ 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 Landscaping 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 Natural Resource 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~~American Association of Nurserymen standard for trunk measurement of nursery stock, applicable to supplemental required trees. Caliper ~~of the trunk~~ shall be ~~the trunk diameter~~ measured six (6) inches above the ground for up to and including 4-inch caliper trunk sizes ~~and 12 inches above the ground for larger sizes~~.
2. Critical Root Zone (CRZ) –The area encircling the trunk of surrounding a tree at a distance from the trunk, which is equal to one (1) foot radius for every inch of trunk diameter (DBH). trunk diameter measured at 4.5 feet from grade or otherwise determined by a qualified professional. (example: one (1) foot radius per one (1) inch DBH). Example: a 24-inch DBH tree has a 24-foot radius Critical Root Zone 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 from the ground. For trees with multiple leaders at 4.5 feet height, the DBH shall be the combined cumulative total of branches greater than six (6) inches diameter at 4.5 feet above average grade. 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. DBH is also known as Diameter at Standard Height (DSH).
5. Dripline – The distance from the tree trunk, that is equal to the furthest extent of the tree's crown.
- ~~x. Hedge – 5 or more trees of the same species planted in linear formation, typically to function as a screen or barrier.~~
6. ~~Grove – A group of three (3) or more significant trees with overlapping or touching crowns.~~
- ~~7. Hazard Tree – A tree that meets all the following criteria:

 - a. ~~A tree with a combination of structural defects and/or disease which makes it subject to a high probability of failure;~~
 - b. ~~Is in proximity to moderate to high frequency targets (persons or property that can be damaged by tree failure); and~~
 - c. ~~The hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices nor can the target be removed.~~~~
6. Inner Critical Root Zone – an area half the distance of the Critical Root Zone that when impacted, may compromise the structural integrity of a tree. Example: a 24-inch DBH tree has a 12-foot radius Inner Critical Root Zone measured from the face of the trunk.
7. ISA – International Society of Arboriculture

8. Impact – A condition or activity that affects any part of a tree including the trunk, branches, and Critical Root Zone.

~~9. Limit of Disturbance – the boundary between the protected area around a tree and the allowable site disturbance as determined by a qualified professional measured in feet from the trunk.~~

~~10. Nuisance Tree – A tree that meets either 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, or roof; or~~

~~b. Has sustained damage from past maintenance practices.~~

~~The problems associated with the 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, and/or cabling to reconstruct a healthy crown.~~

~~914. Public Works Official – Designee of the Public Works Director.~~

~~1042. 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 Certification (TRAQCE) as established by the Pacific Northwest Chapter of 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.

~~13. Retention Values~~

~~14. 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.~~

~~1145. Significantly Wooded Site – A subject property that has a number of significant trees with crowns that cover at least 40 percent of the property.~~

16. 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.

~~17. Specimen Tree – A viable tree that is considered in very good to excellent health and free of major defects, as determined by the City's Urban Forester.~~

~~18. 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.~~

~~12. Topping – The reduction of a tree's size using heading cuts that shorten limbs or branches back to a predetermined crown limit. Topping is not an acceptable pruning practice and is not appropriate on established trees. Topping or pruning that results in the removal of more than 25 percent of the live crown will be considered tree removal and subject to the provisions in KMC 1.12.100, Special Provisions Related to Enforcement of Tree Regulations.~~

~~13. 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, vegetation, 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, or root plate diameter methodologies or exploratory root excavations. TPZ denotes the location of tree protection fencing.~~

~~1449. 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% at least half of the live crown; or (3) damage to roots or trunk that is likely to destroy the tree's structural integrity. Trees that have been girdled at development permit submittal will be treated as unauthorized tree removal subject to code enforcement.~~

~~1520. Viable Tree – A significant tree that a qualified professional has determined to be in good health, with a low risk of failure due to structural defects, is windfirm if isolated or remains as part of a grove and is a species that is suitable for its location.~~

16. Trees

- a. Grove – A group of three (3) or more ~~regulated significant~~ 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. Add hedge language
- b. Hazard Trees – 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 95.23.9.
- c. Landmark Tree – a regulated tree with a minimum 30-inch DBH in excellent-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: sidewalk, curb, road, driveway, parking lot, building foundation, or roof; or
- 2) Has sustained damage from past maintenance practices.

The problems associated with the 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, and/or cabling to reconstruct a healthy crown.

f. Public Tree – a tree located in parks, along public rights-of-way, on City facility property or other property owned by the City.

g. ~~Significant~~Regulated Tree – A tree that is at least six (6) inches DBH that is not listed on the Prohibited Plant List in diameter at breast height (DBH) as measured at 4.5 feet from the ground.

h. 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

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-good condition per KZC 95.30.3.

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

22. 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 of 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 by 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 permit, and/or require that replacement trees and vegetation be replanted as mitigation.~~
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/Pruning of Street Trees. ~~Other than City crews, no~~ person, directly or indirectly, shall remove any ~~significant~~ tree on any City property ~~within the City~~, or any tree in the public right-of-way, without first obtaining a tree removal permit as provided in this chapter, unless the activity is exempted in KZC 95.23.20, Tree Removal Exemptions ~~or subsection (5) of this section.~~ Public trees may only be removed if The City will not authorize removal of any public tree by

~~any private party unless the tree is determined to be a hazard or nuisance. If the removal request is for public trees, including trees in rights of way, parks and other City facilities, the appropriate Department Official may consider whether the tree(s) are now, or may be in the future, part of the City's plans for the right-of-way or other capital projects.~~

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 ~~2004~~ 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 It is unlawful for any person (other than City crews) to remove, 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 tree removal permit as provided in this chapter, unless the activity is exempted in KZC 95.20.~~

b. Street Trees. It is the responsibility of the adjacentabutting 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. ~~In order A Public Tree Pruning permit is required to trim, modify, alter, or substantially prune branches more than one-inch in diameter, or trim; modify, or alter a street tree the abutting property owner shall apply for a permit by filing a written application with the City. The City reserves the right to have City or utility crews perform routine pruning and maintenance of street trees.~~

~~2.—Tree Pruning on Private Property. A permit is not required to prune trees on private property. Pruning which results in the removal of at least 25% half of the live crown will be considered tree removal and subject to the provisions in KZC 95.23. Tree topping is not allowed. If a tree required by this chapter is smaller than six (6) inches in diameter and is topped, it must be replaced pursuant to the standards in Chapter 1.12 KMC. If a tree six (6) inches or larger in diameter is topped, the owner must have a qualified professional develop and implement a 5-year restoration pruning program.~~

95.23 Tree Pruning and Removal on Private Property with No Development Activity [Consider 95.23.1 and 2 in chart format]

~~1.—Introduction.~~ 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.

~~2.—Permit Required for Removal of Trees on Private Property or City Right-of-Way~~

1. Tree Pruning on Private Property. Tree topping is not allowed. Any private property owner may prune trees on their property without a permit with the exception of the following: ~~Pruning which results in the removal of more than half of the live crown will be considered tree removal and subject to the provisions in KZC 95.~~

a. Trees located in critical areas wetlands, streams or their buffers; ~~in geologically hazardous areas, or on properties in the Holmes Point Overlay;~~

b. Landmark trees or dedicated grove trees.

~~If a tree required by this chapter is smaller than six (6) inches in diameter and is topped, it must be replaced pursuant to the standards in Chapter 1.12 KMC. If a tree six (6) inches or larger in diameter is topped, the owner must have a qualified professional develop and implement a 5-year restoration pruning program.~~

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

Table x

<u>Lot Size</u>	<u>Maximum number of regulated trees allowed to be removed every 12 months with notification</u>
<u>Lots up to 10,000 sq. ft.</u>	<u>2</u>
<u>Lots 10,000 to 20,000 sq. ft.</u>	<u>4</u>
<u>Lots 20,000 sq. ft. or greater</u>	<u>6</u>
<u>Lots over 35,000 square feet with a Forest Management Plan</u>	<u>>6</u>

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.~~

6. ~~Tree Removal Permit Application Form. The applicable City Planning and Building Department and Public Works Department shall provide establish and maintain~~ a tree removal permit application form. Property owners requesting to remove trees shall submit a completed permit application for City review for compliance with applicable City regulations. The tree removal permit application form shall include at a minimum the following:

a. A site plan showing the approximate location of ~~regulated~~ ~~significant~~ trees, their size (DBH) and their 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. ~~33(3)~~ 23.8, Tree Replacement Requirements.

7. ~~Tree Removal~~ Permit Decision and Appeals.

a. The City shall review the application within 21 calendar days and either approve, approve with conditions or modifications, deny the application 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.

8. ~~Tree Retention and~~ Replacement Requirements.

~~—Tree Retention. For single family homes, cottages, carriage units, two/three-unit homes, two (2) trees shall be required to remain on the subject property.~~

- a. Tree Replacement. For every ~~regulated~~significant tree that is removed ~~and is not required to remain based on subsection 5(b)(1) of this section,~~ the City encourages the planting of a tree that is appropriate to the site.
- b. Public Trees – the City shall require a minimum one-for-one replacement in a suitable location.
- 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 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. For the approved removal of overgrown hedges comprised of regulated trees, replacement trees are required at a 1:1 ratio.

e. If a tree removal request is for one (1) or both of the last 2 regulated trees on single-family home, cottage, carriage unit, or two/three-unit home sites under 10,000 square feet, required to remain, a tree removal permit and one-for-one replacement is required. If the request is for the last 4 regulated trees on lots between 10,000 to 20,000 square feet, a tree removal permit and one-for-one replacement is required. If the request is for the last 6 regulated trees on lots greater than 20,000 square feet, a tree removal permit and one-for-one replacement is required. The replacement tree shall be six (6) feet tall for a conifer and 2-inch caliper for deciduous or broad-leaf evergreen tree.

f. For all other circumstances, uses not listed in subsection (5)(b)(1) of this section, a tree removal permit is required and the required tree replacement will be based on the required landscaping standards in KZC 95.40 through 95.5045.

9. Removal of Hazard or Nuisance Trees. Any private property owner seeking to remove any number of significant regulated trees from developed or undeveloped property or the public right-of-way which are a hazard or nuisance shall first obtain approval of a tree removal permit and meet the requirements of this subsection. 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.

a. Tree Risk Assessment. If the nuisance or hazard condition is not evident based on a photograph 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 supported by a report prepared by a qualified professional and approved by the City. Hazard tree risk assessment shall follow the steps in the ISA TRAQ method for developing a tree risk rating as follows [consider administrative procedures such as handouts to streamline the section below]:

- 1) Identify possible targets and estimate occupancy rate;
- 2) Inspect tree and identify tree parts that could fail and strike targets (referred to as failure mode);
- 3) For each significant failure mode identified:
 - i. The likelihood of failure is assessed;
 - ii. The likelihood of a tree part impacting a target is assessed;
 - iii. The likelihood of a tree failure impacting a target is assessed;
 - iv. Consequences of failure are estimated;
 - v. The risk is designated pursuant to the matrix in Table xx;
 - vi. Possible mitigation treatments to reduce the risk are identified;
 - vii. The risk is again designated pursuant to the matrix in Table xx after mitigation treatment is completed.

b. When assessing the risk of a tree, the Planning Official shall evaluate the tree based on existing conditions and shall exclude possible impacts caused by new development, any land alteration activity, or other similar such activities that might otherwise unnaturally cause the risk rating to increase.

c. The following table is from the ISA TRAQ method and denotes the risk rating matrix used to assess levels of tree risk as a combination of 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:

Table xx Tree Risk Rating Matrix

<u>Likelihood of Failure and Impact</u>	<u>Consequences</u>			
	<u>Negligible</u>	<u>Minor</u>	<u>Significant</u>	<u>Severe</u>
<u>Very likely</u>	<u>Low risk</u>	<u>Moderate risk</u>	<u>High Risk</u>	<u>Extreme Risk</u>
<u>Likely</u>	<u>Low risk</u>	<u>Moderate risk</u>	<u>High risk</u>	<u>High risk</u>
<u>Somewhat Likely</u>	<u>Low risk</u>	<u>Low risk</u>	<u>Moderate risk</u>	<u>Moderate risk</u>
<u>Unlikely</u>	<u>Low risk</u>	<u>Low risk</u>	<u>Low risk</u>	<u>Low risk</u>

d. The consequences listed in Table xx have meanings as follows:

- i. Extreme Risk. This category applies to trees in which failure is “imminent” and there is a high likelihood of impacting a target, and the consequences of the failure are “severe.”
- ii. High Risk. This category applies to situations in which consequences are significant and likelihood is “very likely” or “likely,” or when consequences are “severe” and likelihood is “likely.”
- iii. Moderate Risk. This category applies to trees in which consequences are “minor” and likelihood is “very likely” or “likely” or when likelihood is “somewhat likely” and the consequences are “significant” or “severe.”
- iv. Low Risk. This category applies to trees in which consequences are “negligible” and likelihood is “unlikely”; or when consequences are “minor” and likelihood is “somewhat likely.”
- v. Potential targets are permanent structures or an area of moderate to high use. Where a target does not exist, applicants should consider routine pruning and maintenance to mitigate hazards.
- vi. Where a tree is found to have a high or extreme risk, the Planning Official may authorize hazard pruning to mitigate the risk rather than removing the entire tree.
- vii. If the Planning Official assesses a tree to have a high or extreme risk and mitigation of the risk through pruning or moving of potential targets is not feasible, the Planning Official shall designate the tree a hazard tree.

10. Trees in Critical Areas or Critical Areas Buffers. See Chapters 85 and 90 KZC

a. Hazard or nuisance trees in ~~critical areas~~wetlands, streams and their buffers shall be removed in a manner that creates a wildlife snag;

b. If creation of a 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 ~~critical area~~ wetland, stream, and their buffers shall be replaced with one (1) to three (3) native trees ~~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 ~~critical area, critical area buffer or geologic hazard areas~~wetland, stream or their buffers unless determine to be nuisance or hazardous 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

~~Street Trees. Street trees may only be removed if determined to be a hazard or nuisance. If the removal request is for street trees, the Public Works Official may consider whether the tree(s) are now, or may be in the future, part of the City’s plans for the right-of-way. The City shall require a one-for-one tree replacement in a suitable location.~~

11. Forest Management Plan.

a. A Forest Management Plan ~~may~~must be submitted for developed, ~~heavily~~significantly wooded sites (~~over 40 percent canopy coverage~~) of at least 35,000 square feet in size ~~where tree removal exceeds the allowances of KZC 95.23.2 in which removal of more than two (2) any number of trees in excess of the allowable tree removal per KZC 95.23 is requested~~ and is not exempt under KZC 95.20, Tree Removal Exemptions. A Forest Management Plan must be developed by a qualified professional and shall include the following:

- 1) A site plan depicting the location of all regulated significant 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 size (DBH), species, and condition of each tree;
 - 2) Identification of trees to be removed, including reasons for their removal and a description of low impact removal techniques pursuant to subsection ~~(11)(b)(5)(e)(2)~~ of this section;
 - 3) A reforestation plan that includes location, size, species, and timing of installation;
- b. The following Forest Management Plan standards shall apply:
- 1) Trees to remain should be dominant or co-dominant in the stand, healthy and windfirm.
 - 2) No removal of trees from critical areas and their buffers, unless otherwise permitted by this chapter.
 - 3) No removal of Landmark trees or dedicated groves specimen trees, unless otherwise permitted by this chapter.
 - 4) No removal of healthy trees that would cause trees on adjacent properties to become hazardous.
 - 5) 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.
 - 6) 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.
 - 7) Removal of tree debris shall be done pursuant to Kirkland Fire Department standards.
 - 8) Recommended maintenance prescription for retained trees with a specific timeline ~~for such management.~~
- c. the Planning Official may require a performance security pursuant to KZC 175 in order to assure reforestation requirements of the approved forest management plan.

95.25 Sustainable Site Development

~~All activities regulated by this chapter shall be performed in compliance with the applicable standards contained in this chapter, unless the applicant demonstrates that alternate measures or procedures will be equal or superior to the provisions of this chapter in accomplishing the purpose and intent of this chapter as described in KZC 95.05.~~

~~Applicants requesting alternative compliance shall submit a site assessment report prepared by a qualified professional detailing how the proposed alternative measures will be equal or superior to the benefits provided by the established trees to be removed. Qualifying projects shall implement sustainable site development strategies throughout the construction process as well as contain measurable performance standards for the techniques used. Examples of sustainable site development include building placement with minimal site impact, habitat protection, water conservation, heat island reduction, storm water flow runoff control and water quality, and utilization of the site's natural services such as solar and wind. Requests to use alternative measures and procedures shall be reviewed by the Planning Official, who may approve, approve with conditions, or deny the request.~~

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 retain as many viable trees as possible on a developing site while still allowing the development proposal to move forward in a timely manner. To that end, the City requires approval of a tree retention plan in conjunction with all development permits resulting in site disturbance and for any tree removal on developed sites not exempted by KZC 95.20. This section includes provisions that allow development standards to be modified in order to retain viable significant trees.~~

~~In order to make better decisions about tree retention, particularly during all stages of development, tree retention plans will require specific information about the existing trees before removal is allowed. Specific tree retention plan review standards provided in this section establish tree retention priorities, incentives, and variations to development standards in order to facilitate preservation of viable trees.~~

~~A minimum tree density approach is being used to retain as many viable trees as possible with new development activity. The requirement to meet a minimum tree density applies to new single family homes, cottages, carriage units, two/three-~~

~~unit homes, and new residential subdivisions and short subdivisions. If such a site falls below the minimum density with existing trees, supplemental planting is required. A tree density for existing trees to be retained is calculated to see if new trees are required in order to meet the minimum density for the entire site. Supplemental tree location priority is set as well as minimum size of supplemental trees to meet the required tree density.~~

~~The importance of effective protection of retained trees during construction is emphasized with specific protection standards in the last part of this section. These standards must be adhered to and included on demolition, grading and building permit plans as necessary.~~ Applicants for development are encouraged to confer with City staff as early in the design process as possible so that the applicable tree planting and retention concepts 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.

~~Properties within jurisdiction of the Shoreline Management Act are subject to additional tree retention and protection regulations as set forth in Chapter 83 KZC.~~

~~Properties within the Holmes Point Overlay zone are subject to additional tree retention and protection regulations as set forth in Chapter 70 KZC~~

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 components of a tree retention plan at the applicant's expense. If proposed development activities call for more than one (1) Tree Retention Plan element component, the more stringent tree retention plan component shall apply; provided, that the Planning Official may require the more stringent of, or a combination of tree plan elements components 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.

~~The chart in subsection (5) of this section sets forth the tree retention plan requirements for development activities and associated tree removal. Applicants for development are encouraged to confer with City staff as early in the design process as possible so that the applicable tree planting and retention concepts can be incorporated into the design of the subject property. The Planning Official may waive a component of the tree retention plan if the Planning Official determines that the information is not necessary.~~

2. Tree Retention Plan Review Applicability. Unless otherwise exempt pursuant to KZC 95.20, any proposed development of the subject property requiring approval through a building permit, land surface modification permit, and/or demolition permit, or Design Review, Process I, IIA or IIB, described in Chapters 142, 145, 150 and 152 KZC respectively, shall include a Tree Retention Plan, to be considered as part of that process. Arborist Reports in which the field work occurred over 3 years ago may need to be updated with current data.

~~Based on the tree retention plan information submitted by the applicant and the Planning Official's evaluation of the trees relative to the proposed development on the subject property, the Planning Official shall designate each tree as having a high, moderate, or low retention value as defined in KZC 95.10, Definitions, for application towards the regulations in this chapter.~~

a. Exception. Additions and remodels in which the total square footage of the proposed improvements is less than 50 percent of the total square footage of the existing improvements on the subject property and no development activity is proposed within the CRZ of Tier 1 or Tier 2 trees. The City requires approval of a Tree Retention Plan in conjunction with all development permits resulting in site disturbance and for any tree removal on developed sites except for additions and remodels in which the total square footage of the proposed improvements is less than 50 percent of the total square footage of the existing improvements on the subject property

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 related 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.

~~The Planning Official may waive a component of the tree retention plan if the Planning Official determines that the information is not necessary.~~

3. Tree Retention Plan Submittal Requirements Components^[DP1]. The Tree Retention Plans shall contain the following information as specified in the chart in subsection (5) of this section unless waived by the Planning Official:

a. ~~A tree inventory.~~ The inventory may be noted on the site plan or in the arborist report, listing containing the following:

- 1) ~~A numbering system of a~~ All existing regulated significant trees on the subject property identified by a consistent the same numbering system in the arborist report, site plan and onsite tree tags or flagging. (with corresponding tags on trees) The inventory must also include regulated significant trees that are on adjacent properties that appear to have Critical Root Zones (CRZ) with driplines extending onto ~~over~~ the subject property line;
- 2) ~~The Critical Root Zone (CRZ) and the proposed Tree Protection Zone (TPZ) distances Limits of Disturbance (LOD~~ of all existing regulated significant trees specified in feet from the face of the tree trunk. The inventory must also include the approximate CRZ and proposed TPZ LOD of regulated significant trees that appear to have Critical Root Zones (CRZ) extending onto the subject property);
- 3) Size (DBH);
- 4) Proposed tree ~~status (trees to be removed or retained);~~
- 5) ~~Brief general health or~~ Condition rating of regulated these trees (i.e.: poor, fair, good, excellent, etc.) per KZC 95.32.3(c);
- 6) Tree ~~type or species~~ and/or common name.
- 7) Identification of trees that meet the definition of Tier 1 and Tier 2 trees.

b. Site plan. ~~The site plan must be drawn to scale showing depicting~~ the following:

- 1) 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;~~
- 2) Accurate Surveyed location of ~~regulated significant~~ trees on the subject property ~~(surveyed locations may be required)~~. The site plan must also ~~show include~~ the approximate trunk location ~~and critical root zone of potentially impacted regulated significant~~ trees that are on adjacent properties ~~with driplines extending over the subject property line;~~
- 3) Trees labeled corresponding to the tree inventory numbering system;
- 4) ~~Location of tree protection measures;~~
- 4) Indicate the limits of disturbance Critical Root Zones drawn to scale around all trees potentially impacted by site disturbances resulting from grading, demolition, or construction activities (including approximate ~~LOD-CRZs~~ of all potentially impacted trees that are on adjacent properties off-site trees with overhanging driplines);
- 5) Location of tree protection fence at the proposed Tree Protection Zone, with distances from trunk to fence noted on the site plan. Specific tree protection standards during construction are described in 95.32 KZC. These standards must be adhered to and included on demolition, grading and building permit plans;
- 6) ~~Proposed tree status (Trees proposed to be removed, or retained)~~ noted by an 'X' or by ghosting out;
- 7) Proposed locations of any supplemental trees and any required trees in order to meet tree density credits or the minimum number of trees as outlined in KZC 95.342.

c. ~~An Arborist report~~ with containing the following:

- 1) ~~A complete description of each tree's health, condition, and viability;~~ The condition rating for each regulated tree's suitability for retention based on its health and structure, including regulated trees that appear to have Critical Root Zones (CRZ) extending onto the subject property. Suitability for retention shall be assessed using the following criteria:

<u>Condition Rating</u>	<u>Tree Structure</u> <i>Root flare, trunk condition, branch assembly</i>	<u>Tree Health</u> <i>Twig and leaf density, size and growth, pest/pathogen issues</i>
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<u>Excellent</u>	<u>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.</u>	<u>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.</u>
<u>Good</u>	<u>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.</u>	<u>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.</u>
<u>Fair</u>	<u>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.</u>	<u>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.</u>
<u>Poor</u>	<u>High to imminent risk trees (hazard). Structural problems cannot be corrected. Failure may occur at any time.</u>	<u>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.</u>

2) For trees not suitable viable for retention, a description of the reason(s) for removal must be given 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.);

3) A description of the method(s) used to determine the Tree Protection Zone/limits of disturbance (i.e., Critical Rroot Zzone formula, root plate diameter, exploratory root excavations or a case-by-case basis description for individual trees);

4) Any special instructions specifically outlining any work proposed within the Critical Root Zone of retained trees limits of the disturbance protection area (i.e., additional protection from soil compaction, hand-digging, tunneling or boring, root pruning, mitigating any grade changes, clearing, 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 and be in accordance with the tree protection standards as outlined in KZC 95.342, including any anticipated changes to tree protection fence location or other activity within the Critical Root Zone of retained trees during project construction (i.e. material delivery, equipment access, landscaping, etc.);

6) Describe the impact of necessary tree removal to the remaining trees, including those in a grove or on adjacent properties;

7) The suggested location and species of supplemental trees to be used when required. The report shall include planting and maintenance specifications pursuant to KZC 95.50 and 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.

The applicant shall submit a Tree Retention Plan that includes the components identified in the following chart based on the proposed development activity. In order to retain regulated trees, the applicant should shall pursue provisions in KZC 95 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 permit Chapters 142, 145, 150 and 152 KZC, respectively.

TREE RETENTION PLAN

Development Activity	Minor ⁽⁴⁾⁽³⁾— Single-Family, or two attached, detached, or stacked dwelling units, and related demolition and land surface modification applications	Major ⁽²⁾⁽³⁾— Single-Family, or two attached, detached, or stacked dwelling units, and related demolition and land surface modification applications	Multifamily, Commercial, any other use other than residential, and related demolition and land surface modification applications	Short Plat, Subdivisions, cottages, carriage units, two/three-unit homes, and related demolition and land surface modification applications (see KZC 95.30(6)(a), Phased Review, for additional standards)
Required Components				

TREE INVENTORY AS DESCRIBED IN KZC 95.30(4)(a) FOR:

All significant trees on the subject property	-	X	X	X
Significant trees potentially impacted by proposed development activity	X	-	-	-

SITE PLAN AS DESCRIBED IN KZC 95.30(4)(b) TO INCLUDE:

Surveyed tree locations if required by the Planning Official	-	X	X	-
Surveyed tree locations	-	-	-	X
A final landscape plan showing retained trees	-	-	X	-

REQUIREMENTS IN KZC 95.30(4)(c) SHALL BE PREPARED BY A QUALIFIED PROFESSIONAL AND APPLY TO:

Significant trees within required yards or within 10 feet of any side property line	-	X	-	-
Significant trees potentially impacted by proposed development activity as determined by the Planning Official	-	-	X	-
Proposed removal of trees with a high retention value in required landscaping areas	-	-	X	-
All significant trees	-	-	-	X

TREE RETENTION STANDARDS

TREE RETENTION PLAN

Development Activity	Minor ⁽¹⁾⁽³⁾— Single-Family, or two attached, detached, or stacked dwelling units, and related demolition and land surface modification applications	Major ⁽²⁾⁽³⁾— Single-Family, or two attached, detached, or stacked dwelling units, and related demolition and land surface modification applications	Multifamily, Commercial, any other use other than residential, and related demolition and land surface modification applications	Short Plat, Subdivisions, cottages, carriage units, two/three-unit homes, and related demolition and land surface modification applications (see KZC 95.30(6)(a), Phased Review, for additional standards)
Applicant is encouraged to retain viable trees				X ⁽⁴⁾ - - -
Retain and protect trees with a high retention value to the maximum extent possible				- X ⁽⁴⁾ X ⁽⁴⁾ X ⁽⁴⁾
Retain and protect trees with a moderate retention value if feasible				- X X X
Preservation and maintenance agreements pursuant to KZC 95.51 are required for all remaining trees on the subject property				X X X X ⁽⁵⁾
TREE DENSITY				
Tree density requirements shall apply as required in KZC 95.33				- X - X
A minimum of two trees must be on the lot following the requirement set forth in KZC 95.33(4)				X - - -
LANDSCAPING				
Preserved trees in required landscaping areas shall apply toward required landscaping requirements				- - X -

(1) Applicable when new development, redevelopment, or development in which the total square footage of the proposed improvements is less than 50 percent of the total square footage of the existing improvements on the subject property.

(2) Applicable when new development, redevelopment, or development in which the total square footage of the proposed improvements is more than 50 percent of the total square footage of the existing improvements on the subject property.

(3) For lots created through a short subdivision, subdivision, or planned unit development with an approved Tree Retention Plan, the applicant must comply with the Tree Retention Plan approved with the short subdivision, subdivision, or planned unit development unless subsection (6)(a) of this section, Phased Review, applies.

(4) To retain trees with a high retention value, the applicant shall pursue, where feasible, applicable variations in the development standards of this code as outlined in KZC 95.32.

(5) Prior to short plat or subdivision recording.

The City does not require tree retention efforts that would reduce maximum allowed density or number of lots, maximum allowed Floor Area Ratio (FAR) 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:

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, is a configuration of 40-foot wide by 40-foot deep building footprint, in combination with 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 a Tier 1 tree(s).

2) The applicant shall pursue and the Planning Official is authorized to require site plan alterations ~~such as minor~~ adjustments to the location of building footprints, adjustments to the location of driveways and 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 front yard on corner lots in the RSA and RSX zones and selection of the side yard to meet the 15-foot total in the RS zone
- 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 ~~adjustments to the location of driveways and access ways~~
- h) With short plats and subdivisions, clustering per Section 95.30.7.b, rearrange property lines, relocate access roads and relocate 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 these 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) 10-foot front and 5-foot rear required yards
- b) Garage requirements of KZC 115.43
- c) 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
- c) Allow 18-foot by 18-foot parking pads
- d) Modify right-of-way frontage improvement requirements such as waive landscape strip, etc.
- e) Allow up to a five-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.)
- f) With short plats and subdivisions, allow 3-foot required side from internal property lines.

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 front building facades wider than 50 feet, the maximum building footprint shall be less 10 percent of the distance between the required side 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 width, which totals a 54' maximum building envelope width.

2) The applicant shall pursue and the Planning Official is authorized to require site plan alterations, including:

- a) Shift or flip (mirror) the location of building footprints and driveways

b) Select 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 in the RS zone

c) Reduce required front yard by five-feet and reduce rear yards that are not directly adjacent to another parcel's rear yard but that are adjacent to an access easement or tract may be reduced by five-feet;

d) Shift the building footprint on the lot to take advantage of the modifications/reductions allowed in subsection 4).

e) Redesign deck, patio, path

f) Avoid retaining wall/rockeries within the CRZ where possible

3) Bore under roots within TPZ for utilities less than 2 inches diameter

4) The applicant may pursue these 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) 10-foot front and 5-foot rear required yards

b) Garage requirements of KZC 115.43

c) 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 (no landscape strip, etc.)

e) Clustering with short plats and subdivisions subject to Section 95.30.7.b.

5. Tree Retention Plan Review Standards for Development of Multifamily, Commercial, Mixed Use, and Cottage/Carriage Development. Other Incentives and Variations to Development Plans In addition to the variations described above, the Planning Official is authorized to allow:

~~Requirements of the Kirkland Zoning Code may be modified by the Planning Official as outlined below when such modifications would further the purpose and intent of this chapter as set forth in KZC 95.05 and would involve trees with a high or moderate retention value.~~

To retain regulated trees in required yards and/or required landscape areas, the applicant shall pursue provisions in KZC 95 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 permit 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 landscape strip, etc.

h. ~~Reductions or Variations to~~ Common Recreational Open Space area, width, or composition of required common recreational open space ~~may be granted.~~

~~i. b.—Variations in parking lot design and/or access driveway requirements may be granted when the Public Works and Planning Officials both determine the variations to be consistent with the intent of City policies and codes.~~

~~j. c.—Storm Water. RVariations to the requirements pertaining to stormwater if approved by the Public Works Official under KMC 15.52.060.~~

~~3.—Required Yards. Initially, the applicant shall pursue options for placement of required yards as permitted by other sections of this code, such as selecting one (1) front required yard in the RSX zone and adjusting side yards in any zone to meet the 15-foot total as needed for each structure on the site. The Planning Official may also reduce the front, side or rear required yards; provided, that:~~

~~a.—No required side yard shall be less than five (5) feet; and~~

~~b.—The required front yard shall not be reduced by more than five (5) feet in residential zones. There shall not be an additional five (5) feet of reduction beyond the allowance provided for covered entry porches;~~

~~c.—Rear yards that are not directly adjacent to another parcel's rear yard but that are adjacent to an access easement or tract may be reduced by five (5) feet;~~

~~d.—No required yard shall be reduced by more than five (5) feet in residential zones.~~

~~Additional Variations. In addition to the variations described above, the Planning Official is authorized to require site plan alterations to trees with a high retention value. Such alterations include minor adjustments to the location of building footprints, adjustments to the location of driveways and access ways, or adjustment to the location of walkways, easements or utilities. The Planning Official and the applicant shall work in good faith to find reasonable solutions.~~

~~6. 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:~~

~~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 would result in either of the following:~~

~~1) Tree(s) that are unsuitable for retention per the condition ratings in KZC 95.30.3.c~~

~~2) The retention of a Tier 2 tree compromises a Tier 1 tree's suitability for retention.~~

~~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 that will be equal or superior to the provisions of KZC 95.~~

~~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 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.—Phased Review.~~

~~1) If during the short plat or subdivision review process the location of all proposed improvements, including the building footprint, utilities, and access, was not able to be established, the applicant may submit a Tree Retention Plan that addresses trees only affected by the known improvements at the time of application. Tree removal shall be limited to those affected areas.~~

~~2) A new Tree Retention Plan shall be required at each subsequent phase of the project as more information about the location of the proposed improvements is known subject to all of the requirements in this section.~~

~~3) Phased review of Tree Retention Plans is not permitted in the Holmes Point Overlay zone. In the HPO zone, subdivision or short plat applications shall provide a comprehensive review of Tree Retention Plans as outlined in subsections (2) through (5) of this section.~~

~~b. Modifications to Tree Retention Plan for Short Plats and Subdivisions. A Tree Retention Plan modification request shall contain information as determined by the Planning Official based on the requirements in subsection (5) of this section, Tree Retention Plan. The fee for processing a modification request shall be established by City ordinance.~~

~~a. Modifications For Tree Retention Plans approved during the short plat or subdivision review process that established the location of all proposed improvements, including the building footprint, utilities, and access, a Modifications to the Tree Retention Plan may be approved as follows pursuant to the standards of KMC 22.20.025 and the following criteria:~~

~~1) Modification — General. The Planning Official may approve minor modifications to the approved Tree Retention Plan in which the minimum tree density credits associated with trees identified for retention are not decreased.~~

~~1) Modification Prior to Tree Removal. The Planning Official Planning Director may approve a modification request to remove Tier 1 or Tier 2 trees decrease the minimum number of tree density credits associated with trees previously identified for retention if:~~

~~a) Regulated trees inventoried in the original Tree Retention Plan have not yet been removed; and~~

~~b) The Planning Official shall not approve or deny a modification pursuant to this section without first providing Notice of the modification request is provided consistent with the noticing requirements for the short plat.~~

~~2) Modification after Tree Removal. A modification request is required to remove trees decrease the minimum number of tree density credits associated with trees previously identified for retention after which trees inventoried in the original Tree Retention Plan have already been removed. Such a request may be approved by the Hearing Examiner Planning Director only if the following are met:~~

~~a) The need for the modification was not known and could not reasonably have been known before the tree retention plan was approved;~~

~~b) The modification is necessary because of special circumstances which 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;~~

~~c) There is no practicable or feasible alternative development proposal that results in fewer additional tree removals;~~

~~d) The Hearing Examiner Planning Director shall not approve or deny a modification pursuant to this section without the Planning Official first providing notice of the modification request consistent with the noticing requirements for the short plat and providing opportunity for comments for consideration by the Hearing Examiner Planning Director; and~~

~~e) Said comment period shall not be less than 14 calendar days.~~

~~f) The fee for processing a modification request shall be established by City ordinance.~~

~~b. Lot Clustering. Clustering of lots associated with short plats and subdivisions. The Planning Director may approve variations to minimum Lot Size, maximum Floor Area Ratio and Lot Coverage requirements in order to facilitate retention of Tier 1 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 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.

95.32 Incentives and Variations to Development Standards

~~In order to retain trees, the applicant should pursue provisions in Kirkland's codes that allow development standards to be modified. Examples include but are not limited to number of parking stalls, right-of-way improvements, lot size reduction under Chapter 22.28 KMC, lot line placement when subdividing property under KMC Title 22, Planned Unit Developments, and required landscaping, including buffers for lands use and parking/driving areas.~~

~~Requirements of the Kirkland Zoning Code may be modified by the Planning Official as outlined below when such modifications would further the purpose and intent of this chapter as set forth in KZC 95.05 and would involve trees with a high or moderate retention value.~~

- ~~1.—Common Recreational Open Space. Reductions or variations of the area, width, or composition of required common recreational open space may be granted.~~
- ~~2.—Parking Areas and Access. Variations in parking lot design and/or access driveway requirements may be granted when the Public Works and Planning Officials both determine the variations to be consistent with the intent of City policies and codes.~~
- ~~3.—Required Yards. Initially, the applicant shall pursue options for placement of required yards as permitted by other sections of this code, such as selecting one (1) front required yard in the RSX zone and adjusting side yards in any zone to meet the 15-foot total as needed for each structure on the site. The Planning Official may also reduce the front, side or rear required yards; provided, that:

 - ~~a.—No required side yard shall be less than five (5) feet; and~~
 - ~~b.—The required front yard shall not be reduced by more than five (5) feet in residential zones. There shall not be an additional five (5) feet of reduction beyond the allowance provided for covered entry porches;~~
 - ~~c.—Rear yards that are not directly adjacent to another parcel's rear yard but that are adjacent to an access easement or tract may be reduced by five (5) feet;~~
 - ~~d.—No required yard shall be reduced by more than five (5) feet in residential zones.~~~~
- ~~4.—Storm Water. Requirements pertaining to stormwater may be varied if approved by the Public Works Official under KMC 15.52.060.~~
- ~~5.—Additional Variations. In addition to the variations described above, the Planning Official is authorized to require site plan alterations to retain trees with a high retention value. Such alterations include minor adjustments to the location of building footprints, adjustments to the location of driveways and access ways, or adjustment to the location of walkways, easements or utilities. The Planning Official and the applicant shall work in good faith to find reasonable solutions.~~

95.33 Tree Density Requirement

~~The required minimum tree density 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. For individual lots in a short subdivision or subdivision with an approved Tree Retention Plan, the tree density shall be calculated for each lot within the short plat or subdivision. The tree density may consist of existing trees pursuant to the tree's retention value, supplemental trees or a combination of existing and supplemental trees pursuant to subsection (2) of this section. Existing trees transplanted to an area on the same site shall not count toward the required density unless approved by the Urban Forester based on transplant specifications provided by a qualified professional that will ensure a good probability for survival.~~

- ~~1.—Tree Density Calculation. In calculating tree density credits, tree credits may be rounded up to the next whole number from a 0.5 or greater value. 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 not included as lot area with the approved short plat shall be excluded from the area used for calculation of tree density.~~

~~Tree density calculation for existing individual trees:~~

~~a. Diameter breast height (DBH) of the tree shall be measured in inches.~~

~~b. The tree credit value that corresponds with DBH shall be found in Table 95.33.1. Existing native conifers (or other conifer species as approved by the Urban Forester) shall count 1.5 times credits for retention.~~

**Table 95.33.1
Tree Density for Existing Significant Trees
(Credits per minimum diameter – DBH)**

DBH	Tree Credits	DBH	Tree Credits	DBH	Tree Credits
3–5"	0.5				
6–10"	1	24"	8	38"	15
12"	2	26"	9	40"	16
14"	3	28"	10	42"	17
16"	4	30"	11	44"	18
18"	5	32"	12	46"	19
20"	6	34"	13	48"	20
22"	7	36"	14	50"	21

~~Example: a 7,200-square-foot lot would need five (5) tree credits ($7,200/43,560 = 0.165 \times 30 = 4.9$) or five (5)). The tree density for the lot could be met by retaining one (1) existing 16-inch deciduous tree and one (1) existing 6-inch deciduous tree on-site. The same 7,200-square-foot lot would meet the required five (5) tree credits by retaining one (1) existing 14-inch conifer.~~

~~2. Supplemental Trees Planted to Meet Minimum Density Requirement. For sites and activities requiring a minimum tree density and where the existing trees to be retained do not meet the minimum tree density requirement, supplemental trees shall be planted to achieve the required minimum tree density.~~

~~3. Tree Location. In designing a development and in meeting the required minimum tree density, the trees shall be planted in the following order of priority:~~

~~a. On Site. The preferred locations for new trees are:~~

- ~~1) In preserved groves, critical areas or their buffers.~~
- ~~2) Adjacent to storm water facilities as approved by Public Works under KMC 15.52.060.~~
- ~~3) Entrance landscaping, traffic islands and other common areas in residential subdivisions.~~
- ~~4) Site perimeter—The area of the subject property that is within 10 feet from the property line.~~
- ~~5) On individual residential building lots.~~

~~b. Off Site. When room is unavailable for planting the required trees on site, then they may be planted at another approved location in the City.~~

~~c. City Forestry Account. When the Planning Official determines on-site and off-site locations are unavailable, then the applicant shall pay an amount of money approximating the current market value of the supplemental trees into the City forestry account.~~

~~4. Minimum Size and Tree Density Value for Supplemental Trees. The required minimum size of the supplemental tree worth one (1) tree credit shall be six (6) feet tall for Thuja/Arborvitae or four (4) feet tall for native or other conifers and 2-inch caliper for deciduous or broad-leaf evergreen tree. Additional credits may be awarded for larger supplemental trees. The installation and maintenance shall be pursuant to KZC 95.50 and 95.51 respectively.~~

95.324 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 pursuant to the following standards:

1. Tree Cutting in Advance of Issuance of Land Development Permit. There shall be no tree removal or land clearing on any site for the sake of preparing that site for future development.

24. 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.

32. Tree Protection Fence~~Protective Barrier~~. Before development, land clearing, filling or any land alteration, the applicant shall:

a. Erect and maintain readily visible temporary protective tree fencing at along 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~~protective tree 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. 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~~barriers~~; 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 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.

fd. Maintain the Tree Protection Fence~~protective barriers~~ in its approved location ~~place~~ for the duration of the project until the Planning Official authorizes its~~their~~ removal.

ge. 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.

hf. In addition to the above, the Planning Official may require the following:

1) If equipment is authorized to operate within the Critical Root~~protected~~ Zzone, 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.

- 2) Minimize root damage by hand-excavating a 2-foot-deep trench, at edge of Critical Rfoot Zzone, 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.

43. Grade.

- a. The grade shall not be elevated or reduced within the Critical Rfoot Zzone 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 Rfoot Zzone 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 Rfoot Zzone, 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 Rfoot Zzone 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. 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.

95.334 Supplemental Tree Density 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. Supplemental Trees Planted to Meet Tree Density Requirements. The required ~~minimum~~ 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. ~~For individual lots in a short subdivision or subdivision with an approved Tree Retention Plan, the tree density shall be calculated for each lot within the short plat or subdivision. The tree density may consist of existing trees pursuant to the tree's retention value, supplemental trees or a combination of existing and supplemental trees pursuant to subsection (2) of this section. Existing trees transplanted to an area on the same site shall not count toward the required density unless approved by the Urban Forester based on transplant specifications provided by a qualified professional that will ensure a good probability for survival. The tree density may consist of existing trees pursuant to the tree's retention value, supplemental trees or a combination of existing and supplemental trees pursuant to subsection (2) of this section.~~

~~Tree Density Calculation. In calculating tree density credits, tree credits may be rounded up to the next whole number from a 0.5 or greater value. 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 not included as lot area with the approved short plat shall be excluded from the area used for calculation of tree density.~~

~~Tree density calculation for existing individual trees:~~

- ~~a.—Diameter breast height (DBH) of the tree shall be measured in inches.~~

~~b.—The tree credit value that corresponds with DBH shall be found in Table 95.33.1. Existing native conifers (or other conifer species as approved by the Urban Forester) shall count 1.5 times credits for retention.~~

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 as approved by the ~~Planning Official~~Urban Forester) shall count 1.5 times credits for retention. For individual lots in a short subdivision 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. Trees located 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 ~~shall not count towards tree density credit requirements.~~

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

~~e.—The total resulting tree density credits on a lot shall result from retained existing trees, supplemental trees, or a combination of the two.~~

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

DBH	Tree Credits	DBH	Tree Credits	DBH	Tree Credits
3 – 5"	0.5				
6 – 10"	1	24"	8	38"	15
12"	2	26"	9	40"	16
14"	3	28"	10	42"	17
16"	4	30"	11	44"	18
18"	5	32"	12	46"	19
20"	6	34"	13	48"	20
22"	7	36"	14	50"	21

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: a 7,200-square-foot lot would need five (5) tree credits (7,200/43,560 = 0.165 X 30 = (4.9) or five (5)). The tree density for the lot could be met by retaining one (1) existing 16-inch deciduous tree and one (1) existing 6-inch deciduous tree on site. The same 7,200-square-foot lot would meet the required five (5) tree credits by retaining one (1) existing 14-inch conifer~~

Example: an 8,500-square-foot lot would need six (6) tree credits (8,500/43,560 = 0.195 X 30 = 5.8, or six (6) credits). The tree density for the lot would be exceeded/met by retaining two (2) existing Landmark 30-inch DBH trees and two (2) existing 12-inch DBH Tier 2 conifer trees (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.

~~—Supplemental Trees Planted to Meet Minimum Density Requirement. For sites and activities requiring a minimum tree density and where the existing trees to be retained do not meet the minimum tree density requirement, supplemental trees shall be planted to achieve the required minimum tree density.~~

~~4. Minimum Size and Tree Density Value for Supplemental Trees. The required minimum size of the supplemental tree worth one (1) tree credit shall be six (6) feet tall for Thuja/Arborvitae or 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 supplemental 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 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.

~~53- Supplemental Tree Locations. In designing a development and in meeting the required minimum tree density, the supplemental 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:

- ~~51) On individual residential building lots~~
- ~~42) In preserved groves, critical areas or their buffers.~~
- ~~23) Adjacent to storm water facilities as approved by Public Works under KMC 15.52.060.~~
- ~~44) Site perimeter – The area of the subject property that is within 10 feet from the property line.~~
- ~~35) Entrance landscaping, traffic islands and other common areas with the development of ~~in~~ residential subdivisions.~~

b. Off-Site. When room is unavailable for planting the required trees on site, then they may be planted at another approved location in the City. Trees that are planted offsite from the subject property may be required to be preserved in perpetuity.

~~6. Payment in Lieu of Planting City Forestry Account. 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 approximating the current market value of the supplemental trees 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.

~~b.—Chapter 85 KZC, Geologically Hazardous Areas, addresses the retention of vegetation on steep slopes.~~

~~c.—Chapter 90 KZC, Critical Areas, addresses vegetation within critical areas and critical area buffers.~~

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, ~~and KZC 95.32, Incentives and Variations to Development Standards,~~ 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. Supplement. 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 95.3~~2~~²⁴ to ensure the protection of significant existing vegetation and soil.

3. 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.

95.41 Supplemental Plantings

1. General. The applicant shall provide the supplemental 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 a critical area-critical area buffer or~~

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.

2. 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.

95.42 ~~Minimum~~-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)			
D	Must comply with subsection (2) (Buffering Standard 2)				
E					
Footnotes:	*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

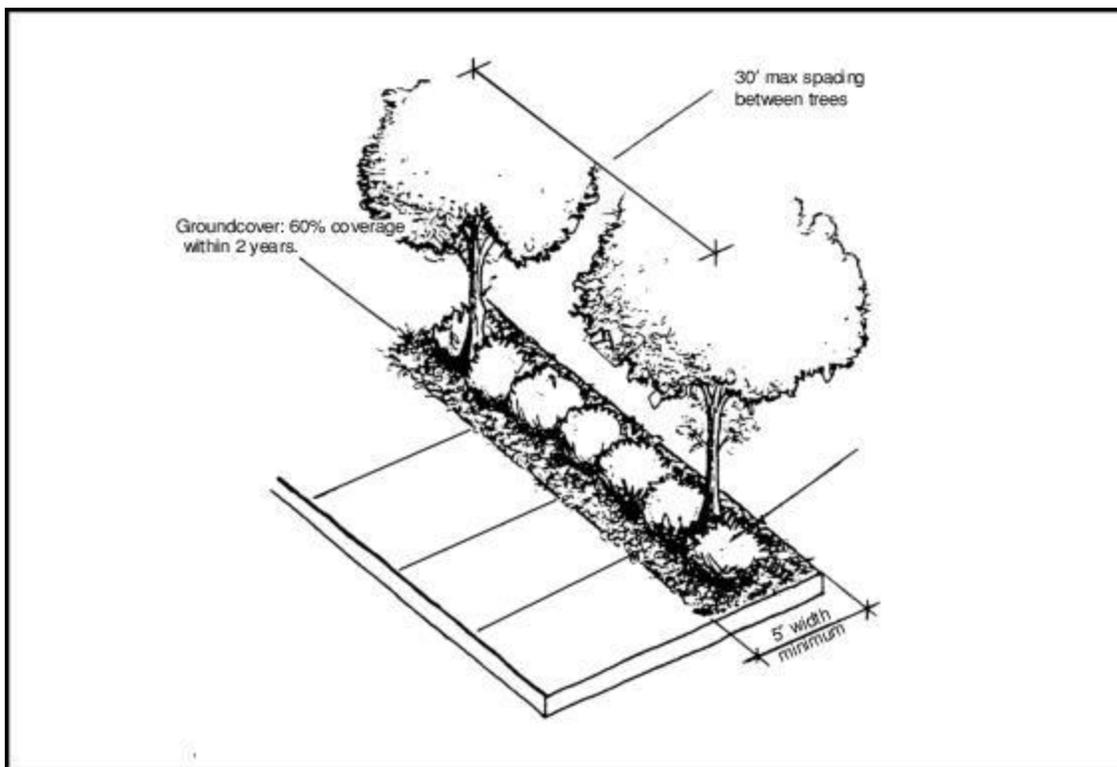


FIGURE 95.45.A

Perimeter Parking – Examples of Various Screen Wall Designs

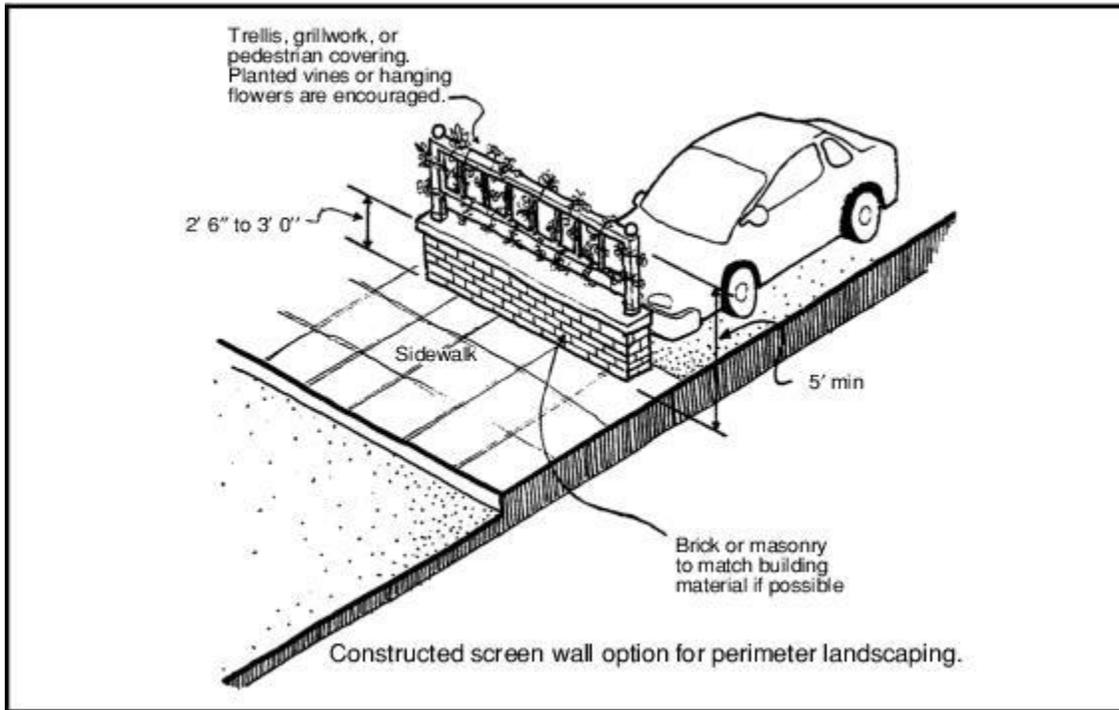


FIGURE 95.45.B

Perimeter Parking – Examples of Various Screen Wall Designs

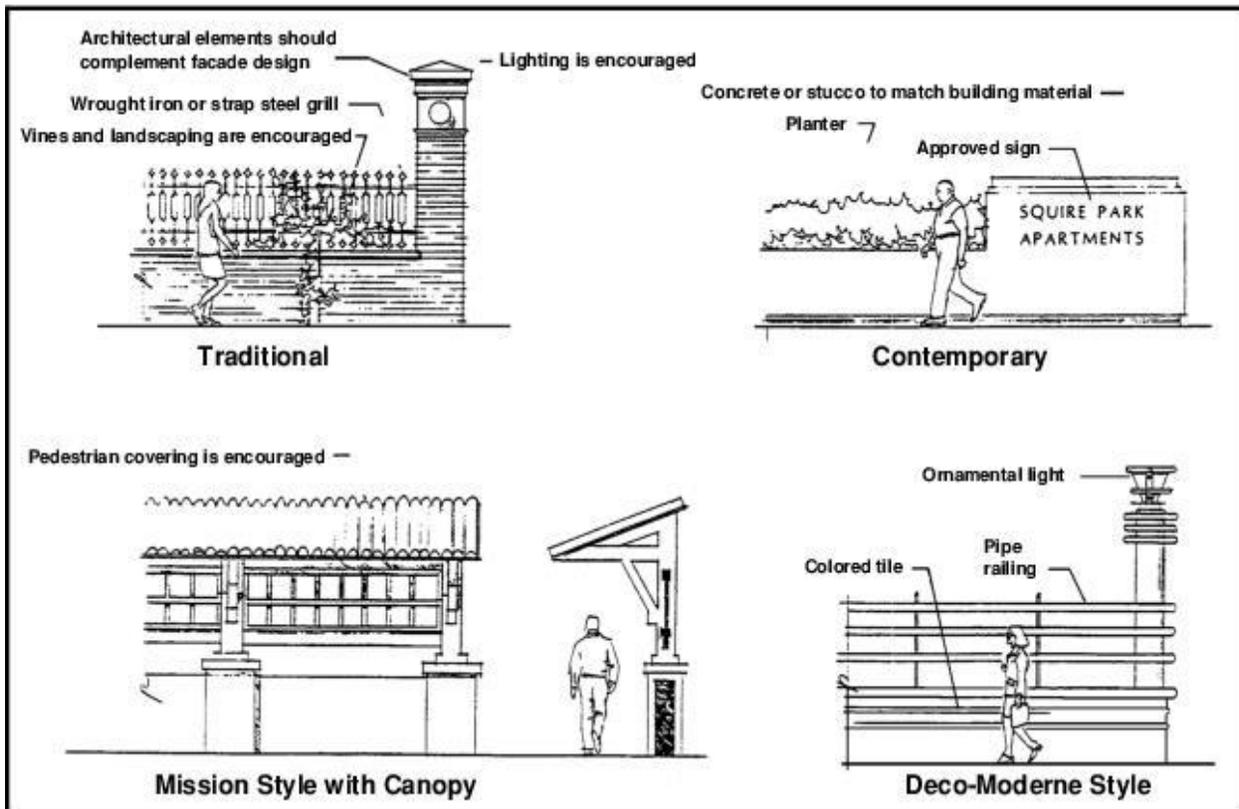


FIGURE 95.45.C

95.46 Modifications to Landscaping 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 95.41, Supplemental Plantings, 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 long-term viability of the required landscaping; 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~~is produced by the City's Natural Resource Management Team~~ 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. ~~Prohibited Materials.~~ Plants listed ~~as prohibited~~ in the Kirkland Prohibited Plant List shall not be planted ~~are prohibited~~ 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 supplemental 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 supplemental trees may be checked for the approved locations as a final inspection procedure on development sites. Supplemental 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.

76. 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.

87. 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.

98. 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.

109. 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.

110. 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. During final inspection, if these requirements are not met, the project will not be signed off.

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. ~~Plants that die must be replaced in kind.~~ 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. Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built landscape plan and an agreement to maintain and replace all landscaping that is required by the City.~~
- 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 ~~p~~Planned ~~u~~Unit ~~d~~Development; or
 - 3) The tree or vegetation was retained to partially or fully meet requirements of KZC 95.40 through 95.45, ~~R~~Required ~~L~~andscaping ~~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). Significant 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 will not harm the tree or other vegetation that the City required trees and vegetation. has required to be planted or protected.~~
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 ~~as prohibited~~ 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 Code Enforcement. ~~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.

95.57 City Forestry Account

1. Funding Sources. All civil penalties received under this chapter and all money received pursuant to KZC 95.3~~34.6~~4.6 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;
 - x. Agreed upon payment in lieu of planting required trees under KZC 95.34.6;
 - b. Sale of trees or wood from City property where the proceeds from such sale have not been dedicated to another purpose;
 - c. Donations and grants for tree purposes;
 - d. Sale of seedlings by the City; and
 - e. 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.

TREE REMOVAL- CURRENT CODE SUMMARY

	REMOVAL SCENARIO	REVIEW OR PERMIT REQUIRED?	MISC.
PRIVATE PROPERTY	Remove 2 trees (regardless of condition)	No review, no permit Notification recommended	Notification avoids unnecessary Code Enforcement response
	Remove 3+ trees As hazard or nuisance	No review, no permit if...	...if hazard or nuisance is obvious in a photo or other documentation
	Remove hazard or nuisance trees in critical areas	Yes, review and permit required	Arborist report, replacements may be required
	Emergency/urgent tree removal	No review, no permit	Contact Planning Dept.
	Prune or trim trees	No review, no permit	-Property owners are responsible for tree care -No topping allowed (>50% live crown removal is same as tree removal)
	Tree removal with development	Yes, included with land use or development permit	-Arborist report required for trees potentially impacted by development -Protection measures required on site
PUBLIC PROPERTY	- ROW medians/CKC trees maintained by City - ROW trees maintained by adjacent property owner	Yes, review and permit required	Public Works may prune ROW trees by property owner request
	Prune or remove park trees	Removal requests reviewed on case-by-case basis	Staff may prune park trees by property owner request

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 ¹	WHAT WILL THE PROPOSED CODE DO?	DOES THE CURRENT CODE ADDRESS THE ISSUE?	CANOPY EFFECT ²	ANTICIPATED RESULT ³
Development Requirements	Tier 1 - Landmark tree	✓	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
	Tier 1- Grove	✓	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.
	Tier 2 trees	✓	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
	Tree condition ratings	✓	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
	Building envelope dimensions	✓	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
	Extent of tree retention requirements	✓	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
	Code flexibility elsewhere	✓	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
	Retention & replanting priorities	----	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
	Integrated Development Plans (IDP)- Tree retention decisions upfront with shortplat & subdivision design	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
	No credits for arborvitae	✓	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	No landmark tree removal	FHNA	Prohibit removal of 30" dbh trees unless hazard/nuisance (permit)	No		+ Protects iconic landmark trees before and after development
	Tree removals per lot size	----	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
	Prevent preemptive tree removals	----	• 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
	Hedge removal	----	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
	Authority to order removal of severely infected trees	----	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 ? ¹	WHAT WOULD THIS APPROACH DO?	DOES THE CURRENT CODE ADDRESS THE ISSUE?	CANOPY EFFECT ²	ANTICIPATED RESULT ³
<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 ⁴ 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 <ul style="list-style-type: none"> • 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 ⁴ 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
?					

¹STAKEHOLDER - 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.

²CANOPY 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.

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

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

Amendments to Kirkland Zoning Code Chapter 95

Resulting Development Review - Proposed Code Changes & Stakeholder¹ Approach Compared to Current Code

PROPOSED CODE CHANGES – Tier 1 landmark tree size, groves defined by tree size/number in group. Tier 1/Tier 2 condition ratings, building envelope dimensions, specific site plan alterations/variations to development standards.
 CURRENT CODE - High Retention Value trees in setbacks, Moderate Retention Value “where feasible,” simple grove definition and meet or exceed 30 credits/acre with retention of existing trees
 STAKEHOLDER¹ APPROACH (NOT IN DRAFT CODE) - Allow tree removal at applicants’ discretion upon reaching a 50 credit per acre quota for existing trees

Permit No. ² Property Size	Credits required @ 30 per acre/50 credits per acre	Credits required not using incentive/ with 1.5x native conifer incentive	Number of trees required to be planted @ 30 credits per acre	Number of trees retained @ 30 credits per acre/50 credits per acre	Groves retained under current definition/ proposed Tier 1 definition	Number of trees >30” dbh retained under current code/ Proposed Tier 1 definition	Tier 2 Trees retained	Retained under current code as “Fair” condition or Moderate Retention Value, or Tier 2 trees not retained due to conflicts (otherwise retained under existing code)	Total # retained Trees under proposed Tier 1/ Tier 2 code	+/- Trees retained @ 30 credits per acre/50 credits per acre	+/- Groves retained under current code compared to proposed Tier 1- Tier 2	+/- Trees >30” dbh retained under current code compared to proposed Tier 1- Tier 2	Development Review Notes & Discussion
BSF18-05491 7,560 sq. ft.	6/9	0/0	6	0/0	0/0	0/0	0	0	0	0	0	0	Insignificant outcome. Poor existing trees; plant 6 trees to meet minimum 30 credits
BSF18-07677 7,701 sq. ft.	6/9	0/0	6	0/0	0/0	0/0	0	0	0	0	0	0	Insignificant outcome. No trees on site; plant 6 trees to meet 30 minimum credits
BSF18-05718 7,235 sq. ft.	5/9	11/16.5	0	1/1	0/0	1/1	1	0	2	0	0	0	IDP likely would retain Lot 1 grove/landmarks and possibly prevent preemptive removals on Lot 2 east side. On site: 30” DF, 24” BLM, 19” WRC, 22” DF.
BSF18-06307 32,612 sq. ft.	23/38	38/51.5	0	6/3	1/1	3/3	1	1	5	-3	0	0	3 landmark trees over 30” dbh trees create grove. 1 non-viable tree was retained by choice of the applicant.
BSF18-07533 8,500 sq. ft.	6/10	33/57	0	6/5	1/1	1/1	1	0	6	-1	0	0	Retention of Tree #449 (not in grove) depends on condition.
BSF18-07358 7,232 sq. ft.	5/8	30/30	0	19/2	2/0	0/0	16	3	16	-17	-2	0	Unable to retain groves under proposed code due to tree less than 30” dbh. Most trees would be retained under Tier 2 criteria.
BSF19-00604 7,640 sq. ft.	6/9	43/64.5	0	6/6	1/0	1/0	4	2 (1 Moderate Retention Value, 1 “Fair” condition)	4	0	-1	-1	No grove designation. Cannot retain Tree #435 (37” WRC) successfully due to its location on small site. Tree #449 would not be retained under Tier 2 condition.
BSF18-06345 7,290 sq. ft.	5/8	10/22	0	4/2	1/0	0/0	4	0	4	-2	-1	0	Unable to retain grove under proposed definition due to size of Tree #48 (29” DF). Trees #40-41, 48 removed preemptively, may have been retained successfully using IDP. Trees # 43, 44, 45 & 46 retained as Tier 2
BSF18-06810 7,252 sq. ft.	5/8	15/22	0	3/1	0/0	1/1	1	2 (“Fair” condition)	2	-2	0	0	Unlikely that 2 Landmark trees # 436-7 could be retained under Tier 1 measures due to same reasons as current code: species tolerance, lot size, driveway, drywell.
BSF19-00792 9,115 sq. ft.	7/11	29/40.5	0	3/1	1/1	1/1	0	0	3	-2	0	0	No comments
BSF18-04584 5,444 sq. ft.	4/6	11/12.5	0	4/1	1/0	0/0	2	2	2	-3	-1	0	26” SEQ might be retained as Landmark if defined at >26” dbh. Retained grove in rear setback would not meet dbh criteria.
BSF18-02800 7,644 sq. ft.	6/9	7/7	0	1/1	0/0	0/0	1	1	1	0	0	0	More likely to successfully retain Tree #1 by “flipping” building configuration on lot than retaining Tree #2 (22” dbh) if landmark definition was lowered.

BSF19-00603 6,980 sq. ft.	6/8	19/28	0	5/1	1/0	0/0	5	0	5	-4	-1	0	Unable to retain grove located in rear setback under proposed definition for size/number of trees. Tree #474 would be retained as Landmark if defined at a 26" dbh threshold.
BSF18-07055 5,544 sq. ft.	4/6	22/30	0	4/1	1/1	1/1	3	1	3	-3	0	0	Tree #4 was retained but was approved for removal one year later when a new defect became apparent
BSF18-04380 12,266 sq. ft.	9/14	15/17.5	0	2/1	0/0	1/1	1	0	2	-1	0	0	No comments
BSF18-04585 4,752 sq. ft.	4/5	4/6	0	2/2	0/0	0/0	2	0	2	0	0	0	No comments
BSF18-06258 8,963 sq. ft.	7/11	4/4	3	1/1	0/0	0/0	0	2	0	0	0	0	Trees #303 and 304 would not be retained, do not meet Tier 2/condition criteria. Applicant required to plant 3 trees to meet 30 credits/acre.
BSF18-05851 8,142 sq. ft.	6/9	7.5/7.5	0	5/5	0/0	0/1	0	5		0	0	1	No trees on site meet the new condition criteria; under the proposed code, the supplemental arborvitae doesn't count towards credits. No grove designation due to species. Note 2 preemptive removals.
BSF18-04799 9,181 sq. ft.	7/11	17/17	0	6/3	1/0	0/0	0	5 ("Fair" condition)	0	-3	-1	0	Retained grove in rear setback would not meet dbh criteria under the proposed code, would not meet Tier 2 condition criteria.
BSF19-00488 8,024 sq. ft.	6/9	22/33	0	4/1	0/0	1/0	2	2 ("Fair" condition)	2	-3	0	-1	Retained Trees #1408 & 1409 meet Tier 2 condition criteria. Would not retain Tree #1402 (24" dbh) as Landmark even if the size threshold is lowered due to its condition.
BSF19-01336 7,200 sq. ft.	5/9	44/66	0	4/2	1/1	2/2	0	0	4	-2	0	0	If IDP, plat likely laid out differently, possibly resulting in additional Landmark tree retention. Trees #756-759 fit grove criteria but were not designated. Unable to retain Tree #755 (in middle of bldg. footprint) or #730-732 in driveway. #751 not considered for retention due to grade change. #729 species not suitable for retention.
BSF18-04622 6,065 sq. ft.	5/7	0	5	0/1	0/0	0/0	0	0	0	1	0	0	Tree #2 would not be retained as a Tier 1 tree due to its condition
TOTALS										-45	-7	-1	

¹STAKEHOLDER – a small group of self-appointed members from Master Builders of King and Snohomish Counties, Finn Hill Neighborhood Alliance and others.

²Random sampling of 22 recently-issued single family residential developments

DF – Douglas fir

WRC – Western red cedar

BLM – Bigleaf maple

SEQ – Sequoia

Revised October 31, 2019

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 with No Development
- 95.30 Tree Retention Associated with Development Activity
- 95.32 Tree and Soil Protection during Development Activity
- 95.34 Supplemental Tree Planting Requirements Related to Development Activity
- 95.40 Required Landscaping Based on Zoning District
- 95.41 Supplemental Plantings
- 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 Landscaping 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 supplemental required trees. Caliper shall be measured six (6) inches above the ground for up to and including 4-inch caliper trunk sizes.
2. Critical Root Zone (CRZ) –The area encircling the trunk of a tree equal to one (1) foot radius for every inch of trunk diameter (DBH). . Example: a 24-inch DBH tree has a 24-foot radius Critical Root Zone 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 leaders at 4.5 feet height, the DBH shall be the combined cumulative total of branches greater than six (6) inches diameter at 4.5 feet above average grade. 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.
- x. Hedge – 5 or more trees of the same species planted in linear formation, typically to function as a screen or barrier.
6. Inner Critical Root Zone – an area half the distance of the Critical Root Zone that when impacted, may compromise the structural integrity of a tree. Example: a 24-inch DBH tree has a 12-foot radius Inner Critical Root Zone measured from the face of the trunk.
7. ISA – International Society of Arboriculture
8. Impact – A condition or activity that affects any part of a tree including the trunk, branches, and Critical Root Zone.
9. Public Works Official – Designee of the Public Works Director.
10. 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.

11. Significantly Wooded Site – A subject property that has trees with crowns that cover at least 40 percent of the property.
16. 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.
12. Topping – The reduction of a tree’s size using heading cuts that shorten limbs or branches back to a predetermined crown limit. Topping is not an acceptable pruning practice and is not appropriate on established trees. Topping or pruning that results in the removal of more than 25 percent of the live crown will be considered tree removal and subject to the provisions in KMC 1.12.100, Special Provisions Related to Enforcement of Tree Regulations.
13. 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, vegetation, 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, or root plate diameter methodologies or exploratory root excavations. TPZ denotes the location of tree protection fencing.
14. 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. Trees that have been girdled at development permit submittal will be treated as unauthorized tree removal subject to code enforcement.
15. Trees
 - 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, or a group of five (5) or more regulated trees, one of which is a minimum 24-inch DBH.
 - b. Hazard Trees –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 95.23.9.
 - c. Landmark Tree – a regulated tree with a minimum 30-inch DBH in excellent-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: sidewalk, curb, road, driveway, parking lot, building foundation, or roof; or
 - 2) Has sustained damage from past maintenance practices.

The problems associated with the 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, and/or cabling to reconstruct a healthy crown.
 - f. Public Tree – a tree located in parks, along public rights-of-way, on City facility property or 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 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-good condition per KZC 95.30.3.
16. Wildlife Snag – The remaining trunk of a tree that is intentionally reduced in height and usually stripped of its live branches.
17. 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 of 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 by 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 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 tree on any City property, or any tree in the public right-of-way, without first obtaining a tree removal permit as provided in this chapter, unless the activity is exempted in KZC 95.23.2, Tree Removal Exemptions The City will not authorize removal of any public tree by any private party 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 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 more than one-inch in diameter or. The City reserves the right to have City or utility crews perform routine pruning and maintenance of street trees.

95.23 Tree Pruning and Removal on Private Property with No Development [Consider 95.23.1 and 2 in chart format]

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 Pruning on Private Property.** Tree topping is not allowed. Any private property owner may prune trees on their property without a permit with the exception of the following:
 - a. Trees located in wetlands, streams or their buffers;
 - b. Landmark trees or dedicated grove trees.
2. **Tree Removal Allowances.** Any private property owner of developed property may remove 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 wetlands, streams or their buffers 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. All the additional standards for tree removal and tree removal permits as described in subsection (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 a tree removal 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.
6. **Tree Removal Permit Application Form.** The applicable City's department shall provide a tree removal permit application form. Property owners requesting to remove trees shall submit a completed permit application for City review for compliance with applicable City regulations. The tree removal permit application form shall include at a minimum the following:
 - a. A site plan showing the approximate location of regulated trees, their size (DBH) and their 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. 23.8, Tree Replacement Requirements.
7. **Tree Removal Permit Decision and Appeals.**
 - a. The City shall review the application within 21 calendar days and either approve, approve with conditions or modifications, deny the application 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.
8. **Tree Replacement Requirements.**
 - a. **Tree Replacement.** For every regulated tree that is removed the City encourages the planting of a tree that is appropriate to the site.

- b. Public Trees – the City shall require a minimum one-for-one replacement in a suitable location.
- 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 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. For the approved removal of overgrown hedges comprised of regulated trees, replacement trees are required at a 1:1 ratio.

e. If a tree removal request is for one (1) or both of the last 2 regulated trees on single-family home, cottage, carriage unit, or two/three-unit home sites under 10,000 square feet, a tree removal permit and one-for-one replacement is required. If the request is for the last 4 regulated trees on lots between 10,000 to 20,000 square feet, a tree removal permit and one-for-one replacement is required. If the request is for the last 6 regulated trees on lots greater than 20,000 square feet, a tree removal permit and one-for-one replacement is required. The replacement tree shall be six (6) feet tall for a conifer and 2-inch caliper for deciduous or broad-leaf evergreen tree.

f. For all other circumstances, the required tree replacement will be based on the required landscaping standards in KZC 95.40 through 95.50.

9. Removal of Hazard or Nuisance Trees. Any private property owner seeking to remove any number of regulated trees from developed or undeveloped property or the public right-of-way which are a hazard or nuisance shall first obtain approval of a tree removal permit and meet the requirements of this subsection. 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.

a. Tree Risk Assessment. If the nuisance or hazard condition is not evident based on a photograph, 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 supported by a report prepared by a qualified professional and approved by the City. Hazard tree risk assessment shall follow the steps in the ISA TRAQ method for developing a tree risk rating as follows [consider administrative procedures such as handouts to streamline the section below]:

- 1) Identify possible targets and estimate occupancy rate;
- 2) Inspect tree and identify tree parts that could fail and strike targets (referred to as failure mode);
- 3) For each significant failure mode identified:
 - i. The likelihood of failure is assessed;
 - ii. The likelihood of a tree part impacting a target is assessed;
 - iii. The likelihood of a tree failure impacting a target is assessed;
 - iv. Consequences of failure are estimated;
 - v. The risk is designated pursuant to the matrix in Table xx;
 - vi. Possible mitigation treatments to reduce the risk are identified;
 - vii. The risk is again designated pursuant to the matrix in Table xx after mitigation treatment is completed.

b. When assessing the risk of a tree, the Planning Official shall evaluate the tree based on existing conditions and shall exclude possible impacts caused by new development, any land alteration activity, or other similar such activities that might otherwise unnaturally cause the risk rating to increase.

c. The following table is from the ISA TRAQ method and denotes the risk rating matrix used to assess levels of tree risk as a combination of 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:

Table xx Tree Risk Rating Matrix

Likelihood of Failure and Impact	Consequences			
	Negligible	Minor	Significant	Severe

Very likely	Low risk	Moderate risk	High Risk	Extreme Risk
Likely	Low risk	Moderate risk	High risk	High risk
Somewhat Likely	Low risk	Low risk	Moderate risk	Moderate risk
Unlikely	Low risk	Low risk	Low risk	Low risk

d. The consequences listed in Table xx have meanings as follows:

- i. Extreme Risk. This category applies to trees in which failure is “imminent” and there is a high likelihood of impacting a target, and the consequences of the failure are “severe.”
- ii. High Risk. This category applies to situations in which consequences are significant and likelihood is “very likely” or “likely,” or when consequences are “severe” and likelihood is “likely.”
- iii. Moderate Risk. This category applies to trees in which consequences are “minor” and likelihood is “very likely” or “likely” or when likelihood is “somewhat likely” and the consequences are “significant” or “severe.”
- iv. Low Risk. This category applies to trees in which consequences are “negligible” and likelihood is “unlikely”; or when consequences are “minor” and likelihood is “somewhat likely.”
- v. Potential targets are permanent structures or an area of moderate to high use. Where a target does not exist, applicants should consider routine pruning and maintenance to mitigate hazards.
- vi. Where a tree is found to have a high or extreme risk, the Planning Official may authorize hazard pruning to mitigate the risk rather than removing the entire tree.
- vii. If the Planning Official assesses a tree to have a high or extreme risk and mitigation of the risk through pruning or moving of potential targets is not feasible, the Planning Official shall designate the tree a hazard tree.

10. Trees in Critical Areas or Critical Areas Buffers. See Chapters 85 and 90 KZC

- a. Hazard or nuisance trees in wetlands, streams and their buffers shall be removed in a manner that creates a wildlife snag;
- b. If creation of a 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, and 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 or hazardous 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

11. Forest Management Plan.

- a. A Forest Management Plan may be submitted for developed, heavily wooded sites of at least 35,000 square feet in size where tree removal exceeds the allowances of KZC 95.23.2 and is not exempt under KZC 95.20, Tree Removal Exemptions. A Forest Management Plan must be developed by a qualified professional and shall include the following:
 - 1) A site plan depicting the location of all regulated (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;
 - 2) Identification of trees to be removed, including reasons for their removal and a description of low impact removal techniques pursuant to subsection (11)(b) of this section;
 - 3) A reforestation plan that includes location, size, species, and timing of installation;

- b. The following Forest Management Plan standards shall apply:
- 1) Trees to remain should be dominant or co-dominant in the stand, healthy and windfirm.
 - 2) No removal of trees from critical areas and their buffers, unless otherwise permitted by this chapter.
 - 3) No removal of Landmark trees or dedicated grove trees, unless otherwise permitted by this chapter.
 - 4) No removal of trees that would cause trees on adjacent properties to become hazardous.
 - 5) 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.
 - 6) 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.
 - 7) Removal of tree debris shall be done pursuant to Kirkland Fire Department standards.
 - 8) 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 assure reforestation requirements of the approved forest management plan.

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 development are encouraged to confer with City staff as early in the design process as possible so that the applicable tree planting and retention concepts 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 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, any proposed development of the subject property requiring approval through a building permit, land surface modification permit, and/or demolition permit, or Design Review, Process I, IIA or IIB, described in Chapters 142, 145, 150 and 152 KZC respectively, shall include a Tree Retention Plan. Arborist Reports in which the field work occurred over 3 years ago may need to be updated with current data.

a. **Exception.** Additions and remodels in which the total square footage of the proposed improvements is less than 50 percent of the total square footage of the existing improvements on the subject property and no development activity is proposed within the CRZ of Tier 1 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 related 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 arborist report, listing the following:

- 1) All existing regulated trees on the subject property identified by a consistent numbering system in the arborist report, site plan and onsite tree tags or flagging. The inventory must also include regulated trees that are on adjacent properties that appear to have Critical Root Zones (CRZ) extending onto the subject property;
 - 2) The Critical Root Zone (CRZ) and the proposed Tree Protection Zone (TPZ) distances of all existing regulated trees specified in feet from the face of the tree trunk. The inventory must also include the approximate CRZ and proposed TPZ of regulated trees that appear to have Critical Root Zones (CRZ) extending onto the subject property);
 - 3) Size (DBH);
 - 4) Proposed tree removals;
 - 5) Condition rating of regulated trees (i.e.: poor, fair, good, excellent, etc.) per KZC 95.32.3(c);
 - 6) Tree species and/or common name.
 - 7) Identification of trees that meet the definition of Tier 1 and Tier 2 trees.
- 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 setbacks, 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 potentially impacted regulated trees that are on adjacent properties;
 - 3) Trees labeled corresponding to the tree inventory numbering system;
 - 4) Critical Root Zones drawn to scale around all trees potentially impacted by site disturbances resulting from grading, demolition, or construction activities (including approximate CRZs of all potentially impacted trees that are on adjacent properties);
 - 5) Location of tree protection fence at the proposed Tree Protection Zone, with distances from trunk to fence noted on the site plan. Specific tree protection standards during construction are described in 95.32 KZC. 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 supplemental trees required to meet tree density credits or the minimum number of trees as outlined in KZC 95.34.
- c. Arborist report with the following:
- 1) The condition rating for each regulated tree's suitability for retention based on its health and structure, including regulated trees that appear to have Critical Root Zones (CRZ) extending onto the subject property. Suitability for retention shall be assessed using the following criteria:

Condition Rating	Tree Structure <i>Root flare, trunk condition, branch assembly</i>	Tree Health <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	New growth is stunted or absent. Twig dieback, defoliation, discoloration, and/or dead branches may

	large girdling roots, trunk damage, evidence of decay that are not practical to correct or would require multiple treatments over several years.	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 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.);
- 3) A description of the method(s) used to determine the Tree Protection Zone (i.e., Critical Root Zone formula, root plate diameter, exploratory root excavations or a case-by-case basis description for individual trees);
- 4) Any special instructions specifically outlining any work proposed within the Critical Root Zone 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 Critical Root Zone of retained trees during project construction (i.e. material delivery, equipment access, landscaping, etc.);
- 6) Describe the impact of necessary tree removal to the remaining trees, including those in a grove or on adjacent properties;
- 7) The suggested location and species of supplemental trees to be used when required. The report shall include planting and maintenance specifications pursuant to KZC 95.50 and 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 pursue provisions in KZC 95 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 permit 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, maximum allowed Floor Area Ratio (FAR) 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:

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, is a configuration of 40-foot wide by 40-foot deep building footprint, in combination with 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 a Tier 1 tree(s).

2) 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 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 front yard on corner lots in the RSA and RSX zones and selection of the side yard to meet the 15-foot total in the RS zone

- 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
- h) With short plats and subdivisions, clustering per Section 95.30.7.b, rearrange property lines, relocate access roads and relocate 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 these 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) 10-foot front and 5-foot rear required yards
- b) Garage requirements of KZC 115.43
- c) 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
- c) Allow 18-foot by 18-foot parking pads
- d) Modify right-of-way frontage improvement requirements such as waive landscape strip, etc.
- e) Allow up to a five-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.)
- f) With short plats and subdivisions, allow 3-foot required side from internal property lines.

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 front building facades wider than 50 feet, the maximum building footprint shall be less 10 percent of the distance between the required side 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 width, which totals a 54' maximum building envelope width.

2) The applicant shall pursue and the Planning Official is authorized to require site plan alterations, including:

- a) Shift or flip (mirror) the location of building footprints and driveways
- b) Select 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 in the RS zone
- c) Reduce required front yard by five-feet and reduce rear yards that are not directly adjacent to another parcel's rear yard but that are adjacent to an access easement or tract may be reduced by five-feet;
- d) Shift the building footprint on the lot to take advantage of the modifications/reductions allowed in subsection 4).
- e) Redesign deck, patio, path
- f) Avoid retaining wall/rockeries within the CRZ where possible

3) Bore under roots within TPZ for utilities less than 2 inches diameter

4) The applicant may pursue these 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) 10-foot front and 5-foot rear required yards
- b) Garage requirements of KZC 115.43
- c) 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 (no landscape strip, etc.)
- e) Clustering with short plats and subdivisions subject to Section 95.30.7.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 pursue provisions in KZC 95 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 permit 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 landscape strip, etc.
- h. Reduce or Vary Common Recreational Open Space area, width, or composition of required common recreational open space .
- i. Vary parking lot design and/or access driveway requirements when the Public Works and Planning Officials both determine the variations to be consistent with the intent of City policies and codes.
- j. Vary requirements pertaining to stormwater if approved by the Public Works Official under KMC 15.52.060.

6. 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:

- 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 would result in either of the following:
 - 1) Tree(s) that are unsuitable for retention per the condition ratings in KZC 95.30.3.c
 - 2) The retention of a Tier 2 tree compromises a Tier 1 tree's suitability for retention.
- 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 that will be equal or superior to the provisions of KZC 95.
- 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 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 pursuant to the standards of KMC 22.20.025 and the following criteria:

- 1) Modification Prior to Tree Removal. The Planning Director may approve a modification request to remove Tier 1 or Tier 2 trees previously identified for retention if:
 - a) Regulated trees inventoried in the original Tree Retention Plan have not yet been removed; and
 - b) Notice of the modification request is provided consistent with the noticing requirements for the short plat.
- 2) Modification after Tree Removal. A modification request is required to remove trees previously identified for retention after which trees inventoried in the original Tree Retention Plan have already been removed. Such a request may be approved by the Planning Director only if the following are met:
 - a) The need for the modification was not known and could not reasonably have been known before the tree retention plan was approved;
 - b) The modification is necessary because of special circumstances which 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;
 - c) There is no practicable or feasible alternative development proposal that results in fewer additional tree removals;
 - d) The Planning Director shall not approve or deny a modification pursuant to this section without first providing notice of the modification request consistent with the noticing requirements for the short plat and providing opportunity for comments for consideration by the Planning Director; and
 - e) Said comment period shall not be less than 14 calendar days.
 - f) The fee for processing a modification request shall be established by City ordinance.

b. Lot Clustering. Clustering of lots associated with short plats and subdivisions. The Planning Director may approve variations to minimum Lot Size, maximum Floor Area Ratio and Lot Coverage requirements in order to facilitate retention of Tier 1 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 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.

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. Tree Cutting in Advance of Issuance of Land Development Permit. There shall be no tree removal or land clearing on any site for the sake of preparing that site for future development.
2. 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.
3. 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 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.
 - 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 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.
 - 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 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.
 - 2) 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.
 - 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.
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. 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 Supplemental 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. Supplemental Trees 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 as approved by the Planning Official shall count 1.5 times credits for retention. For individual lots in a short subdivision 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.
 - 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 Significant Trees
(Credits per minimum diameter – DBH)**

DBH	Tree Credits	DBH	Tree Credits	DBH	Tree Credits
3 – 5"	0.5				
6 – 10"	1	24"	8		

DBH	Tree Credits	DBH	Tree Credits	DBH	Tree Credits
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 30-inch DBH trees and two (2) existing 12-inch DBH Tier 2 conifer trees (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 Supplemental Trees.** The required minimum size of the supplemental 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 supplemental 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 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. **Supplemental Tree Locations.** In designing a development and in meeting the required tree density, the supplemental 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 their 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 with the development of residential subdivisions.
- b. Off-Site. When room is unavailable for planting the required trees on site, then they may be planted at another approved location in the City. Trees that are planted offsite from the subject property may be required to be preserved in perpetuity.

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. Supplement. 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. 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.

95.41 Supplemental Plantings

1. General. The applicant shall provide the supplemental 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.
2. 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.

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)		
D		Must comply with subsection (2) (Buffering Standard 2)			
E					
Footnotes:	*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:
- 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; or
 - Serves detached dwelling units exclusively; or
 - 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):
- 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.
 - 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.
 - 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.
 - In JBD zones:
 - 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.
 - 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.
 - 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

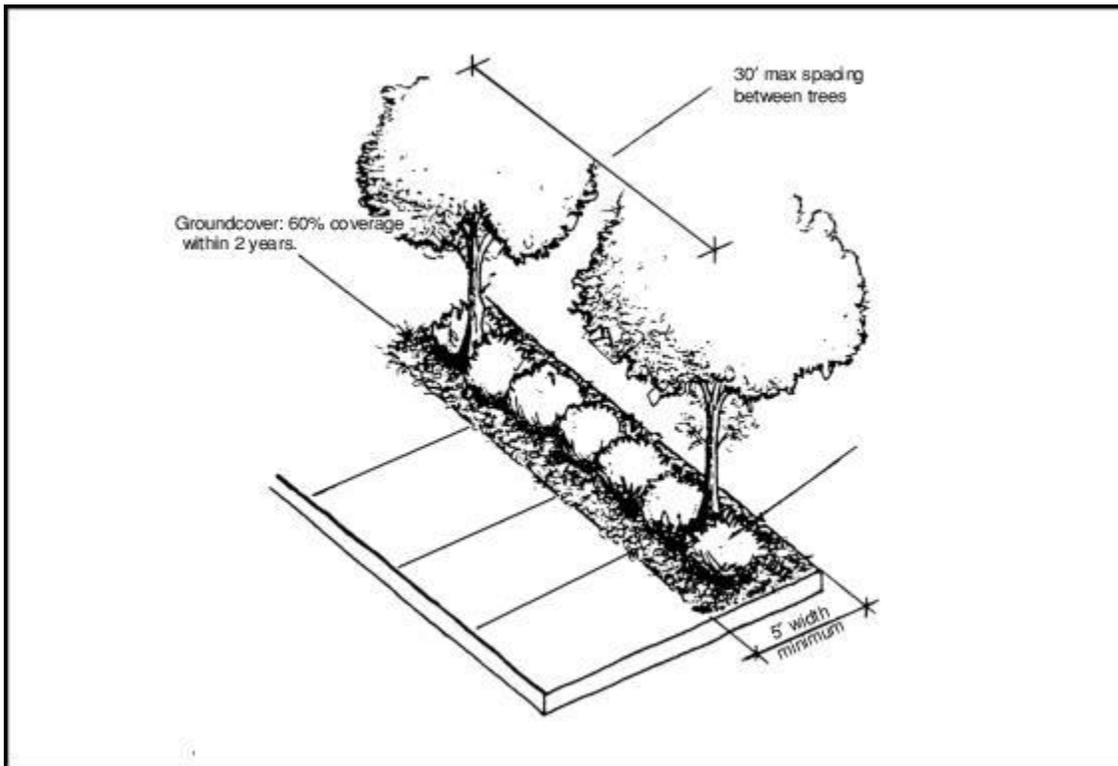


FIGURE 95.45.A

Perimeter Parking – Examples of Various Screen Wall Designs

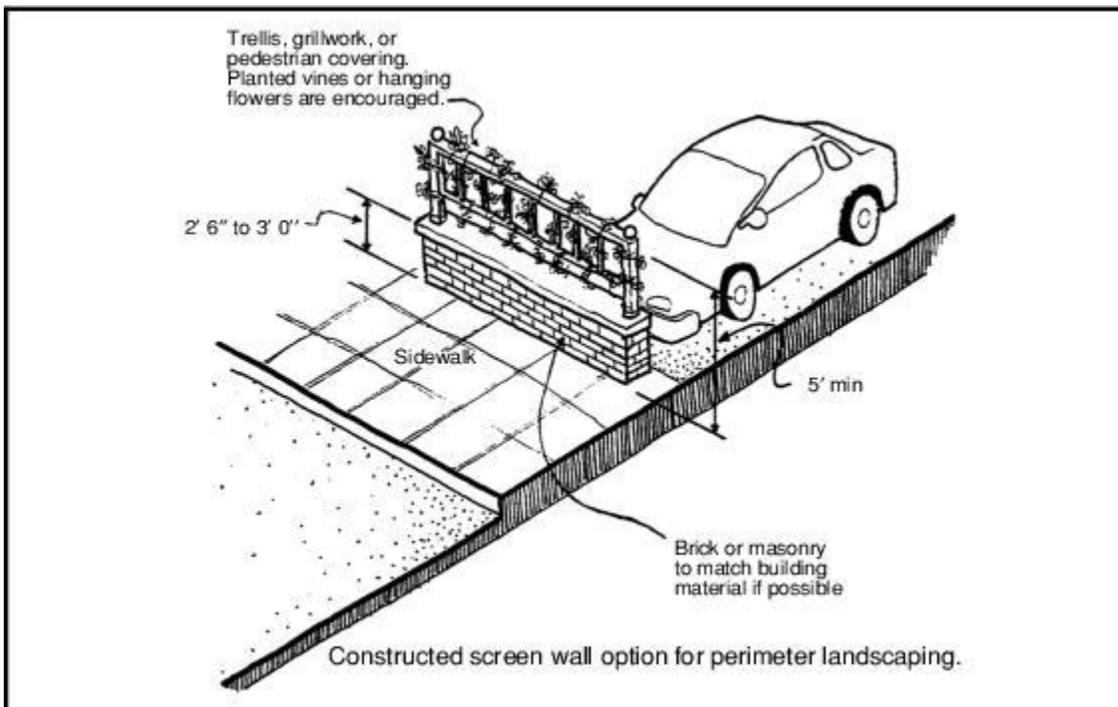


FIGURE 95.45.B

Perimeter Parking – Examples of Various Screen Wall Designs

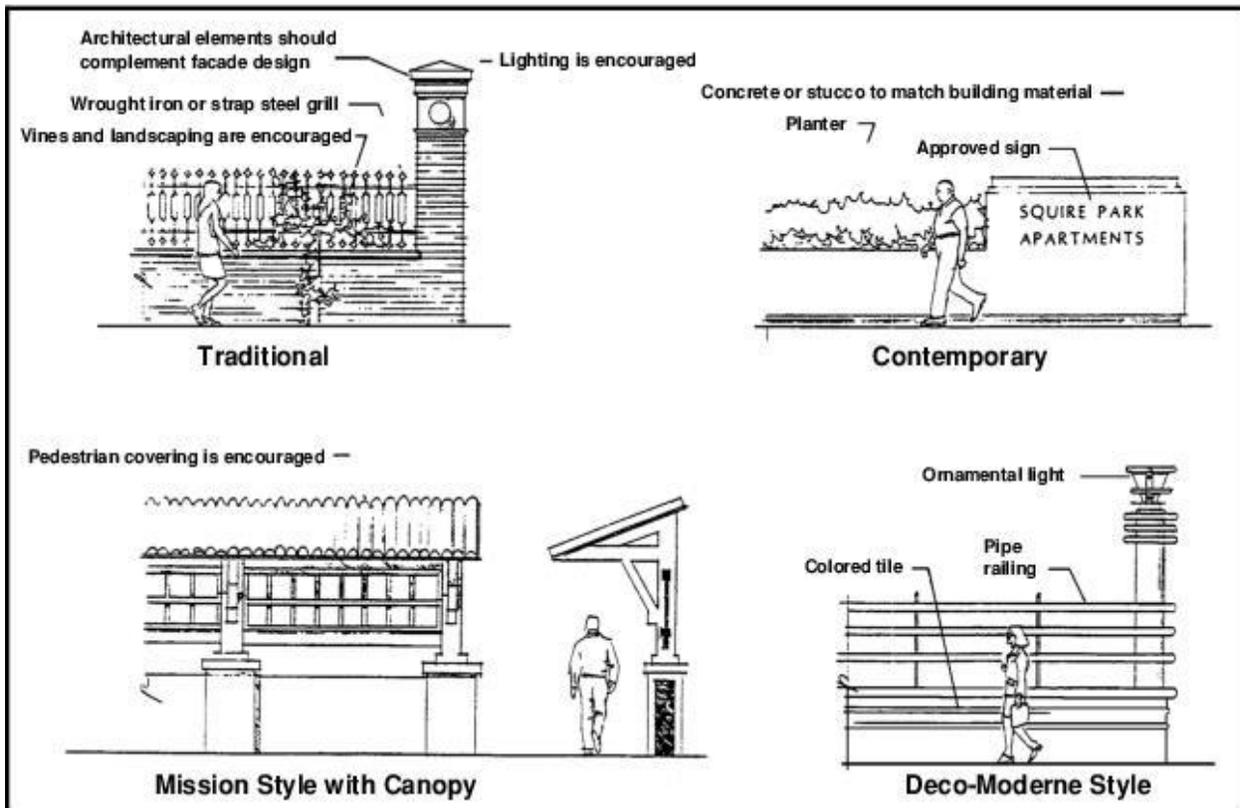


FIGURE 95.45.C

95.46 Modifications to Landscaping 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 95.41, Supplemental Plantings, 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 supplemental 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 supplemental trees may be checked for the approved locations as a final inspection procedure on development sites. Supplemental 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. During final inspection, if these requirements are not met, the project will not be signed off.

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). Significant 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. 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.

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;
- x. Agreed upon payment in lieu of planting required trees under KZC 95.34.6;
- b. Sale of trees or wood from City property where the proceeds from such sale have not been dedicated to another purpose;
- c. Donations and grants for tree purposes;
- d. Sale of seedlings by the City; and
- e. 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.



September 25, 2018

Kirkland Planning Commission
 Kirkland City Hall
 123 Fifth Avenue
 Kirkland WA 98033

Re: Code Amendments for Kirkland Zoning Code
Chapter 95 (Tree Management and Required Landscaping)

Dear Commissioners,

The Finn Hill Neighborhood Alliance (FHNA) notes that, at its meeting on Thursday, the Planning Commission will review proposed amendments to the citywide tree ordinance (Chapter 95) that have “moderate” or “major” policy implications. Earlier this year, FHNA supported Chapter 95 modifications that City staff had recommended as part of the Holmes Point Overlay (HPO) review. We also advocated some additional modifications to clarify Chapter 95 and close enforcement loopholes. (See in particular pages 2 and 3 of our May 22, 2018, letter to the Planning Commission, attached as Appendix A.)

We have not changed our views about these proposed revisions to Chapter 95. Because the Commission is now assessing improvements to Chapter 95 outside of the Holmes Point Overlay context, however, FHNA would like to address Chapter 95 as it relates to Kirkland as a whole (including the portion of Finn Hill that lies outside the Holmes Point Overlay boundary). The following comments reflect observations made to the staff by Finn Hill neighbors (some of whom live in the Holmes Point area, some of whom do not) at a September 18 focus group session about Chapter 95. (The following comments do not respond directly to the staff’s observations in its memo to the Commission of September 21, 2018. FHNA will review that memorandum carefully and provide additional comments if warranted.)

- **Canopy goals:** Chapter 95 references Kirkland’s Urban Forest Strategy Management Plan of 2013 in the ordinance preamble. That plan set a citywide tree canopy coverage goal of 40%.

- **A canopy goal should be stated explicitly in Chapter 95; it should exclude canopy coverage in portions of the City that consist of County or State parks (which are not controlled by the City), and an additional canopy coverage goal of 50% should be established for residential areas.** (A 50% canopy coverage target for residential areas was recommended by American Forests for Puget Sound communities; the American Forest research was the basis for Urban Forest Strategy Management Plan's proposal that Kirkland's citywide canopy goal – inclusive of commercial areas – be set at 40%. FHNA believes that a separate, higher canopy cover goal for residential areas is needed to achieve 40% coverage over the entire city.)
- **We also suggest that the ordinance establish a goal that 50% of its canopy cover should consist of native conifers.** These trees provide superior water transpiration on a year-round basis and their roots reinforce soils, minimizing surface water runoff, erosion, and landslide risks.
- **Tree canopy standards vs. tree credits:** Chapter 95 currently requires that properties undergoing development be planted with new trees at the rate of 30 tree credits per acre. As you know, FHNA and City staff vigorously debated the merits of tree canopy percentages vs. tree credits as metrics in the context of the HPO revision. During that review, staff stated that a tree planting standard of 30 credits per acre would equate to canopy coverage of 30%. FHNA has determined that this conclusion is incorrect for many species of deciduous trees and significantly erroneous in regard to native coniferous trees (whose crowns are generally narrower than those of deciduous trees). Please see Attachment B to our May 22, 2018, letter (appended) for our analysis.
 - **We urge the Commission to recommend that Chapter 95 be revised to express tree planting requirements in terms of canopy coverage.** Doing so is intuitively sensible: it would tie compliance metrics *directly* to the City's policy goals, avoiding significant slippage that would result from reliance on the tree credit standard.
 - The staff has expressed concerns that canopy coverage would be difficult to measure on a lot-by-lot basis because satellite images maybe indistinct. However, the canopy coverage standard would apply principally to the planting of new trees for which satellite imagery would be irrelevant. The developer and the developer's arborist or landscaper would submit a planting plan designed to provide the requisite canopy coverage at the end of a specified period (FHNA recommended 20 years but it could be longer to allow for maturation of slow growing conifers); the plan would be reviewed by the City's own arborist. Since Chapter 95 already requires the submission of tree plans, a switch from tree credits to canopy coverage requirements would entail no significant additional work for builders or City staff.
 - An additional benefit of moving to a canopy coverage standard is that it will give developers an incentive to plant trees in a fashion that maximizes their mature crowns, rather than on planting trees close together in order to meet planting tree credits quota without regard to ultimate canopy result.

- **Integrated Development Plan (IDP):**
 - **All applications for subdivisions and short plats should be processed under the Integrated Development Plan regime** that the Council adopted last year for the Holmes Point area.
 - Additionally, **notices to neighbors of short plats and subdivisions should include the tree plans that are submitted with development applications** or should provide a link for online access to such plans. Otherwise, citizens will be able to comment on tree plans only if they go to Planning Department to view them – an obstacle that defeats the transparency that the IDP is designed to provide.

- **Tree retention values:** Chapter 95 currently says that High Retention Value trees (trees in setbacks, specimen trees, trees on slopes, trees in groves) should be retained “to the maximum extent possible” and that Moderate Retention Value trees (healthy trees) should be retained “if feasible”; Low Retention Value trees are those that are not viable or are located in the footprint of development activity. Staff has noted that the definition of Low Retention Value trees may constitute a loophole in that any tree standing where development activity is planned is not considered one worth retaining, despite its condition.
 - **At the very least, the definition of a Low Retention Value tree should be narrowed to encompass only unhealthy trees and trees that cannot feasibly be retained** (i.e. a healthy tree is classed as a Low Retention Value tree only if the staff determines that it is infeasible to retain the tree).
 - **The Commission should engage in a candid discussion with the staff on the practical meaning of “feasible” and “to the maximum extent possible”.** Our review of development plans both within and outside of the HPO indicates that many trees marked for removal could have been saved with some additional design effort and better coordination with utilities. We recognize that City staff is under pressure not to raise needless obstacles to development; however, it appears to us that tree protections have not been enforced in compliance with the language that already appears in Chapter 95.
 - We offer four related observations regarding the preservation of trees during development:
 - Exceptional trees (called Landmark Trees or Heritage Trees or the like in other cities’ tree codes) are not given special status under the Kirkland tree code except insofar as “specimen trees” are classified as High Retention Value trees. **Developers should be given meaningful incentives to protect specimen trees**, perhaps in the form of a bonus to their canopy coverage calculation.
 - Native trees are “encouraged” (and the retention of native conifers is rewarded with the allocation of additional credits to such trees) but no specific requirement is given to promote the planting of new native

- conifers. **The City should specify that a minimum percentage of new plantings (e.g.,50%) must consist of native conifers.**
- FHNA is concerned that **the City does not make adequate efforts to preserve trees where they are located in the path of paved sidewalk or the conventional route of utility lines.** It should preserve healthy trees where feasible or to the maximum extent possible; yet, we have seen numerous instances where their removal is approved to accommodate the shortest utility trench or a standard paved sidewalk (sometimes extending no further down a street than the frontage of a subdivision – i.e. a sidewalk to nowhere). We believe that the City can do better to meet its own tree retention standards.
 - We also note that Chapter 95 empowers City planners to revise the location of driveways and walkways, and to make “minor” adjustments to building footprints for this purpose. **The Commission should discuss with staff candidly whether planners invoke this authority effectively to save healthy trees,** or whether planners have been too confrontation averse. It would be instructive for staff to provide examples of where this has been done successfully (and where it has not been fruitful). **Also, staff should be given power to make more than minor footprint adjustments in order to preserve healthy trees.** This authority could be invoked to preserve specimen trees (see above). Other municipalities, notably Lake Forest Park, give such powers to staff. (FHNA understands that staff cannot abuse its discretion to the point that its deprives an owner of all reasonable economic value of property to be developed. FHNA believes that there is significant room for more effective tree preservation than what the City has achieved to date without exposing the City to a serious claim of a taking of property.)
- **Maintenance of newly planted trees:** Chapter 95 specifies that trees planted to meet tree credit (or canopy coverage) requirements must be maintained for 5 years. As parcels are developed and sold, builders assign this responsibility to private homeowners, who may be unaware of the responsibilities or disinclined to accept them. **To ensure that new plantings are maintained, developers should be required to post a bond for the maintenance or replanting of trees for 5 years.** Having a bond in place would enable the City to ensure that young trees are protected even if developers are no longer available to fulfill their maintenance commitments.
 - **Fencing and signage during development activity:** To discourage fence creep and to put contractors on notice as to applicable fines, staff has recommended that fences be staked to the ground and signs added to the fences stating that they should not be moved. **FHNA strongly supports the staff recommendations and urges that signage state applicable fines for violations and provide enforcement contact numbers so that violations can be promptly reported.** On the other hand, FHNA also urges the City to allow homeowners and builders to access protected areas during development to

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September 25, 2018

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maintain protected trees and foliage. It would be self-defeating if compliance with the fence requirement weakened the health of the trees and shrubs it was designed to promote.

- **Fines:** As part of its HPO review, City staff recommended stiffer fines and business license revocation for tree code violations. **The City should require prompt remediation of violations and it should adopt significantly stiffer penalties for knowing transgressions.** To foreclose builders from seeking relief by claiming ignorance of the law, the City should require applicants for development permits to attest that they are familiar the terms of Chapter 95.

Thank you for considering these comments.

Respectfully submitted,

FINN HILL NEIGHBORHOOD ALLIANCE



Scott Morris, President

Cc: Deb Powers
Adam Weinstein
Eric Shields
Kirkland City Council
FHNA Board of Directors



May 22, 2018

Kirkland Planning Commission
 Kirkland City Hall
 123 Fifth Avenue
 Kirkland WA 98033

Re: Code Amendments for Kirkland Zoning Code Chapter 70 (Holmes Point Overlay) and
Chapter 95 (Tree Management and Required Landscaping) – File CAM18-00080

Dear Commissioners,

Following are comments from the Finn Hill Neighborhood Alliance regarding amendments to the Holmes Point Overlay ordinance. For the most part, we are in agreement with the City staff on the proposed amendments and we are pleased that we were able to resolve several outstanding issues when we met the Planning Department representatives on Monday, May 7, 2018. We continue to appreciate the time that the City staff has dedicated to working with us on HPO amendments.

At this point, we believe that there are four points on which we have been unable to reach full agreement with staff.

Each of these points is presented below. The first is extremely important and is addressed in detail.

Preservation of existing trees during development activity outside of Protected Natural Areas

General comment: FHNA and City staff have debated extensively how best to preserve existing trees during the development of properties in the HPO. This is a critical issue to Holmes Point residents because they have seen, time and again, the destruction of mature trees on properties during land clearing activities, leaving hillsides open to erosion and increasing the risk of slides. (See photos in Attachment A.) We have not reached agreement with the staff on how to address

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this issue. In this regard, we believe that the proposed amendments to the HPO are unsatisfactory.

The principal purpose of the HPO was to protect existing trees during the development process. The current ordinance says, *without qualification*, that “all significant trees must be retained” on properties in the Holmes Point area. The ordinance has, to FHNA’s knowledge, never been enforced as it was written. Instead, the standard has been interpreted to require something in the nature of preserving trees where it is reasonable or convenient for a developer to do so. As applied, the tree retention standard has been vague, variable, and mostly ineffective.

FHNA proposal: FHNA is not so naïve as to expect that all significant trees will in fact be retained during development. But we do want an objective standard that ensures that a reasonable quantity of mature trees will be protected in the construction process. We have suggested that development should not be permitted to reduce tree canopy to less than 30% over a parcel. This includes the canopy that will be provided in the PNA (covering 25% of the parcel).¹ Our proposal thus requires only a small number of trees on the non-PNA portion of the parcel to be retained. (See our April 24, 2018 letter to the Planning Commission, at page 4, appended as Attachment C.) We are proposing the addition of the following paragraph to the tree retention plan footnotes in Section 95.30:

(7) Development of a property in the Holmes Point Overlay zone is governed by Chapter 70 and shall ensure that the tree canopy on the property shall not be reduced by development activity below 30% at the time of completion of development.

The staff has advised us that it will not support any quantitative standard for the retention of existing trees on lots undergoing development. Staff has argued that a minimum retention standard is unnecessary because the Holmes Point area has been downzoned, an IPD regime has been mandated, and because it has proposed language that all High Retention Value Trees shall be retained. The downzone and the implementation of the IDP requirement are significant benefits: the downzone *enables* more trees to be retained and the IDP process requires a developer to *show* at a project’s outset which trees will be felled and which will be retained. However, neither the downzone nor the IDP imposes substantive *requirements* for protecting trees.

The only requirement for the protection of existing trees suggested by staff is the mandate that High Retention value trees be retained. (See staff’s proposed language of Section 70.20.2.a.) This is a very good suggestion. FHNA supports it. But staff has stated that trees will be classified as High Retention Value Trees only if they are located in “required yards and/or required

¹ When we met with staff on May 7, 2018, we clarified that our proposal seeks to preserve a 30% canopy cover over the entire parcel under development, *including the PNA*. Staff had previously thought that our proposal sought to require a 30% canopy cover over the non-PNA portion of the parcel in addition to whatever canopy cover would be provided in the PNA.

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landscape areas”². Thus, as amended by the staff, the HPO would do nothing to protect trees located outside of required setbacks and yards.

It might be argued that the High Retention Value Tree provision suggested by the staff will result in the protection of existing trees to the extent that a property will retain 30% canopy cover through the development process. If so, the language suggested by FHNA will not be problematic. If the High Retention Value Tree language does not result in the preservation of 30% canopy coverage, however, FHNA’s provision will be needed to ensure that a minimum level of canopy coverage is retained.

Finally, the 30% canopy requirement doesn’t impose new burdens in administration of the HPO. The staff has already recommended that a landscape architect certify in each development’s tree plan that a 50% tree canopy will be achieved in 20 years’ time. Requiring the landscape architect to certify as well that the tree canopy will not be reduced below 30% at the completion of development should not add any meaningful burden to the creation of the tree plan. Note that the language proposed by FHNA has been revised (as compared to what FHNA proposed in its April 24 letter to the Planning Commission) so that it does not prohibit development on properties that have less than 30% canopy coverage at the time development begins. The language prohibits a reduction of existing tree canopy to less than 30% only to the extent that the reduction *results from development activity*.

Protection of significant trees whose Critical Root Zones are impacted during development activity

FHNA has argued that tree retention plans for projects in the HPO should indicate when the Critical Root Zones of significant trees will be impacted by development activities and should also include an analysis by the developer’s arborist showing why such incursions will not adversely affect the viability of those trees.

We are pleased that the staff’s proposed amendment to Section 95.30.4(5) now requires Critical Root Zones (CRZs) to be indicated on the site plan for each project in the Holmes Point area. However, the staff’s revisions don’t require the site plan to indicate whether the arborist has concluded that CRZ incursions will affect the viability of the affected trees. It’s important that this omission be rectified: while it’s good to show CRZs on tree plans, that information is

² The first sentence of the staff’s proposed amendment to Section 70.20.2.a reads more broadly than what the staff may intend: “All High Retention Value Trees, as defined in Chapter 95 KZC, shall be retained in the garden, lawn, and landscaping portion of the property.” This language appears to protect High Retention Value Trees in all such portions of a property, even in gardens, lawns and landscaping areas not mandated by the general zoning for the property (although such areas seemingly must be set aside as garden, lawn or landscaped areas under the HPO – given that the HPO limits the extent of impervious surface on a lot). FHNA notes that Section 95.10.13.a defines a High Retention Value Tree as a viable tree “located within required yards and/or required landscape areas”. FHNA understands that staff intends to apply High Retention Value Tree protection in the HPO only to viable trees in these “required” yards and landscape areas.

essentially meaningless without a conclusion as to whether the trees will survive incursions into those CRZs.

FHNA proposal: Accordingly, FHNA recommends that the staff amendment to 95.30.4(5) be supplemented as follows (with FHNA language shown in red italics):

- (5) Indicate limits of disturbance 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). For properties located in the HPO, Critical Root Zones³ and Inner Critical Root Zones must be indicated, *and if any disturbance is proposed within such Critical Root Zones, the plan must indicate whether, in the opinion of a qualified tree professional, the affected tree will be viable following such incursion and what aftercare procedures (if any) will be needed for continued viability. The plan will not be approved by the City unless a qualified tree professional appointed by the City concludes in writing that the proposed incursion will not render the tree non-viable and further specifies that the appropriate aftercare procedures (if any) are appropriate and are conditions to the approval of the plan.* If any disturbance is proposed within the 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....

Modification of tree retention plans following the removal of trees previously identified for retention

Section 95.30.6.3 allows a developer to seek a modification to a tree plan following tree removals that did not comply with the plan. In order to ensure the integrity of tree plans and to dissuade developers from attempting to rectify plan violations after the fact, the standard for granting such modifications in such cases should be high. FHNA has proposed language for a strict modification standard. Without such language in the code, we are concerned that developers could abuse the provision to seek modifications.

FHNA proposal: We therefore recommend that the following subparagraph be added to Section 95.30.6.3:

- (b) The failure to seek modification of the Tree Retention Plan prior to removal of trees in violation of the plan was due to a need to eliminate an imminent threat to safety or property not created by the applicant;*

³ A conforming change should be made to the tree retention plan table in Section 95.30.5: the new language that reads "Indicate Inner Critical Root Zones of significant trees on properties in the HPO per 95.10.xx" should be revised as follows: "Indicate Critical Root Zones of significant trees on properties in the HPO per 95.10.2."

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Maintenance of replacement trees outside Protected Natural Areas

The staff's proposed amendment to Section 70.20.8(b) specifies maintenance requirements for non-PNA replacement trees by referring to Section 70.15.2, which describes the terms under which significant trees outside the PNA may be *removed*. The staff's proposed amendment to Section 95.51.4, which specifies maintenance requirements for trees in the Holmes Point area, states that trees outside of PNAs must be maintained pursuant to Sections 70.20.8(b) and 95.23. As noted above, Section 70.20.8(b) refers to Section 70.15.2 – a tree removal section – and Section 95.23 likewise deals with tree removals. There is no clear statement in either Chapter 70 or Chapter 95 setting forth the obligations to *maintain* non-PNA replacement trees.

FHNA proposal: We recommend the addition of appropriate cross-references to Sections 95.51.1-2, which state that required trees must be replaced in kind and maintained for 5 years. Specifically, Section 70.20.8(b) should read:

- b. Non-PNA portions of the lot...shall be maintained per Chapter 70.15.2 KZC *and Chapter 95.51.1-2 KZC.*

And Section 95.51.4 should be revised as follows:

- 4. Maintenance in Holmes Point Overlay Zone. Trees and vegetation in designated Protected Natural Areas in the Holmes Point Overlay Zone are to be protected in perpetuity pursuant to KZC 70.20.8(a). Significant trees in the remainder of the lot shall be maintained pursuant to KZC 70.20.8(b), KZC 95.23 and *95.51.1-2.*

Requirement the tree retention plans include a landscape architect's determination that a 50% tree canopy will be achieved in twenty years

The staff has recommended that tree retention plans in the Holmes Point Overlay zone include a determination by the developer's landscape architect that the project's tree canopy will be 50% within twenty year's following completion of development activity. As we previously advised the Planning Commission in our April 24 letter, FHNA strongly supports this requirement.

We have asked the City staff whether the landscape architect's conclusion can be based on an assumption that 50 tree credits per acre (the required minimum tree density on non-PNA portions of HPO lots) would equal 50% canopy coverage in twenty years' time. The staff has advised us that this will not be the case and that other, more reliable data regarding canopy coverage will have to be used. This is reassuring and important because FHNA is convinced that tree credits – which reflect trunk diameter – do not equate to tree crowns in a straightforward fashion and therefore cannot be used to predict tree canopy coverage without sophisticated, species-specific refinements. The suitability of tree credits as a proxy for canopy coverage is particularly fraught when applied to native conifers. See Attachment B for an analysis of the unreliability of tree credits as a predictor of canopy coverage.

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Thank you for considering these observations on a regulation that is very important to the Holmes Point community.

Respectfully submitted,

FINN HILL NEIGHBORHOOD ALLIANCE

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

Scott Morris, President

Attachments: Development photos, tree credit/canopy analysis, FHNA letter of April 24 (with attached proposed revisions to Chapters 70 and 95)

Cc: Janice Coogan
Jeremy McMahan
Adam Weinstein
Eric Shields
Kirkland City Council
FHNA Board of Directors
FHNA Ad Hoc Committee on HPO

Attachment A

Photos showing recent development activity in the Holmes Point Area

Note that although trees have been retained on the perimeters of the properties to be developed (where PNAs are located), the interiors of the properties have been cleared of all trees.

Development at 73rd Place NE between NE 118th Place and NE 120th Street



Development at 68th Avenue NE – NE 124th Street (north of O.O. Denny Park)



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Attachment B

FHNA analysis of the relation between tree credits for deciduous and coniferous trees and tree canopy percentages

Memorandum
May 2018

To: Kirkland Planning Commission

From: Finn Hill Neighborhood Alliance (FHNA)

Subject: Kirkland's Tree Credit Requirements Don't Work for Native Conifers

This document summarizes recent calculations to evaluate numerically whether current and proposed tree credit requirements in KZC 95.33 are adequate to meet Kirkland's canopy coverage goals for native conifers in the Holmes Point Overlay (HPO) area. The conclusion is that they are not. The reason they are not is that native conifer growth rates are much slower than those for the non-native deciduous species Kirkland has used to justify the current tree credit requirements.

In a white paper prepared by Staff in February 2018, entitled *Holmes Point Overlay Code Revision, Tree Density Credits & Canopy Cover*, an example calculation with the non-native deciduous species Red Maple was used to assert that Kirkland's current tree credit requirements are adequate to meet the current citywide canopy coverage requirements of 40% (although the HPO aims to achieve a higher canopy goal). Specifically, using Red Maple for supplemental plantings the white paper calculated canopy coverages 20 years after planting of 100% coverage in the Protected Natural Area (PNA) and 21% coverage in the remainder of a one-acre lot (non-PNA), yielding 42% coverage on an idealized 1-acre lot. (As a side note, there was apparently an arithmetic error in this original calculation, with the correct estimates being 85% in the PNA and 17% in the non-PNA, for an overall lot coverage of 33%, not 42%). The key issue is that when these exact same calculations are made using 20-yr growth rates for native conifer species, the projected canopy coverages fall far short of current or proposed HPO canopy goals, as illustrated in Table 1 below. Note that the conifer growth rates and 20-yr canopy areas used in Table 1 are based on large, long-term U.S. Forest Service statistical databases, specific to western Washington.

[See table on next page.]

Table 1: 20-yr Canopy Areas for Various Tree Species and Credits Req'd for Kirkland's Goals

Common Name	Spread at planting (ft)	20 yr canopy area, avg (sq ft)*	Non-PNA					PNA
			20 yr non-PNA canopy cover @ 30 credits/acre	20 yr non-PNA canopy cover @ 50 credits/acre	Tree credits/acre req'd for 21% canopy at 20 yrs	Tree credits/acre req'd for 33% canopy at 20 yrs	Tree credits/acre req'd for 50% canopy at 20 yrs	Tree credits/acre req'd for 100% canopy at 20 yrs
Douglas fir	3-4	225	15.5%	25.8%	41	64	97	194
WR Cedar	2-3	127	8.7%	14.6%	72	113	171	343
Hemlock	3-5	148	10.2%	17.0%	62	97	147	294
Red Maple	5-7	245	16.9%	28.1%	37	59	89	178

*Native conifer growth rates and canopy area at 20 yrs estimated by U.S Forest Service. See <https://www.fs.fed.us/fvs/documents/guides.shtml>, Westside Cascades variant

As an example, note that 97 credits per acre (vs the proposed 50 or the current 30) would be required to achieve Kirkland's proposed 50% canopy cover with Douglas fir in the non-PNA. Moreover, with Douglas fir 194 credits per acre (vs the current 150) would be required to achieve the required 100% canopy in the PNA. The shortfalls are worse for the other two native conifer species in the table. Red Maple is a poor proxy for the predominantly native conifer forests common today in the HPO area, but even Red Maple cannot meet the proposed canopy goals.

Table 2 shows the percent canopy coverage in the non-PNA area required to achieve various overall lot canopy percentages, assuming the required 100% canopy percentage in the PNA. It is clear from Table 2 and the examples in Table 1 that for all conifer species except Douglas fir, the citywide canopy goal of 40% cannot be met, and for proposed total canopy goals of 50% and higher not even the proposed increase to 50 tree credits/acre in the PNA will cause the goals to be met.

Table 2: Canopy Coverage Required in Non-PNA for Various Total Lot Canopy Goals

Total Lot Canopy goal (%)	40%	50%	63%
Assumed PNA Canopy (%)	100%	100%	100%
Required non-PNA Canopy (%)	20%	33%	50%

Several conclusions are clear from the above examples:

- The current tree credit requirements for post-development supplemental plantings do not meet Kirkland's current goals for 20 yr canopy area, as stated in KZC Chapter 95.
- The shortfalls in 20-yr canopy area are especially glaring when the native conifer species common in the HPO area and the Finn Hill neighborhood in general are included in the calculations.
- Staff's proposed increase to tree credit requirements (50 credits/acre in non-PNA area) is too low to ensure that Kirkland's canopy goals are met for native conifer species.



October 13, 2017

Kirkland City Council
123 – 5th Ave.
Kirkland, WA 98033

Re: Tree Code and History
LONG FORM 2/2

Honorable Councilmembers,

Although we do not see it posted on the Council website, Merit Homes understands a Council study session is planned for Tuesday, October 17 regarding trees. As a top homebuilder in the City, we have tremendous interest in this issue. Late last year, we conducted a review of the City's code history on trees. Upon finding out it was to be studied by the full Council soon, we decided to refresh the memo created then, in hopes that a clearer path can be found.

This letter is the full version of a shorter statement provided concurrently.

Early interest in trees leads to Code update

Kirkland has a history of preserving tree canopy within its borders. Starting in the new millennium, expansion was studied in a constructive, bottom-up fashion:

- 2001 – City completes first Tree Management Review, with recommendations to improve tree canopy
- 2003 – 40% canopy goal adopted in Natural Resources Management Plan
- 2005 – 40% canopy goal incorporated with GMA Comprehensive Plan update

The Growth Management Act requires agencies to synchronize their comprehensive plans and land use codes. That alignment is evident with the 2005 Comprehensive Plan and code update efforts the same year. Early code work identified tree density and tree credits as desirable measurement tools.

Planning Commission discussion of the update was held on at least five occasions under File IV-03-101:

[5-26-17 planning commission minutes](#) – *Commission agrees with density concept*

[7-14-05 planning commission minutes](#) – *Continued discussion of density approaches, consensus that a tree credit/density requirement should apply in the case of redevelopment or new development*

[7-28-05 planning commission minutes](#) – *Further discussion of credit/density approaches*

[8-11-05 Planning Commission minutes](#) – *Public hearing; Short plats to apply minimum tree density; particulars of credit/density methods discussed; regarding 40% canopy requirement, noted roughly 32% canopy cover - goal to retain and enhance canopy; recommendation to Council to adopt code*

[8-25-05 Planning Commission minutes](#) – *Minor adjustments to recommendation*

Audio recordings are available online, some of which are intelligible. From the 5-26 transcript, it appears at least one earlier meeting was held, though online archives don't go back far enough to affirm. These meetings carefully reviewed credits as *the* regulatory basis to achieve compliance with 30 credits per acre tied to 40% canopy coverage (according to Purpose section of original adoption - Ordinance 4010). Of three options, Planning Commission forwarded 'Alternative 2', with credit provisions, later considered by Council:

[11-1-05 Council minutes adopting Ord 4010](#)

[12-13-05 Council minutes adopting Ord 4026](#)

New Chapter 95 became effective 1-1-06.

Early practice

A public release bulletin dated effective 1-1-06 was released - titled "**Notice to Our Customers – New Tree Regulations – Short Plats and Subdivisions**" (attached). This document included a detailed explanation of the new credit/density provisions, including an example of application.

It appears first application of the new code was produced by Brian Gilles in a report for the Dawson Short Plat, SPL06-0001 and dated 1-18-06. Mr. Gilles had been active in the Planning Commission process. This report included analysis of tree credits, citing Ordinance 4010. Merit does not have staff review nor decision, but the initial report is clear in its use of credits in appraising compliance with the newly minted tree code.

We do have other decisions showing how the new tree code was applied soon after passage: The "Arr Short Plat" – file number SPL06-00024, decision 11/13/06, was a Merit short plat of 3 lots on .69 acres:

B. Recommendations

3.e. "Pursuant to Kirkland Zoning Code Section 95.35.5, the applicant shall provide a minimum of 21 tree credits for the short plat site. If after selecting the trees to be retained at each phase in the development, the site falls below the minimum required tree density, replanting of trees will be required to meet the minimum density

E. Development Regulations – analysis

2.a.7. "Kirkland Zoning Code Section 95.35.5 establishes minimum tree density requirements. For a short plat or subdivision, with an approved Tree Plan III, the tree density shall be calculated based on the entire site area excluding existing City right-of way, or areas to be dedicated as City right-of-way. The minimum tree density is 30 tree credits per acre. The gross site area is 30,031 square feet or .69 acres. Based on the requirement of 30 tree credits per acre, the proposed short plat site must provide a minimum of 21 tree credits.

2. b.1. "The applicant has provided a Tree Plan III with the short plat application that has been reviewed by the City's Arborist. There are 37 viable trees on the site, 21 Type 1 trees and 16 Type 2 trees. The minimum of 21 tree credits is met for the short plat."

We also have the full Casady Short Plat decision and appeal, SPL06-00014/APL06-00015, dated 10/23/06 and 12/28/06 respectively. That project was reviewed consistently with Gilles' initial report and Arr.

These three illustrations show, at the time when logic, approach, and hearings were fresh in the minds of all - that tree density and credits were paramount – as presented to, and decided by Planning Commission and Council.

Code Revisions

Minor revisions were made to the tree code nearly every year of its existence, through Ordinances 4010, 4026, 4030, 4037, 4097, 4121, 4226, 4238, 4252, 4281, 4286, 4350, 4372, 4408, 4437, 4476, 4491, 4495, 4547, and 4551. Nearly all were minor updates and none meaningfully revised original compliance strategy.

There are a couple of highlights out of 12 years of revisions. Ordinance 4238, adopted 3-2-10, resulted from a concerted update effort and numerous Planning Commission and Council hearings, beginning in 2008 and mostly occurring in 2009. That history is all available in the City archives. Mostly, it was an organizational effort, with some minor amendments. The most complete narrative of the focus I could find is in a [Study Session memo to HCC 8-10-09](#).

This document went to the Houghton Community Council, explaining overall City goals and process. Neither this document nor strikeout/underline version of Ordinance 4238 meaningfully changed compliance principles. However, this revision marks the first appearance of a table under KZC 95.30 outlining which types of projects carry certain reporting and documentation requirements. In this table appears language surrounding 'maximum extent possible or feasible'.

This language was not new with Ordinance 4238, in fact near-identical language appeared in Ordinance 4010 – *in the same section as discussion of credits* (Original KZC 95.35.1). This table did not meaningfully change spirit, intent, purpose, nor execution – however it is important because this is the verbiage relied upon by staff when questioned why credits are no longer used in review.

The other revision highlight is much newer, having been adopted 12-13-16. Ordinance 4547 isn't notable for its changes, rather for its reinforcement of credit-based review of tree compliance. In that version, KZC 95.33.1 states: *"In calculating tree density credits, tree credits may be rounded up to the next whole number from a .5 or greater value.* Further, KZC 95.33.1.b. provides that *"Existing native conifers (or other conifer species as approved by the Urban Forester) shall count 1.5 times credits for retention."* And finally, 95.33.1 table guidance added clarification on credit calculation methodology. This revision is less than a year old.

Canopy

Throughout the years, City has made best efforts to track progress toward the 40% canopy coverage goal. In 2003, coverage estimate was 32%. Comprehensive Plan estimate in the 2010 "Performance Measures" report under the "Environment" section, a finding of 36% coverage was found. The same figure was published in June, 2011 - "Urban Tree Canopy Assessment Report". However, the July, 2013 "Urban Forestry Strategic Management Plan" found the goal to have been exceeded at 40.7%.

2013 Urban Forest Management Plan, adopted by Resolution R-4986, 7/2/13. A few excerpts:

Growth and Community Vision – Page 6; *"The link between growth, environmental degradation and an alarming loss of tree canopy cover in the Puget Sound region prompted many jurisdictions to act on a local level (American Forests, 1998). Kirkland responded with changes to its Comprehensive Plan, including the community's vision of the natural environment with a specific goal to "work toward increasing Kirkland's tree cover to 40 percent" (V-8 Policy NE-3.1). "Recognizing that the highest percentage of tree canopy was on private property, the Kirkland City Council adopted a comprehensive tree protection ordinance in late 2005 with the intent to slow the loss of tree canopy city-wide. To restore the declining native forests in City parks, the Cascade Land Conservancy partnered with the City (now Forterra) to prepare a 20-Year Forest Restoration Plan that was adopted by the City Council in 2008."*

City of Kirkland Comprehensive Plan – page 17 – *“The Comprehensive Plan reflects Kirkland’s intent to meet the requirements of the GMA and attain the community’s vision of the future. When Kirkland’s Comprehensive Plan was updated in 2005, it included direction to meet a citywide 40 percent tree canopy cover goal (Policy NE-3.1). This goal has played a key role in increasing tree canopy cover over the previous decade.”*

Tree Protection Codes - page 17- *“In late 2005, the City established a tree protection ordinance by adopting Chapter 95 of the Kirkland Zoning Code (KZC). The purpose of this ordinance is to support the Comprehensive Plan’s city-wide 40 percent canopy goal. The code establishes a permit process and standards for the protection and replacement of trees on private and public property.”*

5. Current Performance Assessment – *“Criteria: Existing Canopy Cover Status; Page 45*

Performance - Optimal

Current Status - 40.7% canopy cover following the 2011 annexation; consequently the City has met its 40% canopy goal. *The City can shift towards maintaining its canopy cover and achieve acceptable levels of urban forest health and sustainability.* (emphasis added)

Benefit - *Optimized ecosystem services and equality between zoning, land use, watersheds or business district canopy cover % goals.”*

In brief summary, the 2013 study found that City had surpassed its 40% coverage goal and that ongoing regulatory measures could shift to a focus on maintenance of that canopy rather than expansion.

Transition to now

In 2005, the Comprehensive Plan aspired to achieve a canopy-coverage goal of 40% and a companion ordinance was passed using tree credits as a measure to aspirationally *increase* performance toward that goal. 30 credits per acre was the tool, and accomplished that goal.

Current Practice

Current guidance still expresses canopy coverage intent in now-retrospective terms:

KZC 95.05 Purpose and Intent (current code)

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 City-wide tree canopy coverage of 40 percent.**”* (emphasis added)

2016 Comprehensive Plan Environment Element - Policy E-2.1: *“Strive to achieve a healthy, resilient urban forest with a citywide 40 percent tree canopy coverage.”*

As they have throughout the current regime, code and comprehensive plan align on the goal. There was one requirement for retention in 2005, unchanged to today – preservation of 30 tree credits per acre to attain a 40% tree canopy coverage, City-wide.

Where official, Council-adopted guidance finds the primary goal (canopy) to have been met, and recommends *decreasing* the intensity of tree preservation requirements, current practice is quite the opposite. Two elements conspire – 1) credits have been largely abandoned, resulting in 2) total number of mandated ‘save’ trees often far exceeding actual code requirement.

A few examples:

- Petra short plat SUB15-01226 decision 10/21/15 - Detailed review by City Arborist - No credit analysis
- Eos E. short plat SUB15-01218 decision 11/24/15 - Detailed review by City Arborist - No credit analysis
- Opus short plat SUB15-01570, decision 1/28/16 – Detailed review by City Arborist - No credit analysis
- Koi short plat SUB16-00171 decision 9/28/16 - Detailed review by City Arborist - No credit analysis
- NoKi short plat SUB16-0140 decision 10/11/16 - Detailed review by City Arborist - No credit analysis

Summary

Planning Commission and Council provided clear direction regarding tree policy in 2005, which was faithfully interpreted and implemented for some time after original adoption. Since, there has been sufficient regulatory 'drift' as to be unrecognizable from its outset.

General logic would indicate that a goal achieved would beg new ambition. That could be a mere reframing of the 40% *in new voicing to clarify its having been reached and desiring not slipping below*. Or now maybe a 45% goal is appropriate. It cannot be said there is an official goal now.

Purpose and intent is a frequently misused concept, tossed around to fill in spaces between clear language of the law. As the courts would express it, that concept is valid where language is lacking. In such case, they would find legislative history elemental to any finding. That is what I've tried to do here – refresh where we've been to inform those decisionmakers empowered to correct course. I can find no council-directed guidance away from credit-based review and in fact recent reinforcement of same.

I'm not an attorney but have read the law. Kirkland's code is quite clear and specific in its use of credits and density in decisions. We are told a phrase as amorphous and open-ended as 'maximum extent feasible' is intended to *replace* clear requirements. The specific overrules the general. KZC 95.33.1 spends 435 words explaining usage of credits. Are we to overrule that with 'maximum extent feasible'?

The code is also to be read to harmonize its various parts. Council's adopted position accomplishes that neatly. Finally, it is a strain to imagine a standard effectively expressed as 'whatever we ask of you' upheld.

Trees are Merit's most challenging legal issue. There is no effective, consistent way to describe current practice. None. Every single project, we guess and do our best to skirt the worst of what might bite us. Predictability is our best friend and this issue presents less of it than anything else we do. We've been looking for an opportunity to have this discussion for well over a year.

We appreciate the City's consideration of this issue. If this review has missed important aspects of the code evolution or practice we look forward to being further enlightened. The proper approach is to get back to Council's intent with clear-minded reviews. This would make life much easier on City and applicants.

It is less our goal to reduce standards than it is to clarify them. If Council decided to double the code requirement, it would be far easier to deal with than our daily experience.

Thanks very much for your consideration,

S. Michael Smith,
Development Manager



November 7, 2018

Kirkland Planning Commission
123 – 5th Ave.
Kirkland, WA 98033

Re: Tree Code Update Comments

Honorable Commissioners,

Merit Homes is an active homebuilder in Kirkland. At any given time, we have a dozen or more subdivision applications pending and 25 of our homes are currently under construction in the City. Over the last 12 months, we've paid the City \$1,103,000 in subdivision and building-permit-related fees.

We're familiar tree code operation, it is by far our most challenging issue. I attended the September 21 stakeholder meeting and can attest the room's awareness of current practice was fully and properly formed. However, Staff reports that:

"It was observed that . . . there were many incorrect assumptions made about the code, pointing for the need to provide ongoing public education beyond the implementation phase of this code revision."

Nobody at that meeting was making any assumptions, they were universally speaking from experience. To assert the building community needs "ongoing public education" to understand our businesses is misguided.

Further, and more troubling, none of our input translated into the Staff Recommendations. We disagree with the Finn Hill Neighborhood Alliance's position that a 'canopy system' would improve on one based on credits, however Staff goes even further, preferring *no objective measures*. In 25 years as a land use practitioner, I've never seen such an unworkable nor extreme position from any agency Staff.

Stepping back, the record indicates the Commission may have been given a partial impression of Code history and current practice. Last year, I did a research project on tree code history. This is included in Exhibit 10, starting page 160 from the November 8 Staff package. In brief, City decided trees were important, installed a 40% canopy goal in its Comprehensive Plan, then in 2005 negotiated/enacted the basic form of today's Code, with tree credits at the heart of Code operation. This went into effect January 1, 2006.

CREDITS

Initially, credits were used faithfully. I have multiple project decisions clearly reflecting this. Over time, credits faded into the background and today they have been excised in all but a few outlying cases. Today, there is no credit review and nothing has replaced them. Today's practice is predicated on opinion, not measures. Staff simply decides, case-by-case, how Owner rights are balanced with tree retention.

This is how Staff prefers to run project reviews. In the November 8 Recommendations to the Commission, that preference is made clear (*see Quantitative Review Standards Recommendations 40, 75, and 77*).

From their view, this would allow them to require preservation just short of getting sued for total regulatory taking under Constitutional inverse condemnation. A further recommendation states that Reasonable Use should not be adopted for trees (*see potential change #70*), but Reasonable Use and inverse condemnation avoidance are the same thing. Reasonable Use, all over the Puget Sound, was created specifically as a safety valve to *avoid getting sued for inverse condemnation*.

Further, the *context* of Reasonable Use is within the Critical Areas framework (wetlands, streams, steep slopes). These are defined in the State GMA [36.70A.030(5)], and faithfully reflected in Kirkland's Zoning Code at 5.10.179.5. Kirkland's Reasonable Use provisions are found at KZC 90.180, within the Critical Areas chapter. Trees are not Critical Areas by State definition, nor Kirkland's, and yet Staff's recommendations lean toward creating a brand-new critical area in treatment, if not definition. It's further notable that actual Critical Areas have objective review standards.

Today's practice toes the line of Reasonable Use already – today – with no code guidance. At page 178, Exhibit 10 in the November 8 package, I sent an example of one of our homes. In that case, we had to modify our application multiple times at considerable cost and delay, with an ultimate requirement of 1,230% of Code requirement on tree credits.

With current practice:

- It is impossible to determine preservation requirement by reading the code;
 - Because of this, some reviewers are more reasonable and others less so;
 - Our early work to vet property (feasibility) can be nearly impossible;
- Properties are not treated equally – adjoining 7,200 SF lots could vary in value \$100,000 or more;
- Credits *should* organize the entire code – without them any tree Staff wants to preserve becomes "high priority" or *must save*, regardless of definitional compliance.

City Staff has said repeatedly that existing Code requires the current, unsettled approach and that they wish an objective standard were in place. Everyone wants predictability, measurable success is the goal of every land use rule. Setbacks, FAR, building height, Lot Coverage, insulation standards, etc. etc. Codes are written with repeatable, definitive, and defensible protocols because they work. A code everyone can read, that treats people and properties equally should not be controversial. That should be the expectation here.

IDP

Staff recommends IDP be required City-wide. Late last year, I had a lengthy email exchange with Jeremy McMahon on benefits and downsides of IDP. There is very little code difference between IDP and Phased reviews, limited to a few statements at KZC 95.30.6.

As currently practiced, IDP requires assessing all development at project beginning, which negotiation can't start until survey and arborist report are complete (6 weeks), and the first presubmittal meeting is held (3 weeks). Absent any retention standards, the City then has free rein with project design, potentially ignoring owner wishes, utility needs, access requirements, and anything else not tree-related. On a new project, an applicant has no idea what to expect, what development conditions will be, or how to appraise a property until the 3rd month of work.

Feasibility is the business term for project workability *and whether it is likely to make money*. Our policy avoids survey, arborist, and engineering until we're confident (because those tasks cost thousands of dollars). Without meaningful feedback from the City and especially if they have design influence, the equation becomes unfavorable. Further, property sellers frequently don't allow months for feasibility review. IDP puts us in a bind from multiple angles:

- *Large sites compared to small* – Big projects can require a considerable earth-moving for access and utilities. This doesn't leave much room for saving trees, which Staff generally accepts. In a larger project, there can also be more room to adjust design without major compromise to the product. In these cases, IDP works well.

By contrast, short plats 1) usually don't mass grade - no immediate need to clear trees; 2) do not have physical space to adjust design without penalty; and 3) any loss of building value, even one compromised lot, can ruin a project as there aren't a number of other lots to defray problems.

- IDPs put Owner-driven and other nonprofessional applicants at a disadvantage. Upfront work is expensive and demands knowledge of (and commitment to) end-product. Owners creating value through subdivision applications usually don't build out, making those negotiations difficult.
- Because of the previous point, transferring applications between controlling interests becomes harder. Merit buys in-process short plats - we don't want another builder's product. From their view, time/money spent on buildings is wasted, and really so is Staff time in those reviews.
- Schedule/cost – The process is already lengthy and expensive. All the feedback we've received is IDP adds to both, sometimes tremendously. Add to that unpredictability of outcome and the business view is quite negative.

In the November 8 Commission package, Staff indicated IDP was preferable, at least in part because the process is more 'prescriptive'. They've also advocated to continue current practice without objective standards. These statements are polar opposites – 'prescriptive' is like a building setback, 5' side yard, 20' front, etc., or building heights – *30' and here's how to calculate*. Prescriptive requirements are those that 5 people can read and arrive at the same interpretation.

I assume what was meant is that tree requirements are settled earlier in the process with IDP, rather than reviewing the issue multiple times. This is not, by itself, a bad goal. Where it goes wrong is in *also* removing any objective standard for retention. Given a blank design slate, and infinite allowance to design around trees, regulatory abuse is inevitable.

IDP is a good alternative but doesn't fit every situation, Phased Review should remain a choice.

Suggestions

IDP would work better if an objective standard were employed, *and* full sites could be reviewed for compliance rather than lot-by-lot as required now. If most great trees are in good locations on one or two lots, and the other lots have poorer quality or placements, why not allow retention to be concentrated?

With some Code changes, applicable to both Phased Review and IDP, fairness could be increased. From our viewpoint, creating a Code with boundless requirements, subject solely to a reviewer's opinion, is unworkable. The credit system which has been deactivated, would work if it were actually used. The Finn

Hill Neighborhood Alliance proposes a different metric – canopy coverage, to tie into Comprehensive Plan goals.

Another possibility is backstop protections, providing that tree conditions cannot reduce lot count nor prevent construction of homes fully compliant with all other regulations (of which there are many).

I hope a functional system for preparing and reviewing development applications can come out of this process, and look forward to continuing dialog.

Thanks very much for your consideration,

S. Michael Smith,
Development Manager



November 18, 2018

Kirkland City Council
Kirkland City Hall
123 Fifth Avenue
Kirkland WA 98033

Re: Item 11a of November 20, 2018 meeting agenda:
Code Amendments for Kirkland Zoning Code Chapter 95

Dear Mayor Walen and Council Members,

The Finn Hill Neighborhood Alliance (FHNA) has actively participated in the City's review of its municipal tree ordinance, set out in Chapter 95 of the Zoning Code.

We appreciate the hard work that City staff members put into this project, and we support many of the proposed revisions that the staff has recommended, such as a requirement for integrated development plans throughout Kirkland and the use of more precise definitions of trees that should be retained during development activity.

However, we have not yet reached an agreement with the staff on a policy for tree planting on developed lots. We continue to support a standard that is based on expected tree canopy percentages rather than tree credits or what appears to be a new staff proposal for planting a certain number of trees on developed lots that are "devoid of trees". A tree canopy-based system is simple, is directly related to the City's tree canopy goal, and can be implemented in a predictable and objective fashion. We believe the Planning Commission has shown interest in pursuing this approach. The City should continue to consider it.

The Council should also know that FHNA met with the Master Builders Association earlier this month to discuss tree retention and tree planting issues. While our conversation was preliminary in nature, we are hopeful that we can find common ground on several important matters, including tree planting standards. We have informed the Planning Commission and the

Letter to Kirkland City Council
November 18, 2018

Page 2

staff that we would like the opportunity to meet again with the Master Builders in December. We hope to bring joint proposals back to the staff for refinement.

Accordingly, we ask that the Council allow FHNA, the Master Builders, and the staff the opportunity to work together in December and, if necessary, January, to produce code revisions that will garner the greatest support from builders and City residents.

Respectfully submitted,

FINN HILL NEIGHBORHOOD ALLIANCE



Scott Morris, President

Cc: Deb Powers
Adam Weinstein
Kirkland Planning Commission
FHNA Board of Directors
Gina Clark, Master Builders Association



November 19, 2018

Kirkland City Council
123 – 5th Ave.
Kirkland, WA 98033

Re: Tree Code Update Comments

Honorable Councilmembers,

Merit Homes is an active homebuilder in Kirkland. At any given time, we have a dozen or more active subdivision applications, and 25 of our homes are currently under construction in the City. Over the last 12 months, we've paid the City \$1,103,000 in subdivision and building-permit-related fees.

We're familiar with tree code operation, it is by far our most challenging issue. Having today received the code review package from Staff, a few things should be added. Page 2 states:

"As a foundation to the code update project, the background of Kirkland's tree code and a description of how the code currently works was outlined in the June 28, 2018 memo . . ."

The 6/28 memo carefully outlines the 'credit system', but Council must understand the vast majority of projects do not use credits. Interpreted as minimums only, once credits are exceeded, they become nonoperational. We must share a common understanding of existing practice. The package that went to Planning Commission 11/8 included an example of ours which required 1,230% retention compared to code.

Staff proposes we continue this approach, while the building community disagrees, preferring standards. Before the 11/8 Planning Commission meeting, a few members of the Master Builders group met with Scott Morris and Ken Goodwin of the Finn Hill Neighborhood Alliance. That meeting was fruitful and both groups believe there are areas of substantive agreement on Code direction.

MBA and FHNA attended the November 8 Planning Commission hearing and communicated our intent to keep working to the Commission. FHNA agrees with the MBA that we need an objective, consistent, and repeatable system. Commission members were enthusiastic about this collaboration and encouraged us to continue, on which all parties agree. Further meetings are expected following the Thanksgiving holiday.

Thanks for your hard work on this challenging issue,

S. Michael Smith,
Development Manager



November 20, 2018

Honorable Amy Walen, Mayor
 Kirkland City Council
 123 5th Avenue
 Kirkland, WA 98033

RE: KZC Chapter 95 Update Tree Protection Ordinance Amendments

Dear Mayor Walen and Kirkland City Councilmembers:

The Master Builders Association of King and Snohomish Counties (MBAKS) is pleased to provide comment regarding updates to the Tree Protection Ordinance Chapter 95 Kirkland Zoning Code (KZC). With nearly 2,900 members, MBAKS is the largest local homebuilder's association in the United States. Our members are dedicated to working with local jurisdictions to build quality, accessible housing while ensuring they comply with codes that strive to preserve community character and protect the environment.

I. MBAKS Responses to Staff's Initial Proposals Regarding KZC Chapter 95

MBAKS members have been coordinating with City staff to discuss proposed ordinance updates. We sincerely appreciate staff's time and effort, consideration of our feedback, the openness of process, and striving to craft an ordinance with greater clarity to make implementation easier for the city and applicant compliance more straightforward.

Although a draft amended ordinance is not yet completed, MBAKS offers these suggestions based on staff's November 8th presentation to Planning Commission:

95.25: MBAKS supports clarifying the code to reflect current green building standards to incentivize sustainable site development. MBAKS offers our Built Green team, the largest Built Green program in the United States, as a resource to the city, to provide data, regulatory updates, best practices, and incentive programs to help the City as it updates its code.

95.30.5(3): As discussed during the Holmes Point Overlay Amendment, MBAKS opposes amended language requiring all high retention value trees be "required to be retained" rather than "to the maximum extent possible," and if it is also still being considered, we are also opposed if a property owner needs to "exhaust all variations and incentives allowed by code in KZC 95.32 to retain trees "with the only remedy being variance review." MBAKS does not believe there is an issue with high value trees



not being retained to the maximum extent possible by its members, and that more restrictive regulations are unnecessary. In addition, variance review is costly and time consuming, adding to the cost of homes and the shortage of housing.

MBAKS, however, has been working closely with members of the Houghton Community Council (HCC) and has begun meetings with the Finn Hill Neighborhood Association (FHNA) to find common alignment on this contentious issue of the code. Please see Section II for additional information.

95.33.4: Although MBAKS initially did not support limiting the number of points/tree credits for the use of arborvitae on a site because each site and landscape plan has unique characteristics and value, MBAKS understands the need for species diversity and is willing to find common agreement on this issue with the City, HCC and the FHNA as amendments to the ordinance continues.

95.57: If the City is to specify preferred tree locations, including distances from landscape features/hardscapes, we would urge additional discussion with industry, including our landscape architects and arborists, before codifying any language creating overly burdensome design regulation on the use of footprint, property or house design by owners.

95.60: MBAKS agrees with the City there is needed clarity for retention and replanting requirements. The City has a good tree credit system. What is at odds is how the system is interpreted and even more so, whether the tree credit is even used by the City. There are competing systems within the City's own code; one telling developers and builders they can get credits and comply with the tree retention and replanting requirements if they retain a certain amounts of trees.

And another that requires such things as preservation of heritage trees, retention of high value trees, and grove maintenance. These often take precedence over tree credits, leaving discretion, room for interpretation, multiple rounds of review, unplanned costs, and project delays, and is often the biggest hurdle while leaving the most unanswered questions at feasibility.

MBAKS supports staff's initial proposal to clarify the definition of high retention trees by focusing on high value retention trees only (and eliminating the category of low and moderate value). Please see Section II for additional discussion.

95.61: MBAKS supports keeping the payment in-lieu of planting new trees and would support updating the code with industry standards for in-lieu payment methodology. The in-lieu fee payment could be used in a variety of ways including creating a mitigation bank to fund programs to plant trees in "tree desert" areas of the City,



programs to support species diversity in areas of most need, or neighborhood replanting programs.

95.64.10: MBAKS supports preservation of heritage trees where it does not limit the development potential of a property or constitute a constitutional taking of land or property rights. The heritage tree must also be worthy of retention. Trading tree credits, establishing a heritage tree mitigation bank, offering built green incentives, and/or simplifying the heritage tree retention definition so it's clearer when and why a tree should be preserved are examples of how to increase the preservation of heritage trees.

95.65: The industry does not support including landscape architects in the design review process. This is not the role of a landscape architect, there are no standards in their industry to support this and it significantly increases costs for review.

95.68: MBAKS supports species diversification of trees for environmental, sustainable, biological, and climate importance, but agree with staff that further inclusion in the broader discussion and goals of the City is required if on private land.

95.71 The Built Green team at MBAKS is a valuable resource to help the City with data, best practices and regulations to help competing interests of light and shade when tree canopy and solar compete to balance sustainable energy needs and goals.

95.73: MBAKS members represent a wide spectrum of the development industry. While integrated development plans (IDP) work for large developers and builders who often clear large subdivisions with many plats, they often don't work for smaller parcels with fewer plats or smaller projects. MBAKS does not support a blanket one-size fits all IDP code amendment but instead would urge the City to adopt an amendment that offers some flexibility depending on the type of project or parcel size.

95.75: There's been much discussion of whether a tree density credit or tree canopy cover methodology for retention/planting requirements is preferred. MBAKS supports the staff's conclusion that canopy cover is best assessed on a citywide basis, but that tree density credits should be used on a lot-by-lot basis. The need to switch to a more expensive and less detailed, even with advances in technology, canopy survey isn't warranted as stated in the staff notes on page 11 of the Planning Commission Report of the Holmes Point Overlay hearing, that even by simply using the current tree credit requirements as adopted under today's code, it has "contributed to a significant increase (4.4 percent, or 299 acres) in City-wide tree canopy cover between 2002 and 2010."



However, this is a matter of negotiation currently underway with the FHNA, and one MBACKS and the FHNA are continuing to discuss, hoping to bring back a common agreement and messaging to staff, Planning Commission and Council by our December deadline. Please see Section II for additional information.

95.77: MBACKS suggests holding off codifying increasing citywide tree retention/replanting requirements, especially since the very updates being discussed in KCZ Chapter 95 may move the City towards increased canopy cover without further unduly burdensome regulation and cost, particularly on industry.

In addition, the intern reported at the November 8th Planning Commission meeting that the Urban Canopy Assessment, while showing a three (3%) decrease in overall canopy cover, is well within the margin of error.

The discussion of canopy loss also centered solely around the influx of new development within the last couple of years. While the building boom has likely been a contributing factor, no other factors were discussed such as the success or failure of residential replanting programs, tree loss on public land, disease or the rate at which replanting of new trees will provide canopy in three (3), five (5) and ten (10) years at new development project sites.

II. Coordination and Negotiation with Finn Hill Neighborhood Association

MBACKS and the FHNA have begun meeting to try to find alignment, provide direction to the City, and clarity of position around the following issues:

- What trees should be subject to retention? What defines a high retention tree?
- What are a developer's retention obligations?
- What standard should be used to measure tree planting obligations? Tree credits or predicted canopy
- What will be the threshold for tree density? How many credits or what canopy percentage?
- When should replanting be used versus retention?
- If a high retention value tree exists (as redefined) on a parcel or project site, what next?

At the Planning Commission hearing, the Commissioner's expressed their sincere interest in a compromise agreement between MBACKS, the FHNA and the HCC. While MBACKS and the HCC are in basic alignment, the FHNA and MBACKS need additional time to negotiate differences. City staff has granted an extension to December 10th, at which point our two organizations hope to have a workable compromise for the City or a message of where we agree to disagree.



III. Competing Interests: It's All About Balance

MBAKS would like to respectfully remind Council that while this is a very important and necessary update to the City's tree ordinance, it's so much more. This is about balancing

- Canopy and shade versus solar and light
- Providing accessible housing and meeting tree canopy goals
- Property rights versus high retention trees
- One neighborhood's preference for dense tree canopy cover versus another neighborhood's preference for protection of waterfront views
- Retaining native trees or replanting diverse species of trees
- Public property replanting versus private property
- Existing neighborhood replanting deficiencies versus new development replanting obligations

MBAKS would like to thank staff for delaying additional changes to KCZ Chapter 95 earlier in the year as part of the HPO amendments, waiting instead until the intern report was released, initial meetings with stakeholders about Chapter 95 had taken place, and the Urban Canopy Assessment was complete. Although there is still much discussion to be had with staff, the FHNA, Planning Commission and Council, MBAKS feels we are in a more informed position to be having these discussions than we would have been several months ago.

We look forward to continuing to work with the City on this important and complex issue and are here to help update, clarify and simplify the tree protection ordinance.

Thank you for your consideration. If you have any questions, please feel free to contact me at gclark@mbaks.com or (425) 460-8224.

Sincerely,

Gina Clark

Government Affairs, King County Manager
Master Builders Association of King and Snohomish Counties



**MASTER BUILDERS
ASSOCIATION**
of King and Snohomish Counties

cc: Kirkland Planning Commission
Scott Morris, FHNA
Rick White, HCC
Adam Weinstein, Deputy Planning Director
Deb Powers, Urban Forester



From: Mike Smith [<mailto:Mike@merithomesinc.com>]
Sent: Monday, October 15, 2018 12:13 PM
To: Deborah Powers <DPowers@kirklandwa.gov>
Cc: Gina Clark <GClark@mbaks.com>; Adam Weinstein <AWeinstein@kirklandwa.gov>
Subject: RE: Tree Code at Planning Commission

Good day Deb,

Thanks for your considered reply. Please see **in-line, below**:

I've worked in the Puget Sound area in land use for 25 years. Most has been as a planner. I've read, interpreted, and argued code interpretation throughout. I can't overstate the current challenge on trees. I can't review feasibility properly because I can't trust our needs are being considered, and therefore can't project what will and won't be allowed.

Jeremy has said outright that no policy could be written setting minimum owner rights such as 'a zoning-compliant home'. Code interpretation could work, but I know those are disfavored. How far will requirements go? I don't know the answer, but since credits aren't being followed there is no code-based limit. Within current interpretations we could be limited to a 1,500 SF basement house based on nothing but Staff opinion. That is an untenable position for the City, and it borders on impossible for us.

I did a ton of research on the code last year for circulation to the Council. At that time, I'm not sure you were following the issue. I've attached the letter that came out of that effort. The messaging to Planning Commission and Council during the adoption process was that credits were the measure of success. That was the premise, City released a public bulletin January 1, 2006 explaining use of credits and I have multiple examples of how review was done in the first couple years after adoption. I listened to and read minutes of the hearings. Credits were the currency of success.

The central idea I'm trying to get across is that credits aren't being used now in the majority of cases there are no review standards – at all. It's as if we couldn't find out allowable height, setback, or FAR allowances until applying for a building permit. It's not how code is supposed to work and it's not what was intended upon adoption. Planning should understand that, so that we're starting from a clear image of what's happening now before considering where to go.

Thanks again,

Mike

From: Deborah Powers <DPowers@kirklandwa.gov>
Sent: Friday, October 12, 2018 1:41 PM
To: Mike Smith <Mike@merithomesinc.com>
Cc: Gina Clark <GClark@mbaks.com>; Adam Weinstein <AWeinstein@kirklandwa.gov>
Subject: RE: Tree Code at Planning Commission

From: bronson874@aol.com [<mailto:bronson874@aol.com>]

Sent: Wednesday, October 17, 2018 2:36 PM

To: Deborah Powers <DPowers@kirklandwa.gov>

Subject: tree code

Ms. Powers:

I am relieved that the City of Kirkland has finally taken steps to revise the tree code. I have been concerned for several years about the process which allows developers to gradually remove all the trees from a lot, especially in the South Rose Hill and Bridle Trails areas known for their beautiful old trees. Developers have been able to remove some trees at each stage of development, building and landscaping until there are no trees left. This must stop with a plan that includes tree management and preservation from the first stage of planning and development with stiff penalties for failure to follow the rules. Just replacing with planting new small trees is not enough.

I have lived in this neighborhood for more than 50 years and I am shocked at the wanton attitude toward trees. Developers don't care, neither do landscapers, all more interested in making a buck than the environment. A change in the code to preserve trees will come none too soon. We need trees for clean air, peace of mind, privacy and many other attributes.

Please keep me informed as this code change moves forward. I will be glad to testify in favor of trees and stiffer regulations and penalties at a future hearing.

Sincerely,

MB

Melinda Bronsdon
12229 NE 64th St
Kirkland, WA 98033
bronson874@aol.com
425-827-5708



October 30, 2018

Honorable Colleen Cullen, Chair
Kirkland Planning Commission
123 5th Avenue
Kirkland, WA 98033

RE: KZC Chapter 95 Update Tree Protection Ordinance

Dear Chair Cullen and Planning Commissioners:

The Master Builders Association of King and Snohomish Counties (MBAKS) is pleased to provide comment regarding updates to the Tree Protection Ordinance Chapter 95 Kirkland Zoning Code (KZC). With nearly 2,900 members, MBAKS is the largest local homebuilder's association in the United States. Our members are dedicated to working with local jurisdictions to build quality, accessible housing while ensuring they comply with codes that strive to preserve community character and protect the environment.

MBAKS has been meeting with city staff to discuss proposed ordinance updates, including what works in the current code and what should be amended. We appreciate staff's time and effort, consideration of our feedback, the openness of process, and striving to craft an ordinance with greater clarity to make implementation easier for the city and applicant compliance more straightforward.

Although a draft amended ordinance is not yet completed, MBAKS offers these starting point suggestions as we collectively work to improve KZC Chapter 95:

95.25: MBAKS supports clarifying the code to reflect current green building standards to incentivize sustainable site development. MBAKS would like to offer our Built Green team, the largest Built Green program in the United States, as a resource to the city, to provide data, regulatory updates, best practices, and incentive programs to help the city as it updates its code.

95.30.5(3): As discussed during the Holmes Point Overlay Amendment, the MBA opposes amended language requiring all high retention value trees be "required to be retained" rather than "to the maximum extent possible," and if it is also still being considered, we are also opposed if a property owner needs to "exhaust all variations and incentives allowed by code in KZC 95.32 to retain trees "with the only remedy being variance review." MBAKS does not believe there is an issue with high value trees not being retained to the maximum extent possible by its members, and that more



restrictive regulations are unnecessary. In addition, variance review is costly and time consuming, adding to the cost of homes and the shortage of housing.

95.33.4: MBAKS does not support limiting the number of points/tree credits for the use of arborvitae on a site. Each site and landscape plan have unique characteristics and value and should be scored and given points as such. Consider incentives for planting non-arborvitae species or clearly defining what is “excessive use” of arborvitae (percentage of landscape on site?) within the code to give clearer direction to applicants when designing their landscape plans.

95.57: If the city is to specify where preferred appropriate locations for trees are to be retained, and distances from landscape features/hardscapes, we would urge additional discussion with industry, including landscape architects and arborists, before codifying any language. While industry does not want trees planted in inappropriate locations where they become a hazard or reduce normal life expectancy, we also do not want to see the use of footprint and property by homeowners/property owners, or house size or design, unduly limited by the city by overly burdensome regulation.

95.60: MBAKS agrees with the city there is needed clarity for retention and replanting requirements. The city has a good tree credit system. What is at odds is how the system is interpreted and even more so, whether the tree credit is even used by the city. There are competing systems within the city’s own code; one that is telling developers and builders they can simply get credits and comply with the tree retention and replanting requirements if they retain a certain amounts of trees.

Then there’s another system that requires such things as preservation of heritage trees, retention of high value trees, and grove maintenance. These often take precedence over tree credits, leaving discretion, room for interpretation, multiple rounds of review, unplanned cost increases, and project delays. This is often the biggest hurdle nearly every developer and builder must jump with the city and it leaves the most unanswered questions at feasibility.

MBAKS is also researching additional ways to find clarity and predictability and to reduce the need for interpretation and staff discretion in the process. MBAKS believes that continuing to refine the definitions of heritage trees and high values would help. But MBAKS believes that time and additional in-person discussions with stakeholders at the same table to explore together potential options, impacts and how implementation for all sides might work in practice is the best way to resolve what seems to be one of the greatest sticking point moving forward.



95.61: MBAKS supports keeping the payment in-lieu of planting new trees and would support updating the code with industry standards for in-lieu payment methodology.

95.64.10: MBAKS supports preservation of heritage trees where it does not limit the development potential of a property or constitute a constitutional taking of land or property rights. The heritage tree must also be worthy of retention. Trading tree credits, establishing a heritage tree mitigation bank, offering built green incentives, and/or simplifying the heritage tree retention definition so it's clearer when and why a tree should be preserved are examples of how to increase the preservation of heritage trees.

95.65: The industry does not support including landscape architects in the design review process to help assure greater tree canopy cover goals are achieved. This is not the role of a landscape architect. There are no standards in their industry to support this and it significantly increases costs for development review.

95.68: While we understand the environmental, sustainability, biological, and climate importance and impacts of tree species diversity, further inclusion in the broader discussion and goals of the city if required on private land are necessary if the city plans to impose code requirements on developers, builders and private property owners.

95.71 The Built Green team at MBAKS is a valuable resource to help the city with data, best practices and regulations to help competing interests of light and shade often found when tree canopy and solar compete. MBAKS is pleased to offer the city assistance with developing rules and regulations to balance sustainable energy needs and goals.

95.73: MBAKS members represent a wide spectrum of the development industry. While integrated development plans (IDP) work for large developers and builders who often clear large subdivisions with many plats, they often don't work for smaller parcels with fewer plats or smaller projects. MBAKS does not support a blanket one-size fits all IDP code amendment but instead would urge the city to adopt an amendment that offers some flexibility depending on the type of project or parcel size.

95.75: There's been much discussion of whether a tree density credit or tree canopy cover methodology for retention/planting requirements is preferred. MBAKS supports the staff's conclusion that canopy cover is best assessed on a citywide basis, but that tree density credits should be used on a lot-by-lot basis. The need to switch to a more expensive and less detailed, even with advances in technology, canopy survey isn't warranted as stated in the staff notes on page 11 of the Planning Commission Report



of the Holmes Point Overlay hearing, that even by simply using the current tree credit requirements as adopted under today's code, it has "contributed to a significant increase (4.4 percent, or 299 acres) in City-wide tree canopy cover between 2002 and 2010."

95.77: MBAKS suggests holding off codifying increasing citywide tree retention/replanting requirements for several reasons, especially since the very updates being discussed in KCZ Chapter 95 may move the city towards increased canopy cover without further unduly burdensome regulation and cost, particularly on industry.

In addition, a full Urban Canopy Assessment is currently underway that will assess citywide canopy cover as well as canopy cover in neighborhoods, parks and single family residential, the data from which will be used to gauge the effectiveness of tree codes and compare to previous tree canopy assessments (completed in 2010). The full report and data will be available by the end of the year.

MBAKS would like to thank staff for holding off from making additional changes to KCZ Chapter 95 earlier in the year as part of the HPO amendments, waiting instead until the HPO amendment process was complete, the intern report was released, initial meetings with stakeholders about Chapter 95 had taken place, and the Urban Canopy Assessment was almost complete. Although there is still much dialogue to be had with staff, Planning Commission and Council, MBAKS feels we are in a more informed position to be having these discussions than we would have been three or four months ago.

We look forward to continuing to work with the city on this important and complex issue, and are here to help as industry update, clarify and simplify the tree protection ordinance.

Thank you for your consideration. If you have any questions, please feel free to contact me at gclark@mbaks.com or (425) 460-8224.

Sincerely,



Gina Clark
Government Affairs, King County Manager
Master Builders Association of King and Snohomish Counties

cc: Amy Walen, Mayor
Adam Weinstein, Deputy Planning Director
Deb Powers, Urban Forester

6. Public Comments

Question: if you were in charge of trees in Kirkland, what kind of rules would you make?

1. No hurting [trees] unless [they're] weak and going to [be removed] anyway
2. Kirkland's assets are its tall, mature trees – keep our neighborhoods green!
3. Grow More [trees]!
4. More compost bins available 😊
5. I would every time you cut down 1 tree you have to plant 2 native trees
6. I wouldn't cut any of them down!
7. [Plant] as many trees as possible
8. Increase tree canopy coverage goal, [and] maintain, don't cut down mature trees, especially for construction of new mansions. Study urban heat island effect, health data & localized cooling. Lift up sidewalks & trim roots that have heaved the pavement instead of removing and replacing trees.
9. Balance growth/tree retention, [better coordinate] different [City] departments' interests with trees
10. [There should be more] equity between homeowners' [tree removal] allowances vs. developers [tree retention requirements]
11. We need trees for privacy and sound/dust barrier
12. More trees [for their] benefits
13. [Unless] potentially hazardous, save for squirrel habitat
14. Preserve the large old growth, replace with greater than what is taken away (trees)
15. Be more diligent with street/park tree maintenance, especially street/sidewalk clearance
16. I'm all for preservation of trees, but please be open minded that in certain situations, pruning and/or cutting is necessary
17. [Allow] payment in lieu of replacement trees on private property [so that replacements can go somewhere void of trees] like Spinney Park
18. Trees/veg cleared from sidewalk
19. Cut down trees & sell 'em for City \$ funds
20. Allow in critical areas [tree] prun[ing] for light
21. If a tree blocks my view, I want it cut down
22. Tree code enforcement [should be] part of the tree code update. [Require] stop work order for people who break code. Suspend or revoke their business license. Fix loopholes
23. More trees and understory plants everywhere. Preserve large trees
24. Clarify the process by which you can have a tree declared unhealthy or unsafe, and therefore you can cut it down without affecting your annual limit

Stakeholder Question: What are your concerns with the current tree code?

25. Tree credit [requirement is] inconsistent with goals for canopy coverage. It incentivizes native forest conversion into a non-native forest. Only way it works is with non-native deciduous trees.
26. Credits/rules don't align with tree growth/biology. Should be using PNW data and survival rate
27. Sidewalk planting strip longevity messing up sidewalk [root growth of street trees in sidewalk strips leads to broken pavement]
28. Unfair processes/double standard between residents and developers
29. Statistics on canopy cover [should] only come from [what's within] City jurisdiction or boundary lines
30. [That] developers [don't] know their role in city-wide canopy goals
31. Developing [occurring] despite consequences of fines, etc. Up front work [occurs such as tree retention plans] but [there's] no follow-through with code enforcement.
32. No protection for adjacent property owners' trees
33. Need better signage for tree protection
34. [Concerned with] preserving trees with trail systems. Walkability and root zone [conflict]
35. [Code is] onerous and expensive for residents [and small contractors] specifically re: [tree protection] fencing. Doesn't make sense. [Even with fencing, there are] impacts [to] tree/plant health

36. [Code] too specific, doesn't achieve general goals
37. There is a lack of:
 - Developer awareness on tree canopy maximization
 - Tree categories (significant, heritage, etc.) and incentives to save them
 - Maintenance bond
 - Enforcement and fines correlated to tree size
 - Understanding of [protected tree] maintenance responsibility of developer/owner
 - IDP [requirement on a citywide basis]
 - Financial support from City for resident tree preservation [City-provided incentive such as a tax break or permit/zoning regulation relaxation for retaining mature trees; this would be the flip side of usual policy that prohibits or penalizes tree removals]
38. Tree preservation isn't coordinated between various agencies/utilities
39. Where in the process [is] the tree standard created and applied [questions the basis for the City's current credits requirement and how it's applied to retain trees or plant new trees]
40. Interpretation of code language [too lax] ("if feasible" etc)
41. Notice of development doesn't have tree plan, [is] not online.
42. More equality with 2-per 12 months tree removal, specifically regarding larger properties
43. [Code is] inflexible for atypical lot dimensions
44. [Code is] unpredictable:
 - [It's an] outlier from other building codes
 - Updates [are unpredictable]
 - Interpretation/implementation [is not consistent] between different staff and over time
 - [In how tree] credits [are] practice[d]
 - [There's] no objective measure
45. [Needs] clearer definitions and environmental connection [to] "significant" and "exceptional"
46. [Too] subjective standards, especially staff consistency [over time]/training [for new staff]
47. Lack of "grove" definition
48. [Code] minimum[s are] subjective, [result in] additional requirements as opposed to other building code minimums. [Results in unnecessary] one-sided negotiation [that favors staff].
49. Process timing too swift, not enough time for review
50. [In regards to] "canopy" [cover] vs. [trunk diameter at] breast height:
 - DBH is easier to measure
 - Canopy can be manipulated
51. [Concerned with] implementation of [increased] tree replacement [requirements] and [having] arborist on site during [construction]

Stakeholder - complete this statement: a "successful" tree code in Kirkland is...

52. One that helps homeowners plant, replace, manage trees depending on where they are [located]
53. One that provides construction solutions to owners when they have a tree [retention] problem
54. One that consistently meets with 40% canopy goal for City boundaries only
55. One that incentivizes native tree usage via tree credit [requirements]
56. Integrated with rest of development code
57. Accommodating of different neighborhoods' character
58. Integral, connected to policy goal of healthy, sustainable urban forest/tree canopy goals
59. Correlated between lot size and tree code policy with balance between simple and cost effective
60. Objective
61. Accommodating of the original intention of a plat layout
62. Respectful of property rights
63. Takes into account other advancements in environmental tech [such as] water and solar
64. Predictable and consistent
65. Flexible [with a] transparent process to [address] problematic anomalies of code [that are] not really working
66. Equitable
67. Balanced between predictable and flexible

68. Accommodating of a fee program in lieu of [tree] replanting [on site]
69. Accommodating of tree replanting [vs. tree retention]
70. Consistent [with] meaning/definitions for decision-making rationale and construction methods (root zones)
71. Not requiring an on-site arborist

Stakeholder - complete this statement: a “successful” tree code in Kirkland has...

72. Contractors sign [an] affidavit for tree responsibilities over time [after development]
73. Precedence over other development processes
74. Ongoing financial responsibility through HOA or similar [legal] vehicle for maintenance of PNA/required [tree] replanting or a bond for x years [after development]
75. Mandatory education for developers, including [required trees] follow up
76. Clear [tree protection] plans included on [public] notices [and job sites] with [code] enforcement [phone] #
77. Economic incentives for public to do the right thing
78. Acknowledgment of “downstream” consequences of [tree] removal, [tree] removals included in stormwater assessment
79. A proactive city-wide education campaign and partnership with Lake Washington Technical College to increase availability of native plants and shrubs and drought-tolerant varieties to homeowners, city parks and public works departments
80. Clear online resource to identify tree problem and Next Steps [for permits]
81. Maintenance requirements for City-owned property and conservation easements
82. Different tree classifications [for] species, cultural [significance] and heritage [trees], etc.
83. A clear process flowchart similar to LID process, especially for “flexible” situations [such as] difficult lots
84. Third party appeals/arbitration process with option for Hearing Examiner
85. An IDP option [as opposed to requiring it for all shortplat/subdivisions citywide]
86. No IDP requirement [would rather it be an option]
87. “Black and white” clear definitions, standards
88. A better definition of “grove”
 - Science-based qualifications
 - [Has a] legal protection [mechanism that’s] not [an] easement
 - When [is it] applied?

From: Roger Stone [kmsmattdan@gmail.com]
Sent: Monday, February 05, 2018 9:46 AM
To: Toby Nixon
Subject: Tree ordinance--Here's my take

I've lived in my North Kirkland home for 34 years. We planted some firs and a willow for privacy and water uptake. They are now tall enough that if they fell, they'd hit neighbors East and North of me. I decided to re-landscape my lot for privacy, drought tolerance, lower maintenance, and to remove hassles and liabilities. I hired a tree service and a landscape design company. I was advised that Kirkland had a tree ordinance allowing me to only take down 2 significant trees per 12-month period. Based on the number of trees I wanted to replace, that would have been a 4-year period.

But if I get an arborist to say a tree should come down (a \$150 per tree report fee) and a \$400 fee to the City to even consider it, I could take down 3 more that the arborist could make a case for taking down. That would still leave me 2 years from replacing the trees and undertaking my landscape plan. My plan was to grind the stumps, and dig them out, then replant slower growing privacy-enhancing trees

Now, I don't live near the water. My lot is not an iconic view lot. My trees are not shading a lovely lane. My trees are just Douglas firs that were planted too close together, got too tall, and are dropping large limbs in windstorms. They are over 100 feet tall.

I understand oxygen production. Kirkland's policy means there will be 2 less trees every year over 4 years, when I would replant all new trees this spring if permitted. I understand wanting a pretty neighborhood. Kirkland's plan puts my landscape effort back 4 years. I understand privacy. Kirkland's plan puts privacy for myself and 3 neighbors back 4 years.

There are other issues re-landscaping my lot and costs involved. Paying an arborist \$150 per tree to say the trees have problems adds to my costs and does not move re-landscaping forward at all. Paying the City to "consider" my application is an insult. Does the City own my trees? No, it does not. Would it assume liability if the trees fall on a neighbor? I doubt it. Will it offer any relief or credit for the fee? No, it will not. Does the City gain by me waiting to replant? No, it does not. Does the City offer a replanting credit to make me whole for their fees? No, it does not. If it is truly interested in the tree cover for the City, one would think re-planting would be encouraged.

So, does the City offer a variance for people wishing to replant? No, it does not. Does it offer an appeal process? No, it does not. The City has variances and appeals for lots of other processes, but not this? Why is that? Is not this taking of my property rights, my trees, and my right to landscape my lot? Yes, it is.

Thanks for your time and consideration

Roger Stone

From: Karen Story [<mailto:karen@nwnative.us>]
Sent: Monday, July 30, 2018 1:01 PM
To: City Council
Cc: Deborah Powers
Subject: I support stricter enforcement of tree regulations

Dear Council,

I support the [stricter tree regulations](#) proposed by staff and strongly supported by the Planning Commission, including higher fines for unauthorized removal and for repeat offenders.

As stated in the [Urban Forest Strategic Management Plan](#) adopted by Council, trees improve air and water quality and contribute to human health, safety, community character, and economic stability.

Now, it is cheaper for some developers to pay the fines than to protect trees.

Trees are disappearing at an alarming rate as bigger homes are being built.

I urge you to act quickly to protect our trees.

Thanks,
Karen Story

From: David Archibald [<mailto:dparchibald@hotmail.com>]
Sent: Wednesday, September 05, 2018 6:21 PM
To: Deborah Powers <DPowers@kirklandwa.gov>
Subject: TREES IN KIRKLAND

Hello,

I understand from the Planning Department that you are consulting with the City of Kirkland on ordinances regarding trees. I live in the West of Market area and hope you will take my input into consideration.

Most lots in this area, as well as the whole of Kirkland, are small - less than 1/2 acre. Yet the City condones large hedges on property lines. I have a Leyland Cypress hedges on one side which I am sure you are aware grows 2+ feet per year. This hedge is at least 13 feet in height after pruning last year. My neighbor does not feel it their responsibility even though it is on their property because there are no ordinances regarding height and/or shrubs infringing on someone else's property. It blocks the sun on a small lot and penetrates into my yard. I prune as much as I can and haul out the debris but it is so high now that I must hire someone at my own expense to do this work. This is an outrage. Leyland Cypress is not suitable for small lots. Many other trees are in this same category ie Birch, Cedar, etc. The height of hedges at property lines between lots should not be greater than 7 feet. On the other side of me, my neighbor has fruit trees: a fig 2 1/2 stories high, obviously overgrown, unpruned apple trees covered in caterpillar webs and sick overgrown plum trees. The fruit falls in our yard. They attract brown squirrels and worse, rats. I paid \$3,000.00 to prune trees on both sides. I feel this inequitable.

I ask you to recommend to the City of Kirkland that the homeowner of the property in which the trunks are located are responsible to contain and care for them not the adjacent property owner. Rats are a problem. Homeowners who grow fruit trees should be forced to maintain them and if not and a complaint is made, the owner of these trees should remove them.

Lots under 1/2 acre should not have inappropriate large trees. It had serious consequences to adjacent lots and causes animosity.

I would appreciate your voicing these concerns and affecting equitable solutions. I am sure I am not alone.

Thank you,
Linda Archibald

From: Pat Jovag [<mailto:pjovag1@earthlink.net>]

From: Pat Jovag [<mailto:pjovag1@earthlink.net>]
Sent: Thursday, September 13, 2018 9:45 AM
To: Deborah Powers <DPowers@kirklandwa.gov>
Subject: Need information on tree removal

Hi,

I live in Bridle Trails Neighborhood and have noted that developers just clear cut property be it for a short plot or a large development. Individual property owners will move into an existing home and remove trees. I would like to know what the existing regulations are for these scenarios. And also what the city has in mind when the upcoming review of Kirkland's policy? When will this review be scheduled? Closed or open meeting? I am quite concerned about the escalation of tree removal since the BT Neighborhood is a forested area.

Sent from my iPhone

From: Pat Wilburn [mailto:patrick_wilburn@hotmail.com]
Sent: Monday, September 24, 2018 1:12 PM
To: Deborah Powers <DPowers@kirklandwa.gov>
Subject: Chapter 95 question

Hi Deb -

I looked through the potential changes to Chapter 95 for Trees, and had a question. There appears to be a desire to prevent girdling as a pre-development practice. I wanted to confirm that the City still supports girdling as an appropriate technique for wildlife snags. The City has in the past guided us (perhaps required us) to girdle trees as part of converting that tree to a wildlife snag, to ensure the wildlife snag does in fact remain a snag.

Please confirm. I'm a bit worried that the revised language on girdling will not take into account the differences between (a) girdling related to development, which appears to be what the City is worried about and (b) girdling done as part of work to convert trees to wildlife snags.

Thanks,
Pat

From: Susan Vossler [<mailto:vosslers66@gmail.com>]
Sent: Tuesday, September 25, 2018 12:19 AM
To: Deborah Powers <DPowers@kirklandwa.gov>
Subject: tree ordinance comments

Hello!

I arrived late to the meeting at City Hall on Tues, 9-18.

I didn't comment as I was just absorbing what was being said.

With some thought, I'd like to provide some comment.

I believe a good tree ordinance should be realistically enforceable. I believe cutting trees down can be enforced. Replanting trees can not.

I also see a city tree ordinance aligning with the city's commitment to K4C. Retaining a tree canopy is part of a commitment to mitigating climate change. Citizens like me will be holding our city accountable to this commitment.

<https://www.kingcounty.gov/services/environment/climate/strategies/k4c.aspx>

Thank you,
Susan Vossler

Alice L. Blanchard
11531 Holmes Point Drive NE
Kirkland, WA 98034
360-221-7040 - Office
ablanchardlaw@whidbey.com

September 27, 2018

To: Kirkland Planning Commission, planningcommissioners@kirklandwa.gov

Janice Coogan, Senior Planner,
Kirkland Planning and Building Department; Coogan <jcoogan@kirklandwa.gov>

Deb Powers, Urban Forester; >> Deborah Powers <dpowers@kirklandwa.gov>

Communication Being Sent Via e-mail:

Regarding: Comments on Draft Code Amendments to KZC Chapter 95

Dear Commissioners, Ms. Coogan, and Ms. Powers:

I am a homeowner who lives at 11531 Holmes Point Drive NE, Kirkland 98034. I have testified previously before the Planning Commission on matters involving proposed amendments to the Holmes Point Overlay (KZC 70) that were recently discussed in the spring and summer of 2018.

I have the following comments on the memoranda dated September 21, 2018 from Deb Powers.

1. I am strongly in favor of **Item #53, "Revise the tree removal allowance so its equitable across varying lot sizes."** This would allow more tree removal on larger lots, depending on lot size. The Commission recommended approval of code amendments to KZC 70 and 95 prior to this issue's presentation before the Kirkland City Council on 6/19/2018. In the overlay, this would be addressed by amending KZC 70.15.2. The specific sections dealing with tree removal on larger lots in non-PNA portions of an owner's property are:

d. Up to two trees may be removed within a five year period on properties smaller than ½ acre (21,780 sq. ft.) with a 1:1 replacement tree requirement; or

e. Up to four trees may be removed within a five year period on properties larger than ½ acre (21,780 sq. ft.) with a 1:1 replacement tree requirement.

f. For removal of more than four trees on properties larger than one acre within a five year period that are not exempt under KZC 95.20, a Forest Management Plan shall be submitted per Chapter 95.23 subsection 5.e KZC.

Whether KZC 95 is amended in association with KZC 70, or on its own, it should also address this issue.

2. Item #64 "Add Heritage/Landmark Tree Definition." I agree that the code needs to be simplified because the current definitions for high, low and moderate tree retention are confusing. I agree with the City Attorney's Office that if a definition is established for Heritage/Landmark trees, that definition should not limit the development potential of property in a way which invites due process constitutional taking litigation. I support the city's suggestion for tree preservation on private property, through Voluntary Tree Conservation Easements.

3. Item #70 "Should High Retention Value Trees Be Protected Only "To The Maximum Extent Possible" Or Should The Code Be Revised To Require That They "Shall Be" Retained." I support the language to the maximum extent possible" rather than requiring retention.

4. Item #71 "Address Seemingly Competing Interests Of Tree Canopy Goals And Alternative Energy Sources." Tree code provisions should definitely be amended to take into account that many homeowners are now wanting to use solar energy. Tree code requirements should not be so oppressive that they prevent a homeowner from installing solar on an existing structure or incorporating solar into new construction on his or her property.

5. Item #75 "Use A Canopy Cover-Based Methodology For Retention/Planting Requirements Instead Of A Point System (Tree Density Credit) That Is Based On Tree Size." As a homeowner who has calculated the tree credits on my property using the tree credit system, I'm in favor of retaining this system as the methodology use by Kirkland. It is a system that can be used and understood by the homeowner easily.

6. Item #77 "Increase Tree Retention/Tree Planting Requirements City-Wide." The contrast between the ability of all other Kirkland property owners to remove two trees every twelve months without even applying for a permit, with the restrictions that are currently still in effect in the Holmes Point Overlay, because KZC 70 has not yet been amended, is disturbing. The changes to equalize the burden, along with HPO code revisions should be coordinated.

Thank you for taking the time to consider my comments. I also appreciate the tremendous amount of time and effort that has been put into this process by Deb Powers, Urban Forester.

Sincerely,



Alice L. Blanchard

From: goodwin [<mailto:goodwin.hp@gmail.com>]

Sent: Thursday, September 27, 2018 9:49 AM

To: Planning Commissioners <PlanningCommissioners@kirklandwa.gov>

Cc: City Council <citycouncil@kirklandwa.gov>; Eric Shields <EShields@kirklandwa.gov>; Adam Weinstein <AWeinstein@kirklandwa.gov>; Deborah Powers <DPowers@kirklandwa.gov>; Scott Morris <Scott.Morris@trilogy-international.com>

Subject: Code Amendments KZC95 / Tree Management and Required Landscaping

Dear Commissioners:

In your consideration of revisions to subject code I request you guide staff to include Kirkland resolution R4986 'Urban Forestry Strategic Management Plan' (attached) into the kzc 95 amendment.

To reach our city canopy goals I feel this resolution must be codified and then made part of 95.

If the city has gained any tree canopy over time I believe it's due to annexation and not by any type of existing tree management code.

Including the principles of R4986 in kzc 95 revision will create a sustainable tree canopy management code that will allow us to reach our city wide canopy goals. Without this type of revision we will continue to get developments in the city with tree canopies similar to attached Kirkland housing track images.

Thank you,

Ken Goodwin
11834 Holmes Point Drive
Kirkland Wa 98034

Deborah Powers

From: shlopey@gmail.com
Sent: Monday, September 30, 2019 8:51 PM
To: Deborah Powers
Subject: Tree Ordinance Comments

Categories: Project Category

Deb,

I wanted to submit my comments on favor of stricter rules on clearcutting trees. There have been several developments in my immediate neighborhood who had fences around protected trees and who cut the trees regardless as the fine is less expensive than the sacrifice of developable land. In addition, the clear cutting has occurred in a woodpecker ha Italy which is a protected class. This abuse by developers needs to stop and the city can provide protections by enforcing stricter ramifications to developers who abuse the policy by withholding permits etc.

Thank you
Leah Shlyakhov
Kirkland Resident, Finn Hill

Sent from my iPhone

Deborah Powers

From: betsy Lewis <betsylewis1017@gmail.com>
Sent: Monday, September 30, 2019 2:38 PM
To: Deborah Powers
Subject: Proposed Tree Code Updates

Dear Ms. Powers,

Please accept my comments on above topic and forward them to the Plannig Commission for consideration I will be out of the country on October 6 and 10, therefore unable to avail myself of the opportunity to ask questions in person.

My neighborhood, South Rose Hill-Bridle Trails, is experiencing unprecedented short-platting. It seems likely that density will only increase due to recent changes in the comprehensive code encouraging ADU's and other structures.

I am very concerned about the retention of existing mature trees. These trees give our neighborhood its character, offset carbon emissions, and provide shade and cooling as our climate warms.

The 9/20/2019 [New York Times](#) article "An Ecological 'Crisis' as 2.9 Billion Birds Vanish" shocked me and made apparent the urgency of retaining tree habitats for many bird species. I am not very knowledgeable about birds, but I very do enjoy hosting birds as residents and visitors to my pesticide-free yard. Commonn species I have seen include raptors including bald eagles, red-tailed hawks, and owls; as well as Northern Flickers (my field guide tells me their numbers are declining, as well as Anna's Hummingbirds, Black-Capped Chickadees, Varied Thrushes, and Spotted Towhees.

I am interested to read that the draft revision of Kirkland's Tree Code provides some protections for "heritage trees". I would like to know what constitutes a 'heritage tree' and what specific protections such a designation affords.

Last, I hope that more attention will be paid to monitoring the health of replacement trees in parking strips as well as on re-developed lots. Many times I observe newly-planted trees die for lack of water.

Thank you for inviting pubic comment on these revisions.

Sincerely,

Betsy Lewis
12014 N.E. 65th Street
Kirkland WA 98033
425-241-7564

Deborah Powers

Subject: FW: Tree Code Amendments - File No. CAM18-00408

From: Rebecca Penn <penn@livengoodlaw.com>
Sent: Tuesday, September 03, 2019 4:46 PM
To: Deborah Powers <DPowers@kirklandwa.gov>
Subject: Tree Code Amendments - File No. CAM18-00408

Dear Ms. Powers,

Please accept this as my public comment to Kirkland's Tree Code Amendment. I am in agreement with the City's steps to increase protections for tree retention through the proposed ordinance. I am a resident of a single family home in Holmes Point. I have observed and am very concerned about developers indiscriminately clear cutting lots of all trees and simply paying the fines (as they are so low) and the added monetary value to the lot views is apparently so high. For instance, there is a lot behind my house on a steep hill. The trees are keeping that hill together. Developers cut the trees down, decreasing the slopes stability. My concerns are echoed by residents (some of whom are my friends and acquaintances) of Finn Hill, who have seen a dramatic clear cutting of lots around them – again, the developers would rather just pay any assessed fine because the value of the lot is increased by removing the trees. If the City does not check the developers, no one will.

Finally, trees provide immeasurable benefit to our city and the earth. There is the concern of global warming, animal habitat and air quality. We should each do our part to retain (and plant) as many trees as we can for ourselves and our future generations.

Respectfully submitted,

<image001.jpg>

Rebecca L. Penn, Attorney
Tel: 425.822.9281 Ext. 7304
Fax: 425.828.0908
[Bio](#) | [Address](#) | [Website](#)
penn@livengoodlaw.com

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Deborah Powers

From:
Sent: Friday, August 02, 2019 1:29 PM
To: Deborah Powers
Cc: David Barnes
Subject: RE: TREE PICTURES, LINKS REQUEST-LINK->PIC#1-BEFORE-Tree Aerial View-DGR-9 plot short plat-

Hi Deborah,

Hi Again!

2 additional anonymous asks to add to your city wide tree removal code review and citizen outreach program List below:

1. New Development-Revise the tree removal law from 5 years to 10 years. 5 years goes by too fast and we need to preserve the post development trees. In all likelihood, the developer removed other substantial trees to develop same said property. This will not impact our hot housing market.
2. COMPLETELY strike the Arborvitae tree type as a replacement option for any tree removed on a property for development. As you know, this cypress family tree used primarily for landscaping and hedges. Throughout many of the short plats and new developments, throughout the city, 10-30%TTL of the arborvitae "walls" have died. No longevity, sturdiness.. vs. real trees.

Thank you!

Deborah Powers

From: Jeremy McMahan
Sent: Wednesday, October 23, 2019 11:49 AM
To: Deborah Powers
Subject: FW: comment about public hearing about trees

From: David Schwartz <david_vcp@hotmail.com>
Sent: Wednesday, October 23, 2019 11:37 AM
To: Houghton Council <houghtoncouncil@kirklandwa.gov>
Subject: comment about public hearing about trees

If you watch the study session of the October 1 city council meeting, with the planning commission and city planning staff, it will be clear that the purpose of the proposed changes to the Kirkland tree code is to make it easier for builders and that the result will be more trees cut down in Kirkland.

https://kirkland.granicus.com/player/clip/4126?view_id=43

The study session is one hour and if you have not yet watched it, I think it will be a good preparation for your public hearing.

I urge you to reject the proposed changes to the Kirkland tree code. Saving trees is more important than making life easier for builders.

-- David

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Deborah Powers

From: Doug Rough <dougrough@aol.com>
Sent: Tuesday, October 22, 2019 1:16 PM
To: Deborah Powers
Subject: Re: Notice of Hearing: Kirkland Zoning Code Chapter 95, Tree Management and Required Landscaping - CAM18-00408.

It is my opinion that this is the very definition of over-regulation. Regulation that may sound good, but the indirect effect is raising costs for just about everyone, and especially making new houses more expensive. The consequences of indirect raised costs are not obvious, so folks often do not understand. I wanted the Juanita Neighborhoods Association to get a say in this. I doubt very much the JNA will be able to make the hearing, and unless the costs are explained properly, few if any will realize how much this will cost.

| Draft_Current Code Compare Mat...docx (25 KB)

--Doug Rough 425-821-5529 -- RetreatsAndReunions.com
cell 425-443-8423

-

Deborah Powers

From: Jeremy McMahan
Sent: Friday, October 18, 2019 9:55 AM
To: Deborah Powers
Subject: Comments on Draft Code Amendments, Kirkland Zoning Code Chapter 95

From: Don Samdahl <don@filmjabber.com>
Sent: Friday, October 18, 2019 9:52 AM
To: Planning Commissioners <planningcommissioners@kirklandwa.gov>
Subject: Comments on Draft Code Amendments, Kirkland Zoning Code Chapter 95

Please provide this input to the Public Hearing on November 5, 2019 public hearing.

Thank you for the opportunity to provide comments on the Draft Code Amendments, Kirkland Zoning Code Chapter 95. I have followed the history of this code over the past several years, and I applaud the city for making the efforts to preserve trees. Unfortunately, the current code has not been successful in managing tree retention, especially as part of new developments. Typically there are only a handful of trees retained on the perimeter of a plat, with the rest of the plat clear-cut for development.

The proposed code revisions are an improvement, especially related to the removal of the phased review process, as I discuss below.

However, the code remains severely hampered when it comes to retaining trees during development activities. The following statement in Section 95.30.4 sums up the city's position that development activities always take precedent over tree retention:

"The City does not require tree retention efforts that would reduce maximum allowed density or number of lots, maximum allowed Floor Area Ratio (FAR) or Lot Coverage, or that preclude required access and utility connections." Regardless of the requirements of developers to prepare a Tree Retention Plan, the fact remains that allowing maximum density, FAR, or Lot Coverage will mean that very few trees are retained on a lot. In this regard, I certainly support the new provisions for retaining landmark trees within the property, but in most cases this will result in one or two token trees retained, with no requirements for ongoing tree maintenance. So I remain skeptical about the code implementation moving forward.

Despite my concerns, I do want to register my support for the removal of the Phased Review process in the current code, and I am pleased that the proposed code revisions include this removal. This provision has been, in my opinion, a major loophole in the code rendering it totally ineffective for preserving trees. In my neighborhood, South Rose Hill, I have been cataloguing several plats where this provision has allowed the developer to cut virtually all of the trees on a lot in sequence. This is what happens- take a typical change from a single family lot to 2 or 3 units. The first building permit comes in; a house is built with nice signs and fences protecting the remaining trees. Then the next building permit comes in, and that house cuts down most of the previously retained trees, and so forth. . Removal of the phased review process would allow for a more predictable and consistent process for tree plan review.

Donald Samdahl
 425-827-5372

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Deborah Powers

From: Jeremy McMahan
Sent: Tuesday, March 26, 2019 1:37 PM
To: Deborah Powers
Subject: FW: Street lights, tree policy, other

From: Jennifer Loy <jennifer_loy@hotmail.com>
Sent: Tuesday, March 26, 2019 11:09 AM
To: Houghton Council <houghtoncouncil@kirklandwa.gov>
Subject: Street lights, tree policy, other

Hello Houghton Community Council Members,

Thank you very much for the great work that you do to preserve the integrity and character of our South Kirkland community and advocate for responsible versus run-away growth in the context of our limited infrastructure.

I was recently made aware of discussion topics that are coming before you in the areas of trees and street lights. As such, I'd like to share with you my point of view and experiences in these areas.

Trees: I understand the current policy and have abided by it. I've both taken down trees and planted trees on my property.

What I do see is irresponsible tree planting both by home owners and the city. **Location matters.**

What do I mean by that? Well, for "new construction", I'm assuming there is some tree planting requirement. I see large-growth evergreen trees being planted very near sidewalks. It doesn't take very long for 10-15 years to go by and you've buckled the sidewalk which becomes a hazard to pedestrians, or the branches are growing into the sidewalk that need to be trimmed constantly and rarely are at the homeowners expense.

For all properties, large growth trees are planted too near utility wires. The cost of maintenance to the city or home owners and the on-going branches and trees falling into power lines when storms hit has to be meaningful let alone the inconvenience to home owners when the power is out. While I don't suggest moving old trees, new trees can be more thoughtfully placed looking 20-30 years down the road.

Carillon Woods Park. My children are getting older now but, I took issue with how forested the actual play area is. Why? Well, not only does it stay damp and wet more, it is a safety hazard. If you can't see what is going on in the park, bad things could/do occur. There should be clear sight lines between the street, the swing area and the main play structure so that a parent can monitor both areas at the same time.

The city has irresponsibly planted at least 5 large growth cedar (fast growing) and one other large growth evergreen between the street and the play structure. This will further hide the play area and cause it to be darker and less safe. Parents want play areas to be open, and visible for safety! Closing it in and making it darker, makes families less likely to use the park. The trees should have been planted in the already forested areas which there is definitely room. Bad decisions on tree planting by the city.

Protecting streams-watershed. My first home was on the corner of 106th and 60th. There is a little stream there and the city was going to plant native species plants to protect the stream better. On the day of the planting which I offered to help out with, a cedar tree or two was part of the plan. I objected to two cedar trees being planted in the right of way of my very modest and very valued sightline to the lake. The city forest person acquiesced. At the time she was trying to convince me that it would take YEARS for the trees to make any difference. Fortunately, I am aware of how cedar trees

grow and that she was trying to pull-a-fast-one on me for no good reason. Today, the stream is protected. It looks horrible but, it is protected without planting additional trees in a view corridor.

Street trees: These trees should be required to be of small to modest size when at maturity when selecting a variety so that you avoid buckling sidewalks and the cost of ongoing maintenance to the home owners.

The city should need permission from home owners if they intend to plan large growth trees in a view corridor. Planting a tree in front of someone's view without permission is a "dirt-ball move." There are many, many areas that new trees can be planted that no one would blink an eye at. Location matters.

52nd. I was quite shocked at how many mature, old growth trees were quickly whacked away on 52nd during the construction on that street. Why so easy to take down huge trees on a big slope for a city project but, large road blocks to remove trees for home owners?

Street Lights:

It's my understanding that new street lights are being put along LW Boulevard in the Houghton/Lakeview area. Home, apartment and condominium dwellers are right to be concerned. Someone should be getting back to them.

The new lights I've seen are not soft. They are more akin to a fluorescent/stadium light. This is not pleasant. Street lights so bright you need to close your shades or that impede a beautiful sunset are not useful or welcome.

Whatever is done, I hope that soft lights can be used and that they mainly are active in the winter time.

I think prioritizing things like garbage clean up, crosswalk safety, repairing and resurfacing roads on a regular basis, removing graffiti, enforcing civility laws and keeping vagrants out of Kirkland are more important than installing lights no one is asking for.

I had a street light installed. Yes, through neighborhood funds, I had a street light installed next to...Carillon Woods park to improve safety in the area. Before the project could be approved, I had to get approval from the neighbors to make sure the light would not bother them. Why is the same logic not applied to the boulevard? I also had street bumps put in to reduce the convenience for cut through traffic on 106th from 108th and had to again have a majority of the immediate neighbors agree.

Thank you for reading about my experiences, observations and my opinions as a fellow neighbor and HCC member as you contemplate these issues and impact policy moving forward.

Kind Regards,
Jennifer Loy
Houghton
Kirkland resident since 1993

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Deborah Powers

From: Jeremy McMahan
Sent: Friday, March 22, 2019 8:00 AM
To: Deborah Powers
Subject: FW: Tree Code update comments

From: Debbie and Jerry <debbieandjerry@yahoo.com>
Sent: Thursday, March 21, 2019 5:40 PM
To: Planning Commissioners <PlanningCommissioners@kirklandwa.gov>
Subject: Tree Code update comments

Hello,

I read that you are considering a "Landmark" tree designation for trees greater than 2 feet in diameter. I think these heritage trees deserve extra protection and strongly support distinguishing them from other trees, with extra oversight on their potential removal. Another possible way to determine a "Landmark" tree is if it was here when Kirkland incorporated.

Kirkland is an urban area. However, it's situated within an ecosystem that supports all sorts of other living creatures. Trees provide environmental services such as surface cooling, pollution removal and habitat. While Kirkland becomes more dense, I'd say the value of our trees becomes ever greater as their overall numbers decline. Developers will still make money, even with a stronger tree code. I believe that preserving trees means tomorrow's developers will have a desirable community within which to build their projects. Otherwise we're letting today's developers reap all the profits from past preservation.

Regards,
Debbie Ohman
11404 NE 103rd Place

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Deborah Powers

From: Jeremy McMahan
Sent: Thursday, March 21, 2019 7:54 AM
To: Deborah Powers
Subject: FW: Tree Code Updates

-----Original Message-----

From: Judi Radloff <dejjs@frontier.com>
 Sent: Wednesday, March 20, 2019 8:10 PM
 To: Planning Commissioners <PlanningCommissioners@kirklandwa.gov>
 Subject: Tree Code Updates

Dear Commissioners,

I am a Kirkland resident of 16 years, a steward with the Green Kirkland urban forest restoration program, and an advocate of smart tree preservation. I am writing to encourage improvements to the Kirkland Tree Code that will decrease the rate of mature tree canopy destruction that is primarily associated with redevelopment and reinforced by the lax tree code. Removing 2 significant trees per year allows rapid deforestation of any city lot!

The ecological service value of a mature tree is not accounted for in the current codes because removal of mature trees allows replacement with saplings that take decades to mature. I was devastated when the trees removed at Peter Kirk Elementary for the new construction included a large, healthy madrone tree. It will take 100 years to replace that tree, if it can be replaced at all.

I am in favor of urban density, smart growth as outlined in the Growth Management Act, transit-oriented development, and building walkable neighborhoods. I believe that change is good and that changes are sorely needed to the tree code to recognize the important functions of stands of mature urban trees, not just single trees which is less healthy for trees, and heritage trees that take decades to replace when lost.

We must continue to plant new trees in the right places and keep healthy, existing trees whenever possible to keep Kirkland a healthy, beautiful community.

Thank you for your consideration.

Judi Radloff
 504 19th Place

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