



MEMORANDUM

DATE: April 19, 2018

To: Planning Commission

FROM: Janice Coogan, Senior Planner
Deb Powers, Urban Forester
Adam Weinstein, AICP, Deputy Planning Director

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

I. RECOMMENDATIONS

Conduct a hearing to take public comments on proposed Zoning Code amendments to the Holmes Point Overlay Zone (Chapter 70) and Tree Management and Required Landscaping (Chapter 95). Staff recommends that the public hearing be held over the course of two meetings: commencing on April 26 and continued to the May 24 meeting. The codes, issues and amendments are complex; extending the public hearing over two meetings would allow staff to respond to comments raised by the public, the Finn Hill Neighborhood Alliance, and Planning Commission, and refine the amendments, if warranted, before May 24.

Also included for your information but not part of the public hearing are proposed amendments to the Kirkland Municipal Code (KMC) that would apply City-wide to increase fines and revise code enforcement procedures related to illegal tree removal. The City Council makes final decisions on KMC amendments.

II. BACKGROUND

The Holmes Point Overlay (HPO) Zone is generally dominated by the largest area of sensitive environmental features in the City, including the Lake Washington shoreline, stream corridors, steep slopes greater than 40%, and slopes susceptible to moderate and high landslide and erosion hazards.

Presently, the intent of the HPO regulations is to provide added protection for these natural features by minimizing site disturbance, requiring more stringent lot coverage requirements than elsewhere in the City, preserving 25% of each lot in a natural state, and maximizing tree retention. When the City annexed the Finn Hill neighborhood in 2011, the HPO regulations were adopted much as they were under King County code. This [link](#) opens a map showing the HPO

zone (generally west of Juanita Dr.) and a handout describing the existing Zoning Code requirements.

Since annexation, the City has made a number of policy and regulatory changes in response to requests expressed by the Finn Hill Neighborhood Alliance (FHNA) and other community members to improve the HPO regulations, increase tree retention, provide restoration guidelines and protect the natural features of the area. Below is a chronological list of these efforts.

- The original HPO regulations, adopted in King County in 1999, required 25% of a lot to be set aside in an undisturbed area of native trees and vegetation, to be protected in perpetuity as a Protected Natural Area (PNA). The regulations from King County were adopted with little change as Kirkland Zoning Code Chapter 70 with annexation of the Finn Hill Neighborhood. In 2014, the City amended the HPO regulations to add specific restoration requirements for the 25% set-aside PNAs. For the remaining portion of a lot subject to development, similar tree density credit requirements that were applicable to the rest of the city were added. A more detailed description of the current HPO regulations is discussed in the Code Amendment Section below.
- During the Finn Hill Neighborhood planning process, many residents in the HPO zone expressed the desire for more stringent tree regulations and enforcement actions to protect the tree canopy. Other property owners expressed the desire for more lenient vegetation/tree regulations, similar to the rest of the City. The Neighborhood Plan reflects those and other [public comments](#) received at the public hearing as part of that process.
- Prior to adoption of the Neighborhood Plan and at the request of the Finn Hill Neighborhood Alliance (FHNA), City Council approved an interim moratorium on tree removal occurring over various development phases (O-4584, July 2017; continued by O-4601, Oct 2017). The moratorium prohibited phased development review resulting in tree removal at multiple development stages. Instead, an Integrated Development Plan (IDP) was required to consolidate short plat, subdivision, and clearing and grading with building permit plan review. The goal was to design sites for tree retention upfront, rather than let tree removal result with each development scenario.

In the Holmes Point Overlay area, an IDP goes beyond planning for utilities and access driveways – it allows developers and planners to work together to locate PNAs for optimal native tree and vegetation retention first, then establish suitable locations for structures and development infrastructure in a manner that minimizes site disturbance, responds to any environmental constraints of sites, such as steep slope areas, and allows for appropriate site plan adjustments to be made. Permanent IDP regulations were adopted on November 21, 2017 (O-4619) for the HPO zone.

- In January 2018, the [Finn Hill Neighborhood Plan](#) was adopted, providing the policy basis for implementing the proposed code amendments in the HPO zone:
 - *Neighborhood Value 3: Protect critical areas and preserve tree canopy cover and wildlife habitat to maintain the natural environment.*

- *Policy FH-4.7: Protect, enhance and restore trees in the HPO with a tree canopy goal of 60%.*
 - *Policy FH-4.8: Strengthen the regulations and enforcement of the HPO.*
 - *Policy FH-4.9: Limit site disturbance and retain trees and native vegetation on slopes to avoid or minimize damage to life and property.*
 - *Policy FH-4.10: Encourage clustering development away from slopes susceptible to moderate and high landslide potential to retain natural topography, vegetation and avoid damage to life and property.*
 - *Policy FH-4.11: Conduct a neighborhood education program on the importance of tree retention, planting of native vegetation and HPO.*
- At that same time, rezones were approved with the adoption of the Neighborhood Plan by FHNA request and with the support of individual property owners. In select locations, the rezones lowered allowed residential densities from eight and six dwelling units per acre (equivalent RSA 6 and RSA 8 zoning) to four dwelling units per acre (RSA 4 zoning). The goal of the rezones was to address the miscellaneous mix of King County zoning, reduce density, require larger minimum lot sizes (7,600 sq. ft. in the RSA 4 zone), permit less development over time in order to facilitate greater tree retention and steep slope protection, and to maintain the forested community character.

III. DISCUSSION ISSUES FOR AMENDMENTS

Throughout 2017, issues pertaining to code amendments in the HPO were discussed with the FHNA and Planning Commission during the development of the Neighborhood Plan. Draft code amendments were brought to the Planning Commission in summer of 2017. The Commission directed staff to hold off on adopting the amendments and to continue discussions with the FHNA. After adoption of the Neighborhood Plan, meetings continued with staff and four members of the FHNA Board to discuss a range of issues related to the Holmes Point Overlay regulations (KZC 70) and tree regulations (KZC 95). Planning and Public Works staff involved with HPO development projects met with the FHNA board members to address their concerns, discuss issues with development projects and continue to provide consultation on potential code amendments.

Attachment 1 is a detailed chart of approximately 21 issues staff and the FHNA group jointly identified and discussed over the ensuing months. Many of these issues led to draft code revisions; however staff considered multiple approaches (other than code amendments) to reach a desired outcome. These are noted in Attachment 1 as opportunities to use incentives, change procedures or address gaps in public education and outreach.

Staff and the FHNA group have continued to meet regularly to resolve issues. Overall, staff and the FHNA group reached agreement on the majority of issues discussed, which directed most of the draft code amendments. However, staff and the FHNA did not reach full agreement on a few issues (#3 and #17 in Attachment 1). These issues are discussed at the end of Section IV, below.

IV. PROPOSED CODE AMENDMENTS

Key Objectives for the Code Amendments

While staff does not support all suggestions from the FHNA group in their entirety (as discussed in Attachment 1), staff has made a good faith effort to respond to each of the FHNA concerns. Staff also considered comments from other HPO residents, public meeting attendees, and from emails and letters on these and other issues related to the HPO codes discussed as part of the Finn Hill Neighborhood Plan (see previous comments on the [Finn Hill Neighborhood Project Webpage](#)).

The proposed code amendments and changes to permit review and code enforcement procedures strengthen the overall intent of the HPO since it was adopted at annexation. The proposed changes provide greater environmental protection, work towards meeting the policy goals established in the Finn Hill Neighborhood Plan and provide more stringent environmental protection of steep slopes. They also allow property owners to reasonably develop their properties consistent with established zoning and reasonably manage vegetation on their property.

Summary of Draft Code Amendments

Below is a summary of the proposed amendments recommended by staff for Kirkland Zoning Code (KZC) Chapters 70, 95 and Kirkland Municipal Code (KMC) Title 1.12 and 7.02. Where applicable, this summary references an issue number from Attachment 1 to allow a better understanding how each code amendment relates to issues of concern to the FHNA.

KZC Chapter 70, Holmes Point Overlay regulations (Attachment 2)

Overall - The format of the chapter was reorganized into two key sections: tree removal where no development is involved and tree retention associated with development activity. The reorganization makes it easier for the reader to see minimum tree and vegetation requirements within PNAs. KZC 70 also establishes requirements for the non-PNA portion of lots, clarifying that all site disturbance is limited to the remaining 75% of each lot and that up to 50% of the non-PNA may be used for lawn, landscaping or garden. Inspection and maintenance requirements have been clarified. Due to the volume of edits and reorganized sections, readers may find it easier to compare Attachment 2 (clean copy – no track changes) to the [existing KZC Chapter 70](#).

Section 70.05 Purpose and Intent – Minor edits have been made to this section. The introduction was revised to be consistent with the intent of the regulations and adopted policies in the Neighborhood Plan, and to identify the 60% tree canopy goal in the HPO.

Section 70.10 Applicability - Minor edits were made to this paragraph to clarify that the Chapter applies to properties designated on the Zoning Map as in the HPO zone and references other sections of the Zoning Code and KMC that may apply when developing property.

Section 70.15 Tree Removal - Not Associated with Development Activity- New text was added to describe standards for tree removal requests within a PNA and outside a PNA.

- Tree Removal within a PNA - There are no changes to the current requirements for tree removal within a PNA. Tree removal is only permitted if the tree is shown to be a hazard or nuisance. A tree permit application, fee, arborist report and tree replacement with a native tree species is still required.
- Tree Removal within Non-PNA Portion of property (*New*) During the neighborhood planning process and early discussions about the HPO code amendments, property owners expressed a desire to align tree removal rules outside of PNAs with those in the rest of the City. Generally, up to two trees may be removed during a twelve-month period (with some exceptions) throughout Kirkland, but current KZC language only allows removal of nuisance or hazard trees in the HPO.

In response, the currently-proposed code would allow up to two trees to be removed outside the PNA portion of the lot every five years, without a permit (but requiring a notification to be submitted to the City). No fee would be charged and no arborist report would be required. For each tree removed, one replacement tree would be required to be planted.

See discussion Issues #18 and #13 for more detail. The FHNA originally wanted to limit tree removal to a maximum of two trees every 10 years, but a 5-year time frame was arrived at as a reasonable compromise between the two competing objectives of slowing canopy loss and allowing property owners reasonable maintenance of their property. FHNA also requested to limit tree removal if it reduces canopy cover on the lot below 30%. Staff does not support this last standard because it would unfairly penalize a significant number of property owners with low tree canopy cover under existing conditions (Attachment 7), and because tree canopy cover is a not a metric currently in use for code requirements. Staff believes that it would be overly burdensome on property owners and City staff to attempt to measure or enforce minimum canopy cover on sites not subject to major development activities.

Section 70.20 Tree Retention Associated with Development Activity

- Overall Format - The format of this section was reorganized to describe the regulations associated with development activity within the PNA and non-PNA area of properties. The same proportions of what is allowed to occur within the 75% (non-PNA), 25% (PNA) and 50% (garden/lawn/landscape area) of the lot have not changed. The inspection requirements for PNAs were clarified to describe inspections required prior to permit approval, prior to site disturbance, and prior to final inspection. New final inspection requirements were added to ensure that tree retention and planting occurs per the approved plan. No changes were made to the minimum lot coverage requirements. Section 70.25 regarding variations from standards related to lot coverage was moved to the lot coverage section.

- 70.20.1 - The minimum standards for PNAs were revised to clarify what is expected for optimal size, location, incentives and variations, minimum vegetation, trees, and soil specifications.
- *(New)* In response to Issue #9, text changes to the threshold for single family additions and remodels were made to require PNA designation when proposed improvements are more than 50% of the total square footage of the existing improvements. The previous threshold was based on the cost of an addition (which is not as closely related to impacts or land disturbance as the actual footprint of the addition). Staff recommends PNA designation to increase tree canopy, storm water benefits and wildlife habitat corridors throughout the HPO. The FHNA has previously expressed little support for PNA designation with single family additions and remodels, regardless of size or cost. The consequence of not having a threshold is that any site with an existing structure could essentially redevelop by keeping some piece of that existing structure and never be subject to the PNA requirement. Thus, a PNA would only be designated with development of vacant sites.
- *(New)* In response to Issue #8, new text allows consolidation or clustering of PNAs with short plats, subdivisions and land surface modification permits for more than one lot in order to provide a superior, larger grove of trees to align with the intent of the HPO zone. Existing regulations requiring that 25% of each lot be dedicated as a PNA often results in narrow, isolated, or lower quality PNAs. Clustering PNAs has long been supported by King County and Kirkland planners as a way to improve the function and quality of PNAs.
- *(New)* In response to a FHNA concern that testamentary plats are being approved that were not required to go through an IDP review process, a new requirement ensures PNA designation with land surface modifications of more than one lot. In short, testamentary plats allow property division at death for the benefit of heirs that could otherwise not be done during life. Testamentary plats are allowed as one of the exemptions from the State's provisions for subdivisions governed by RCW 58.17.040. They side-step the City's typical short plat or subdivision review process. Testamentary plats only require a land surface modification permit to install the utilities, access improvements and building permits.
- *(New)* In response to Issue #10, larger consolidated PNAs would be required to be in a tract. Larger PNAs would require signage indicating its location and possibly require the applicant to post a bond (or other security) to ensure long-term maintenance of the PNA. Currently, PNAs can be in an easement or tract.
- 70.20.2- Non-PNA Areas *(New)* In response to Issue #12, all High Retention Value Trees (a defined term in KZC 95) in non-PNA portions of the property **are required to** be retained. This is more restrictive than the current requirement to "retain where feasible" or "to the maximum extent possible." A property owner would need to exhaust all variations and incentives allowed by the code in KZC 95.32 to retain trees. If they are not able to retain the tree, the only mechanism for relief from the requirement would be to apply for a

variance review process (KZC 120). The draft code includes an exception for public infrastructure projects constructed by a public agency. See additional discussion of Chapter 95 amendments below.

- Non-PNA Areas (New) In response to Issue #11, #13, #18 - maintaining the HPO's existing 60% tree canopy cover is a policy goal established in the Finn Hill Neighborhood Plan. Staff wrote a detailed whitepaper (Attachment 6) showing how tree credits equate, albeit indirectly, to tree canopy cover. Under the current regulations, calculations show that an overall 40% tree canopy cover is achieved on a per lot basis over 20 years, taking into account the different PNA and non-PNA requirements.

On a lot-by-lot scale, it was agreed that increasing tree retention and replanting requirements in the PNA was unnecessary because a PNA is required to ultimately have a 100% canopy cover. In response to FHNA's request for increased tree retention and replanting requirements, staff recommends increasing the tree density credits from 30 to 50 tree density credits per acre in the non-PNA. As an example, below is a comparison of existing to proposed tree density credits in the non-PNA area for an average 10,890 sq. ft. lot size in the RSA 4 zone:

Existing tree density requirements at 30 credits per acre equates to 5.64 credits: Retain one 18-inch and one 6-inch DBH tree, or plant six 2-inch caliper trees.

Proposed requirements at 50 credits per acre equates to 9.21 credits: Retain one 16-inch and one 22-inch DBH tree or plant nine 2-inch caliper trees.

Note the non-PNA is the buildable portion of a lot in the HPO. Although staff supports the increase in tree density requirements, we must also acknowledge that this higher tree credit requirement will likely mean that trees will cover structures, further limit garden and lawn areas and view sheds, and may reduce sun exposure on solar panels.

In response to FHNA's concern about whether the increased tree density planting requirements and other code amendments will maintain the HPO's 60% tree canopy cover, two additional amendments are proposed to Section 70.20.6 and 7 associated with development (see Attachment 2):

- In addition to a tree retention plan prepared by an arborist, the applicant must submit a landscape plan prepared by a licensed landscape architect showing existing and supplemental trees meeting the tree density requirements. The landscape architect must show that the trees will grow to achieve a 50% canopy in the non-PNA area and 100% canopy in the PNA area in twenty years' time.
- To ensure the tree size, species and locations shown on the approved landscape plan have been installed as approved, the landscape architect must submit written verification following their final inspection.

Staff acknowledges that this requirement imposes an additional cost to applicants for preparation of the landscape plan, inspection time and verification of final inspection findings.

- In response to Issue #7, clarifications were provided regarding the vegetation, trees, and soil specifications for the optimal PNA and non-PNA areas.

KZC Chapter 95 Tree Management and Required Landscaping changes applicable in HPO zone (Attachment 3)

Section 95.10 Definitions

- *A new* definition of Inner Critical Root Zone (ICRZ) was added, applicable only in the HPO zone. No encroachment would be permitted in the ICRZ unless diagnostic testing indicates the tree will survive the encroachment (see 95.30.5 and 6).

This was added in response to Issues #14, 15, 16 regarding FHNA concerns to improve tree protection and tree retention during construction and minimize impacts to trees on adjacent properties.

Section 95.23 Tree Removal - Not Associated with Development Activity

- 95.23.5.x - Added text to cross-reference KZC 70, stating properties within the HPO area are subject to additional tree removal and replacement standards.

Section 95.30 Tree Retention Associated with Development Activity

- *New* - Added text that properties within the HPO area are subject to additional tree retention and protection regulations in KZC 70, including tree removal allowances, development review processes, PNA designation and use of incentives and variations to standards to retain High Retention Value trees.
- Tree Retention Plan chart, subsection 95.30.5 (*New*) - In response to Issues #10, #12, #15 and #16 – additional HPO requirements were developed for single family, short plat, subdivision and land surface modification developments:
 - i. The Inner Critical Root Zone of trees must be identified.
 - ii. Potential impacts to trees on neighboring properties are subject to notification and authorization requirements.
 - iii. All High Retention Value Trees **must** be retained
 - iv. Potential encroachments to an offsite tree's interior critical root zone would require adjacent property owner notification and acknowledgement.

95.32 Incentives and Variations to Development Standards

- (*New*) Added new text for review of IDPs with short plats, subdivisions and land surface modification applications (more than one lot) that allow consolidation of larger PNAs in tracts (Issue #8). Consolidation of the PNAs may result in smaller lot sizes, which in turn

could result in reduced home sizes and lot coverage restrictions. Therefore, it is recommended that the Planning Director be authorized to increase lot coverage and floor area ratio requirements proportionate to the reduction in lot size resulting from the consolidated PNA. Attachment 5 is an illustration comparing the existing requirements for 25% PNA on each lot and corresponding floor area ratio (50%) and lot coverage requirements (32%) for an average lot of 10,890 sq. ft.. Also shown is the consolidated PNA scenario and how the proportionate increase of FAR of 66.7% and lot coverage of 42.7% could be applied. These variations in development standards would be recorded on the plat or with an agreement.

95.33 Tree Density Requirement

- *(New)* Added text limiting/capping the tree density credits awarded to larger trees in the HPO with the purpose of increasing the number of trees retained (i.e., eliminating the incentive to preserve one or two large-caliper trees in order to meet the tree credit requirement).

Section 95.51 Tree and Landscape Maintenance Requirements

- 95.51.4. Revises tree and vegetation maintenance requirements in the Holmes Point Overlay zone to reflect new tree removal allowances outside the PNA.

Kirkland Municipal Code Titles 1.12. & 7.02 (Attachment 4)

Although the Planning Commission isn't authorized to hold a public hearing or recommend amendments to the Kirkland Municipal Code to the City Council, for informational purposes we are including proposed changes to the KMC with your packet that would apply City-wide. These changes are important to understand because they would also contribute to reaching the 60% tree canopy goal in the HPO.

The City-wide KMC amendments would:

- Assess civil penalty fines for illegal tree removal or damage relevant to tree size, using the Diameter at Breast Height (DBH) industry standard. For example, rather than the previous \$1,000 fine per tree, civil penalty fines would now range from \$1,000 for a 6-8 inch DBH tree to \$20,000 for a tree over 28 inches DBH.
- Address situations where there is evidence that a tree has been illegally removed; the proposed amendments add a \$10,000 civil penalty fine in those situations.
- Codify the City's authority to assess treble damages for illegal public tree removal or damage per RCW 64.12.030
- Clarify the definition and fines for "repeat violations"
- Clarify tree/site restoration requirements; rather than using appraised values, restoration costs would be based on size using tree density credits (trunk diameter, or DBH) multiplied by an industry standard unit cost for replacement.
- Suspend or revoke business licenses for repeat offenders

Staff explored making these amendments partially in response to Issue #17 and the

FHNA group's interest in stricter code enforcement measures. The changes are also in response to increased tree code enforcement cases, recent court cases and the need for the City to increase fines as a deterrent to illegal tree removal.

Procedural Changes

- In response to Issues # 14, 15, 16, 17, administrative procedural changes have been made or are in the process of being implemented. These procedural changes relate to tree protection inspections and enforcement activities during construction, and include updated pre-construction handouts to require acknowledgement of tree retention conditions and requirements, tree protection signage, and inviting Northshore Utility District staff to pre-construction meetings to discuss utility location and plat layout to maximize tree retention. Staff has also met with development review and inspection staff to emphasize the FHNA's concerns. A Voluntary Conservation Easement template is now in place for homeowners who want to designate trees on their property.

Future Work Program Tasks:

- Later in 2018, staff will be undertaking a more comprehensive update of the tree regulations in Chapter 95, at which time any needed adjustments to the chapter's HPO-related amendments could be implemented.
- As an implementation task in the Neighborhood Plan, the Public Works Department will conduct a public involvement process with residents to develop strategies and design standards for three street and corridor studies in 2018-2019:
 - Residential street standards in the HPO
 - Two corridor studies for Holmes Point Drive and NE 131st Way
 - Street and pedestrian connections map for Finn Hill

The key objectives of these studies will be to develop unique street standards that respond to the topographic challenges of the neighborhood and minimize tree removal within public rights of way. Minimizing tree removal within public rights of way associated with development was also discussed with the FHNA as an issue of importance (Issue #5).

- The City is conducting a tree canopy analysis in 2018 to update the 2010 tree canopy data, which may inform any changes to tree retention and replanting requirements.
- A task for future work program years is to increase public education and outreach regarding the City's tree regulations.

Code Changes Not Recommended by Staff at This Time:

The issues or requests from the FHNA that are not recommended by staff are summarized below (see Attachment 1 for more detail):

- Issue #3- FNHA recommended that the current permitted density calculations for lots within the HPO should be further restricted by excluding road dedication or vehicular

access easements in the density calculations or in the minimum lot size and eliminating the allowance for rounding up when the calculated density for the number of lots results in fractions of 0.50 or greater.

This issue was one that staff raised prior to approval of the rezones. Staff disagreed on making both these changes given the down-zones that were already adopted and the impact to property owners by further restricting future redevelopment potential. The HPO regulations already have more restrictive lot coverage requirements than the rest of the City, and further development restrictions would unduly burden property owners. Both the Subdivision regulations and Zoning Code sections have various references to what is included when calculating the size of the lot and in the lot coverage calculations in the RSA zones.

- Issue #17- FHNA members felt strongly about enforcement measures and code compliance in the HPO. Staff addressed the enforcement issues with strong code language, increased fines and clarifying the City's authority to suspend or revoke business licenses for repeat code offenders. However, FHNA will continue to seek increased code enforcement staffing and inspections on development projects, which is beyond current staffing levels.

Up to the submittal of this memo, staff considered code change requests made by the FHNA in lieu of the two issues below, #11 and #12. Staff proposed measures to ensure minimum canopy cover would be met over time with a requirement for applicants to submit a landscape plan developed by a licensed landscape architect. In addition, prior to Planning Official final inspection for the project, a landscape architect would be required to inspect and verify all trees and vegetation were retained and/or planted on the site as shown on the approved landscape plan.

Although reaching an amenable agreement, the issues described in the sections below have not been deleted as FHNA felt strongly about these two issues:

- Issue #11 - FHNA desired to change the City's current tree credit methodology to one that analyzes and projects tree canopy cover on a lot-by-lot basis for a direct correlation to tree canopy cover goals.

Staff wrote a whitepaper to show the correlation between tree density credits and tree canopy cover (Attachment 6). Attachment 7 is a map showing the tree canopy using the 2010 tree canopy data. Staff noted that using tree credit requirements may have contributed to a significant increase (4.4 percent, or 299 acres) in [City-wide](#) tree canopy cover between 2002 and 2010. Staff recommended changes in codes, procedures and incentives to efficiently and effectively increase tree canopy cover. The City's tree credit system is not intended to serve as a direct measurement of tree canopy - rather, it functions as one of many tools to help achieve the City's canopy goals. Since adoption it has worked well as a relatively simple metric to measure and administer (for staff, arborists, and lay persons) tree retention and planting standards.

For these reasons and the likely resulting staff workload capacity issues, staff does not recommend using a different requirement system in the HPO than the mechanism currently in use City-wide. A different methodology for calculating requirements may be considered on a City-wide basis when Chapter 95 KZC is amended and current canopy data is available. Both the Planning Commission and City Council previously gave direction that they do not support two separate tree retention requirement systems.

That said, staff has worked with the FNHA group to draft code amendments for KZC 70 above that would layer onto the credit requirements a requirement that a landscape architect confirm that the existing trees and supplemental tree density requirements will grow to achieve a tree canopy goal of 50% in the non-PNA area and 100% in the PNA area.

- Issue #12- The FHNA requested that large-sized "Exceptional" trees located anywhere on a site be retained unless the applicant proves it would deny all reasonable economic use of property.

Staff disagrees. Creating a new definition and adding a higher level of protection to trees located anywhere on a property could eliminate all development potential. This exposes the City to legal risks beyond acceptable levels for legal takings challenges and is not supported by the City Attorney's Office. Under current regulations, "High Retention Value" (HRV) trees of any size (over 6" DBH) located in setbacks are retained "to the maximum extent possible." Staff also has the authority to require site plan alterations such as building footprint, driveway, easement and utility location modifications to retain High Retention Value trees.

Although "Exceptional Tree" protection by FHNA standards is not recommended, staff proposed language so that High Retention Value trees in the HPO are required to be retained and that incentives and variations are required to be used to retain all HRV trees. As a basic code requirement, an applicant would be required to go through a variance process to remove any HRV tree(s).

- Prior Issue Brought Forth to the Planning Commission/City Council - The FHNA requested that the City prohibit removal of trees located in the public right of way associated with all development.

Staff disagrees and believes the request is not feasible. Because of the fixed location for easements, utilities or access drives, it is often necessary to remove trees with development and with public capital improvement projects. Currently, City staff work with developers to look for opportunities to relocate utilities or access driveways to protect viable trees. In addition, the City has the ability to modify standards to save trees.

Staff Conclusion:

As discussed in the Background section above, since annexation, the City has taken a number of steps to meet the intent and significantly improve the HPO regulations. Tree density credit requirements for retaining and planting trees on development sites are in addition to the original

HPO code under King County. Data from Kirkland's last tree canopy analysis shows the tree density credit system is effective in increasing tree canopy, particularly in comparison to other cities. Rezones lowering the density were adopted and IDP requirements imposed to promote enhanced tree retention. We will revisit the tree canopy vs. tree credit methodology when the tree canopy analysis is completed in 2018.

Staff has made every effort to respond to the various comments submitted by the FHNA group and other property owners received to-date. The amendments will result in more restrictive requirements and increase costs associated with development, require retention of High Retention Value trees, increase the minimum tree density requirement outside the PNA areas to require planting more trees, impose more stringent enforcement of tree retention requirements, and allow consolidation of PNAs to allow for superior tree retention. At the same time, the amendments will allow more flexibility for home owners to remove trees for tree maintenance purposes.

Combined with the amendments, the City is proposing a menu of actions including incentives, changes to procedures, and increased code enforcement for tree protection, along with future community education and outreach to encourage tree retention in the HPO zone.

V. PUBLIC OUTREACH

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:

- Email announcements to the Finn Hill Neighborhood Plan list serve and people who submitted comments throughout the process, including those related to the HPO
- HPO Amendments [project webpage](#) updates
- Email announcements to the HPO list serve
- Direct notification to the Kirkland Developers Partnership
- Direct notification to the Master Builders Association
- Direct notification to the Kirkland Chamber of Commerce

Public comment letters, emails and oral comments related to the Holmes Point Overlay Zone received by the Planning Commission as part of the Finn Hill Neighborhood Plan were also reviewed. Comments are available on the [project webpage](#). In addition, the FHNA solicited comments independently.

VI. CODE AMENDMENT CRITERIA

Zoning Code Section 135.25 establishes the criteria for amendments to 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.

Staff Conclusions:

The proposed amendments bear a substantial relation to the public health, safety, and welfare of the residents of Kirkland. The intent of the amendments are to retain a greater number of trees and lessen site disturbance associated with development, and provide greater protection of steep slopes by retaining more trees and vegetation, and enhancing soils. The amendments are consistent with the provisions of the Comprehensive Plan, especially the Natural Environment and Land Use Elements, and the Finn Hill Neighborhood Plan (which establishes a canopy goal of 60% within the HPO)

VII. ENVIRONMENTAL REVEIW

A State Environmental Policy Act (SEPA) addendum to the *City of Kirkland 2015 Comprehensive Plan Update Draft and Final Environmental Impact Statement* was issued in April prior to the public hearing. The SEPA Addendum compares the difference between the existing code regulations in KZC 70 and 95 and the proposed amendments. The proposed code amendments will result in greater environmental protection (such as by reducing erosion on high landslide hazard steep slopes). A copy of the Addendum is in the official project file.

VIII. 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 April 16, 2018. Adoption is planned for June 19, 2018.

IX. NEXT STEPS

Following the public hearing, the Planning Commission will consider all the public comments received and deliberate on their recommendation to the City Council. A tentative date for the Commission’s deliberation is May 24, 2018 after closing the public hearing. Council action is planned for June 19, 2018.

X. ATTACHMENTS:

1. HPO Code Revision Issues Summary Chart
2. Draft amendments to KZC 70-replaces existing chapter
3. Draft amendments to KZC 95-shows edits
4. Draft amendments to KMC 1.12 and 7.02-shows edits
5. Illustration of FAR and lot Coverage flexibility with aggregation of PNA’s
6. Tree Density Credits & Canopy Cover white paper
7. HPO Tree Canopy Cover GIS Map

HPO CODE REVISION PROJECT SUMMARY
MARCH 1, 2018

Issues & Challenges	Outcome: Code Revisions, Incentives, Education & Outreach, Changes to Procedures	Status
HIGH LEVEL PLANNING/POLICY ISSUES		
1. Preserve community character <i>Balance natural resource preservation with urban growth</i>	Finn Hill Neighborhood Plan - Comp Plan Policy FH-4 establishing 60% tree canopy cover goal in the HPO (no net loss) KZC Chapter 95 - 95.05.1 (Purpose and Intent) language stating "...in the HPO..." Incentives - City-supported tree planting program	Agree
2. HPO boundary expansion <i>Prevent neighborhood-wide loss of tree canopy</i>	No boundary expansion per PC direction	No change
3. Lower density zoning <i>Larger lots more conducive to tree retention</i> NOTE: Chapter 85 amendments may further limit development per GeoHazard mapping project	Comprehensive Plan Land Use policy City of Kirkland Zoning Map - Rezones of RSA 8 and RSA 6 to RSA 4 in the HPO, adopted December 2017 KZC 15: To further restrict development, FHNA wants the following code amendments: <ul style="list-style-type: none"> - Exclude road dedication and vehicular access easements or tracts in density and minimum lot size (equals less lots) - Eliminate allowance for rounding up # of lots when the calculated density results in fractions .5 or greater 	Agree on downzone (adopted) Staff disagrees on eliminating provisions, given downzones & impact to property owners
4. Tree removals on steep slopes <i>Reduce landslide potential linked to tree removal</i>	Changes to Procedures <ul style="list-style-type: none"> - May be outcome of GeoHazard mapping project, citywide KZC 85 updates - PC direction: no changes at this time 	No change
5. Tree removals in the public right-of-way <i>Minimize canopy loss in rights-of-way</i>	KMC 1.12.100 - add treble damage language and reference RCW for public tree removal/pruning violations Coordinate with Public Works projects: <ul style="list-style-type: none"> - HPO, 131st Way Corridor studies - Residential Connectivity/Street Connections Study - Street Standards Revision 	Agree on all
DEVELOPMENT REVIEW & PNA DESIGNATION		
6. Development Review: Integrated Development Plan (IDP) <i>Minimize canopy loss resulting from development phases</i>	KZC Chapter 70 - IDP review required in HPO (adopted 11/21/17) Changes to Procedures - Revise IDP submittal handout (website content, handout, Energov pre-sub meetings, permit completeness checks, etc.)	Agree, adopted Nov 2017, addressing procedural changes

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<p>7. Comprehensive PNA protection for existing native trees, vegetation & soil <i>Maximize ecological functions in PNAs</i></p>	<p>Add vegetation and soil language to code where applicable to reduce stormwater runoff, erosion, forest fragmentation, loss of wildlife habitat and corridors, etc.</p>	<p>Agree</p>
<p>8. PNA consolidation with SPL/SUB <i>Maximize ecological functions in PNAs</i></p>	<p>KZC Chapter 70 – add language to consolidate PNAs/cluster lots. Combined PNA size should equate to 25% of each lot, with City discretion to require best consolidated PNA (location, size, vegetation). Example: “...Planning Director may approve proportionate increases in lot coverage and increased FAR for optimal PNA consolidation. Must be recorded on plat...”</p>	<p>Agree</p>
<p>9. PNA designation with minor development <i>Prevent loss of tree canopy with development</i></p>	<p>KZC Chapter 95.23.5 – For remodels, additions, new SF homes: designate PNAs with development if total square footage of the proposed improvements is > than 50% of the total square footage of the existing structure, consistent with designating grove easements with SF remodels/additions city-wide.</p>	<p>Current FHNA position unclear</p>
<p>10. PNA maintenance (securities/bonds?) <i>PNAs not maintained/unknown to new home owners over time</i></p> <p>NOTE: recorded PNAs are added to City’s GIS Easement Layer. King County shows PNA location on plat (not Assessor’s map).</p>	<p>Outreach – City-supported public education on PNA maintenance Changes to Procedures</p> <ul style="list-style-type: none"> - Consider bond for landscaping/maintenance same as wetlands, depending on size and quality. Maintenance bond at discretion of Planning Director with IDPs for large/consolidated PNAs that require substantial plantings. - Signs to discourage future encroachment required for larger PNAs within Plat (Planner/Director discretion) 	<p>Agree</p>
TREE RETENTION STANDARDS		
<p>11. Credit vs. canopy cover methodology <i>Correlation to canopy goal</i></p> <p>NOTE: see credit-canopy analysis whitepaper, #13 below</p>	<p>Staff/PC does not support using a different methodology (canopy cover %) in the HPO at this time. KZC Chapter 95, KZC Chapter 70</p> <ul style="list-style-type: none"> - Increase minimum tree density credits in Non-PNA to 50 per acre - Award tree credits up to a maximum (30” dbh), resulting in greater existing tree retention. Example: Kenmore - Add landscape plan requirement by licensed LA to ensure 50% canopy cover in 20 years - Require as-built landscape plan and final inspection by LA to verify compliance to approved landscape plan 	<p>No change per 4/18/18</p>
<p>12. “Exceptional” tree protection <i>Protect mature trees for maximum ecological functions</i></p> <p>Initially FHNA wanted to designate and protect “Exceptional” trees located anywhere on site; applicant must prove retention would deny all reasonable economic use of property.</p> <p>NOTE: per CAO: not within Kirkland’s acceptable levels of risk for legal takings challenges</p>	<p>KZC Chapter 95 code revision</p> <ul style="list-style-type: none"> - KZC 95.30 on High Retention Value trees, replace “to the maximum extent possible” and “where feasible” language with “shall be retained in the HPO” - KZC 95.32 <i>Require</i> use of Incentives and Variations to Development Standards to retain High Retention Value trees (in the HPO only), or use variance to (Process I) <p>KZC Chapter 70 code revision</p> <ul style="list-style-type: none"> - KZC 70.15 add “High Retention Value trees” to existing language as a “shall be retained...” <p>KZC 90.180 – add “High Retention Value trees” with subsequent code revision</p> <p>Incentives</p> <ul style="list-style-type: none"> - CAO-approved Voluntary Tree Conservation Easement template for homeowners’ use - City-supported Heritage Tree Program - City-supported ‘Landscaping with Natives’ and mature tree care class 	<p>Agree</p>

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<p>13. Require minimum 30% tree canopy cover retention with development (additional to other requirements) <i>Minimize existing canopy loss from development</i></p>	<p>Staff/PC does not support using a different methodology (canopy cover %) in the HPO at this time. Staff does not recommend 30% canopy retention in addition to downzoning, 25% PNA designation, High Retention Value tree and increased credit requirements for non-PNA area. Other considerations:</p> <ul style="list-style-type: none"> - Effectiveness of city-wide tree regulations 2002-2010 resulting in 300 acres canopy increase - Calculations show current credit requirements result in >40% canopy cover in 20 years (per lot, overall). - Changes to code should be based on Best Available Science (2018 canopy assessment data) - Number of HPO property owners currently <30% canopy cover or with lots under ½ acre 	<p>No change per 4/18/18</p>
<p>TREE PROTECTION & ENFORCEMENT STANDARDS</p>		
<p>14. Tree protection fence placement at Critical Root Zone <i>Improve tree protection compliance during construction</i></p>	<p>KZC 95 – add Inner CRZ definition, clarify CRZ/LOD language, particularly CRZ requirements per KZC 95.34.2(f) KZC 70 (or with citywide KZC 95 amendments):</p> <ul style="list-style-type: none"> - Require Inner CRZ on site plans, no encroachment unless diagnostic testing indicates otherwise (exploratory root excavation, etc.) per applicant’s arborist, subject to City approval. - Require aftercare for encroachments into Inner CRZ - See #15 for offsite tree protection requirements in the HPO <p>Outreach</p> <ul style="list-style-type: none"> - Tree protection workshops for developers, arborists and homeowners - Better utilize Communications Office, Developer’s Forum <p>Changes to Procedures</p> <ul style="list-style-type: none"> - See #16-17 for improved code compliance and enforcement measures - Pre-construction checklist - acknowledgment from offsite tree property owner re: potential impacts to trees. 	<p>Agree</p>
<p>15. Tree protection fence code compliance <i>Minimize damage to trees on development sites</i></p> <p>Update tree protection signs for streamlined inspections and to minimize “fence creep” during construction:</p> <ul style="list-style-type: none"> - Post replacement cost of retained trees per range of DBH (Bothell) x unit cost (ISA standard). - Show LOD distance in feet from trunk - Tree # per arborist report/site plan 	<p>KZC 95.34 – refer to additional tree protection in the HPO KZC Chapter 70</p> <ul style="list-style-type: none"> - Update tree protection signs – see left - Add “not moveable” to fence requirements - Define and clarify CRZ & LOD <p>Tree Protection Fence Standard – update signs, change fence standard from pier blocks to posts driven into ground</p> <p>Changes to Procedures:</p> <ul style="list-style-type: none"> - Signage – see left - Invite Northshore Utilities to pre-con, pre-sub meetings (done) - Increase inspection staff (approved temporarily) - Revise pre-construction checklist signature form. Add “not moveable” language to fence requirements 	<p>Agree</p>

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<p>16. Offsite tree protection <i>Minimize construction impacts to adjacent property trees</i></p> <p>NOTE: see #14 re: Critical Root Zone</p>	<p>KZC 70 – codify: locate PNAs to protect offsite trees where possible KZC Chapter 95.30.6</p> <ul style="list-style-type: none"> - Add City <i>requires</i> applicant/developer communicate early in the process re: offsite trees. Use “applies in the HPO only” (or address with 2018 citywide KZC 95 amendments) - Add “City <i>encourages modifications to development plans to protect offsite trees.</i>” Use “applies in the HPO only” (or with 2018 citywide KZC 95 amendments) - Require offsite tree info in arborist report. Use “applies in the HPO only” (with 2018 citywide KZC 95 amendments) - Requires subject property to notify offsite tree property owners/offsite owners verify receipt of notification - Encroachments into offsite trees’ ICRZ must have consent of adjacent property owner (unless demonstrated no roots are present via testing or other factors) <p>Changes to Procedures</p> <ul style="list-style-type: none"> - Revise SPL/SUB notifications, IDP procedures, permit submittal and pre-sub checklists: add City <i>requires</i> applicant/developer communicate early, must notify adjacent property owners of potential impacts to offsite trees 	<p>Agree</p>
<p>17. Enforcement fines, restoration costs, repeat offenses <i>Address code non-compliance, repeat offenders, inadequate fines and spotty inspections</i></p> <p>All changes vetted through Code Enforcement, Parks, PW, Tree Team, CAO, Finance</p>	<p>Kirkland Municipal Code 1.12.100(1) KMC (?) Amend code to “you shall submit...” per Finance Dept. regards to business licenses Kirkland Municipal Code 7.02.260</p> <ul style="list-style-type: none"> - KMC language to include “know or should have known” - Delete \$100 fine (obsolete) - Clarify “repeat” offender and “on same property” - Use stump diameter, not DBH for violations <p>Incentives - recognition/award for exemplary tree preservation? Outreach: prior to implementing new fines and continued efforts for greater awareness. See #18</p> <p>Changes to Procedures</p> <ul style="list-style-type: none"> - Hire ISA-certified Arborist enforcement staff - Inspection staff - more coordination w/PW & Building - Revise pre-construction checklist and signature form- Done. Currently being implemented - Permit applicant signature required at pre-construction meetings acknowledging applicable tree codes- Done. Currently being implemented. - Develop Code Enforcement procedures for repeat offenders notification (goes to Finance Director) to suspend/revoke business license - Develop template for letters to businesses - Add line in pre-construction checklist “...has authority to suspend/revoke business license per KMC...” Revising checklist may not be necessary because we already have authority in KMC. 	<p>Agree</p> <p style="color: red;">FHNA seeks increased inspections on development sites</p>

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TREE REMOVAL, NO DEVELOPMENT		
<p>18. Appropriate tree removal allowances <i>Minimize canopy loss from tree removals (no development)</i></p>	<p>KZC Chapter 70 INSIDE PNA – No change (tree removals not allowed unless hazard or nuisance). Tree removal may be allowed for thinning (stand management) with arborist report/permit. Reference KZC 95.23.5(e) for Forest Management Plan OUTSIDE PNA - allow removal of up to 2 trees every 5 years: - Notification on honor system (no permit/fee/arborist report/inspections) - Use “up to 2 trees” language in code Replacement on 1:1 basis with same conifer-deciduous type KZC 95.23 – reference removal/replacement standards in KZC 70 with shoreline, critical area requirements Incentives - Voluntary Conservation Easements (CAO-approved template) - Partner, host, support forest stewardship/planning Outreach - for all changes Changes to Procedures - Use “up to 2 trees” language on forms, website, etc. - Add 5 year maintenance agreement text to permit application (vs. maintenance agreement recording/staff inspection costs), subsequent owners contact Planning for removal/replacement history</p>	<p>Agree</p>
MISCELLANEOUS		
<p>19. Public access to development proposals <i>Government transparency</i></p>	<p>Outreach - increase public awareness of current development procedures and how to comment Changes to Procedures - Improved mybuildingpermit.com (online permit portal) functionality, currently slated for 2019-2020 budget - City webpage update project (late 2018?) - Link from City “tree” webpages to access proposed Tree Plans?</p>	<p>Agree on all Improvements with mbp.com</p>
<p>20. Minor code amendment <i>Code interpretation</i></p>	<p>KZC Chapter 70 <i>Per FHNA – add “in addition to PNA” language to “retain all significant trees...”</i></p>	<p>Agree</p>
<p>21. Public awareness <i>Ensure education/outreach occurs per FH Neighborhood Plan Policy FH-4.11 and by City Council request</i></p>	<p>Outreach - Update incorrect/outdated forms asap - Update web content - Create short video(s) on codes/permits, why trees? etc.</p>	<p>Agree on all, prior to code effective date, then as needed</p>

Red text – areas of discrepancy between staff recommendations and FHNA ad hoc group

KZC Chapter 70 – [DRAFT CLEAN COPY] HOLMES POINT OVERLAY ZONE AMENDMENTS 4/19/18

Sections:

- 70.05 Purpose and Intent
- 70.10 Applicability
- 70.15 Tree Removal – Not Associated with Development Activity
- 70.20 Tree Retention Associated with Development Activity

70.05 Purpose and Intent

The purpose of the Holmes Point Overlay (HPO) development standards is to allow infill at urban densities while providing an increased level of environmental protection for the Holmes Point area, an urban residential area characterized by a predominance of critical areas, fewer roads and other impervious surfaces, dense tree and vegetation cover and wildlife habitat. To further the Finn Hill Neighborhood Plan policies, the standards in this Chapter limit allowable site disturbance; reduce visual impacts of development; maintain community character; protect native trees, vegetation and soils; reduce surface water runoff; protect wildlife habitat; slow the loss of tree canopy resulting from tree removal, and establish requirements to maintain a 60 percent tree canopy goal in the HPO.

(Ord. 4437 § 1, 2014; Ord. 4196 § 1, 2009)

70.10 Applicability

This Chapter applies to properties within the HPO Zone on the Kirkland Zoning Map. These regulations add to and in some cases supersede the other regulations of this code, including but not limited to regulations in KZC Chapters 15 (Low Density Residential Zones), 95 (Tree Management and Required Landscaping) and KMC Title 22 (Subdivisions).

Terms and requirements not defined in this section shall be defined as set forth in Chapter 95 KZC

70.15 Tree Removal – Not Associated with Development Activity

Tree removal in the HPO that is not associated with development activity is subject to all standards for tree removal, replacements and tree removal permits as described in Chapter 95.23 KZC, subsections (5)(b) through (d) and the following standards:

1. Permit Required – Protected Natural Area (PNA). No trees shall be removed from a designated PNA unless they are hazard or nuisance trees, or are approved for removal as part of a Forest Management Plan. Any tree removal in a PNA shall be authorized through a tree removal permit as provided in this chapter, unless the activity is exempted in KZC 95.20. Permit application, procedures and appeal requirements shall be in accordance to KZC 95.23.2-4. For every significant tree that is removed from a PNA, the applicant shall plant a native tree species of the same deciduous or coniferous type as the removed tree. Replacement trees shall meet the standards of subsection 70.20.1(f) 2.
2. Tree Removal Allowances – Non-PNA Areas. Any private property owner of developed property may remove up to two significant trees from their property, within a five year period without applying for a tree removal permit, provided that:
 - a. There is no active application for development activity for the site;
 - b. The trees were not required to be retained or planted as a condition of previous development activity; and
 - c. For every significant tree that is removed, the planting of one replacement tree is required. Conifer species are the preferred replacement trees in Non-PNA areas in the HPO. Replacement trees shall meet the standards of subsection 70.20.1(f) 2.

3. Forest Management Plan. Private property owners seeking to remove more than two trees for the purpose of long-term stand management that are not exempt under KZC 95.20 may submit a Forest Management Plan per Chapter 95.23 subsection 5(e) KZC.

70.20 Tree Retention Associated with Development Activity

The following standards shall be applied to all residential development:

1. Protected Natural Area (PNA) Designation.

- a. Applicability - The requirement for designating and restoring a PNA with vegetation set forth in subsection (4)(a) and (b) applies to:
 - 1) New development or redevelopment, 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.
 - 2) Short Plats and Subdivisions.
 - 3) Land Surface Modification (LSM) permits associated with the development of more than one lot.
- b. Size - At least 25 percent of the total lot area shall be designated as a Protected Natural Area (PNA), in a location and configuration that requires the least alteration of existing native soil, native understory, vegetation and trees.
- c. Location – PNA designation, including subdivisions, short subdivisions and Land Surface Modifications associated with the development of more than one lot shall be consolidated in one larger contiguous area on the subject property unless the City determines that designation of more than one area results in superior protection of existing trees and vegetation. The PNA shall be designated to encompass any critical areas on the lot and, to the maximum extent possible, consist of existing viable trees and native vegetation of varying size, age and species that meet the minimum vegetation condition standards set forth in subsection (1)(e) of this section.
- d. Incentives and Variations to Development Standards - Applicants shall pursue Incentives and Variations to Development Standards per Chapter 95.32 KZC to facilitate consolidation of PNAs.
- e. Minimum Tree and Vegetation Conditions in the PNA - Priority is given to designate contiguous areas containing native vegetation meeting the following standards:
 - 1) Trees – Viable trees at a tree density of 150 tree credits per acre within the PNA, calculated as described in KZC 95.33.

Example: A 10,000-square-foot lot requires a 2,500 sq. ft. PNA (10,000 x 25% = 2,500 sq. ft.). Within the 2,500 sq. ft. PNA, nine (9) tree credits are required (2,500 sq. ft./43,560 sq. ft. = 0.057 acres x 150 tree credits = 8.6, rounded up to nine (9) tree credits). Note: the tree density for the remaining lot area is 50 tree credits per acre.
 - 2) Shrubs – Predominately 36 inches high, covering at least 60 percent of the PNA.
 - 3) Living Groundcovers – Covering at least 60 percent of the PNA.
- f. Minimum Supplemental Tree and Vegetation Standards - If the subject property contains insufficient existing vegetation pursuant to subsection (4)(e) of this section, or if the Planning Official determines it is not feasible to retain an existing vegetation area, a PNA shall be restored or established in a location

approved by the Planning Official. The applicant shall provide a landscape plan per subsection 70.20.6(b) showing at a minimum:

- 1) Native Plants - Trees, shrubs and groundcovers selected from the Kirkland Native Plant List, or other native species approved by the Planning Official shall be used to supplement vegetation in the PNA.
 - 2) Trees –The minimum size for a supplemental tree worth one tree credit in the PNA shall be at least six (6) feet in height for a conifer and at least two inches in caliper (DBH) for deciduous or broad-leaf evergreen trees, measured from existing grade. Native conifer tree species are preferred over deciduous trees in the PNA
 - 3) Shrubs – Planted to attain coverage of at least 80 percent of the area within two years, and at the time of planting be between 2- and 5-gallon pots or balled and burlapped equivalents.
 - 4) Living Groundcovers – Planted from either 4-inch pot with 12-inch spacing or 1-gallon pot with 18-inch spacing to cover within two years 80 percent of the naturalized area.
 - 5) Soil Specifications – Soils in supplemental vegetation areas shall be amended to comply with soil amendment standards in the City of Kirkland Public Works Pre-Approved Plans and Policies.
 - 6) Mulch – Mulch in supplemental vegetation areas shall comply with KZC 95.50.
 - 7) Prohibited Plants – Invasive weeds, noxious plants and trees listed on the Kirkland Prohibited Plant List shall be removed within the PNA in a manner that will not harm trees and vegetation that are to be retained.
2. Non-PNA Portion of Property. Total site alteration, including impervious surfaces and other alterations, shall not exceed 75 percent of the total lot area. In addition to the PNA and the area allowed for buildings and other impervious surfaces under section (4), up to 50 percent of the total lot area may be used for garden, lawn or landscaping, provided:
- a. All High Retention Value Trees, as defined in Chapter 95 KZC, shall be retained in the garden, lawn or landscaping portion of property. Supplemental and existing viable trees combined at a minimum tree density of 50 tree credits per acre are required in the Non-PNA portion of property, calculated as described in KZC 95.33. Example: A 10,000-square-foot lot requires a 2,500 sq. ft. PNA ($10,000 \times 25\% = 2,500$ sq. ft.), leaving a 7,500-square-foot Non-PNA area. Within the Non-PNA, nine (9) tree credits are required ($7,500 \text{ sq. ft.} / 43,560 \text{ sq. ft.} = 0.172$ acres) \times 50 tree credits = 8.6, rounded to nine (9) tree credits.

The area limits set forth in this subsection are to be measured at grade level; the area of allowable garden, lawn or landscaping may intrude into the drip line of a significant tree required to be retained under this subsection if it is demonstrated not to cause root damage or otherwise imperil the tree's health; and
 - b. If development on the lot is to be served by an on-site sewage disposal system, any areas required by the Department of Public Health to be set aside for on-site sewage disposal systems shall be contained as much as possible within the portion of the lot altered for garden, lawn or landscaping as provided by this subsection. If elements of the on-site sewage disposal system must be installed outside the landscaped area, the elements must be installed so as not to damage any significant trees required to be retained under subsection (3)(a) of this section, and any plants that are damaged must be replaced with similar native plants.
 - c. Soils on all proposed projects that are subject to clearing and grading that have not been covered by impervious surface, incorporated into a drainage facility or engineered as structural fill or slope shall, at project completion, meet soil amendment requirements per Pre-Approved Plan CK-E.12 within the clearing limits, i.e. in all disturbed areas. In the HPO, this will include all areas where alteration of soil characteristics has occurred.

3. Critical Areas, Surface Water Development Review. When review under Chapter 85 KZC (Critical Areas: Geologically Hazardous Areas) or Chapter 90 KZC (Critical Areas: Wetlands, Streams, Minor Lakes, Fish and Wildlife Habitat Conservation Areas and Frequently Flooded Areas) or the City of Kirkland’s Surface Water Design Manual is required, the review shall assume the maximum development permitted by this Chapter will occur on the subject property, and the threshold of approval shall require a demonstration of no significant adverse impact on properties located downhill or downstream from the proposed development.
4. Maximum Lot Coverage. Total lot coverage shall be limited within every building lot as follows:
 - a. On lots up to 6,500 square feet in size, 2,600 square feet;
 - b. On lots 6,501 to 9,000 square feet in size, 2,600 square feet plus 28 percent of the lot area over 6,500 square feet;
 - c. On lots over 9,000 square feet in size, 3,300 square feet plus 10 percent of the lot area over 9,000 square feet;
 - d. On a lot already developed, cleared or otherwise altered up to or in excess of the limits set forth above prior to July 6, 1999, new impervious surfaces shall be limited to five (5) percent of the area of the lot, not to exceed 750 square feet; and
 - e. For purposes of computing the allowable lot coverage within each lot, private streets, joint-use driveways or other impervious-surfaced access facilities required for vehicular access to a lot in easements or within flag lots shall be excluded from calculations.

Maximum Lot Coverage Summary Table:

Lot Size	Maximum Lot Coverage
Less than 6,500 sq. ft.	2,600 sq. ft.
6,501 sq. ft. to 9,000 sq. ft.	2,600 sq. ft. plus 28% of the lot area over 6,500 sq. ft.
9,001 sq. ft. or greater	3,300 sq. ft. plus 10% of the lot area over 9,000 sq. ft.
Developed, cleared or altered lots	New impervious limited to 5% of the total lot area, but not to exceed 750 sq. ft.

- f. For development activity occurring after July 6, 1999, upon written request from the applicant, the Planning Director may allow up to a 10 percent increase in impervious surface on individual lots over the limits set forth above, provided such increase is the minimum necessary to allow reasonable use of the property and meets all other applicable decision criteria for a variance as provided in Chapter 120 KZC, and one or more of the following circumstances applies:
 - 1) Development of a lot will require a driveway 60 feet or longer from the lot boundary to the proposed dwelling unit;
 - 2) On-site flow control facilities are required by the Public Works Department;
 - 3) The requested increase will allow placement of new development on the site in such a way as to allow preservation of one or more additional significant trees, as defined in Chapter 95 KZC, that would otherwise be cleared; or

The Kirkland Zoning Code is current through Ordinance 4619, passed November 21, 2017.

- 4) The requested increase is necessary to provide additional parking, access ramp or other facilities needed to make a dwelling accessible for a mobility-impaired resident.

(Ord. 4437 § 1, 2014; Ord. 4196 § 1, 2009)
5. Subdivisions, Short Subdivisions and Land Surface Modifications. Subdivisions, short subdivisions, and land surface modification permits associated with the development of more than one lot shall be subject to the following requirements:
 - a. Applications shall include a comprehensive review of Tree Retention Plan as outlined in KZC 95.30, including the location of the required PNA. Phased review of Tree Retention Plans as described in KZC 95.30(6)(a) is not permitted within the HPO zone;
 - b. The applicant may propose or the City may require alterations to the proposed subdivision, short subdivision, or LSM in order to ensure the best tree retention and location for the PNA. Such alterations include 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 per Chapter 95.32;
 - c. New public or private road improvements shall be the minimum necessary to serve the development on the site in accordance with Chapter 110 KZC. The City shall consider granting modifications to the road standards to further minimize tree removal, site disturbance, and consistent with pedestrian and traffic safety considerations, and the other purposes of the road standards;
 - d. Impervious surfaces and other alterations within each lot shall be limited as provided in subsections (2), (3) and (4) of this Section;
 - e. For larger PNAs, the City may require permanent signage to be installed along the perimeter of the PNA designating the area as a PNA prior to recording. Signage shall meet the administrative standards of the Planning and Building Department in regard to design, number and location. The signs must be maintained and remain in perpetuity; and
 - f. The proposed PNA shall generally be established within a separate tract. The approved PNA shall be shown on the face of the plat prior to recording and designate who is responsible for maintaining the PNA.
6. Tree Retention and Landscape Plan Required.
 - a. The applicant shall submit a Tree Retention Plan required under KZC 95.30. In addition, it shall include the existing conditions and general locations of all shrubs and groundcover on the subject property.
 - b. In addition to the Tree Retention Plan required pursuant to KZC 95.30, permit application materials shall include a landscape plan prepared by a landscape architect licensed in Washington State that clearly depicts the quantity, location, species, and size of existing and supplemental plant materials and trees proposed to comply with the tree density and vegetation requirements of this section for the PNA and Non-PNA portions of the subject property. The landscape architect shall indicate on the plan that based on the size, quantity, spacing and species of the existing and supplemental trees, a minimum 50% tree canopy cover in the Non-PNA area and 100% tree canopy cover in the PNA area portions of the lot will be achieved in twenty years' time. Plants installed in the PNA shall be integrated with existing native vegetation and planted in a naturalistic pattern per the standards in Chapter 83.400 KZC. The landscape plan shall be reviewed by the Planning Official for approval.
7. Site Inspections. The Planning and Building Department shall conduct site inspections prior to approving any site alteration or development activity as follows:
 - a. Prior to altering the site, the applicant shall clearly delineate the proposed PNA and the area of the lot proposed to be altered and built on with 4-foot high stakes and high-visibility tape or other conspicuous and durable means, and shall depict this area on all site plans included in the permit application;

- b. Prior to approving any short subdivision, subdivision, building or land surface modification permit on any parcel, the Planning Official shall inspect the subject property to verify the existing conditions, tree and vegetation cover, and any previous site alteration or building on the site;
- c. Prior to permit issuance, the applicant shall install tree and soil protective fencing per KZC 95.34, subject to Planning Official inspection. The protective fencing shall remain in the approved location for the duration of development activities, including required soil amendments; and
- d. Prior to Planning Official final inspection of any land surface modification or building permit, or recording of any short plat or subdivision, a landscape architect licensed by the State of Washington shall inspect the landscaping and submit an as-built plan and photo documentation verifying to the Planning Official that all vegetation required to be planted or preserved as indicated on the approved landscape plan was installed.

8. Tree and Landscape Maintenance Requirements

In general, forested hydrological conditions, soil stability and the duff layer shall be maintained on properties in the HPO as follows:

- a. Protected Natural Area(s) – PNA(s) shall be retained in perpetuity.
 - 1) For subdivisions, short subdivisions and LSMs associated with more than one lot, PNAs shall be set aside in a tract. In other developments, a recorded protected easement is required. The approved PNA shall be shown in a form approved by the City Attorney or other legal document recorded with and on the face of the plat with a designation of who is responsible for maintaining the PNA. Land survey information shall be provided for this purpose in a format approved by the Planning Official.
 - 2) The applicant, landowner, or successors in interest shall be responsible for the ongoing maintenance of vegetation required under Section 70.20 of this Chapter and KZC 95. For short plats and subdivisions containing larger consolidated PNAs where extensive supplemental planting is required, the City may require a financial security under Chapter 175 KZC to ensure compliance with the monitoring and maintenance of trees and vegetation planted in the PNA.
 - 3) Plants that die must be replaced in kind or with similar plants contained on the Native Plant List, or other native species approved by the Planning Official.
 - 4) Construction of primitive pedestrian-only trails may occur if they can be designed with minimal environmental impact. In no case shall trails be constructed of concrete, asphalt, or other impervious surfaces.
- b. Non-PNA Portions of the lot which are not geologically hazardous areas or do not contain wetlands, streams, minor lakes, fish and wildlife habitat conservation areas and frequently flooded areas, or critical areas governed by Chapter 85 or 90 KZC, shall be maintained per Chapter 70.15.2 KZC.

9. Conformance with Other Provisions. Conformance with this Chapter shall not relieve an applicant from conforming to any other applicable provisions of the Zoning Code, Subdivision Ordinance, or Shoreline Master Program.

(Ord. 4619 § 1, 2017; Ord. 4551 § 4, 2017; Ord. 4491 §§ 3, 11, 2015; Ord. 4437 § 1, 2014; Ord. 4196 § 1, 2009)

KZC Chapter 95 – [DRAFT CODE AMENDMENTS WITH MARKUPS] TREE MANAGEMENT AND REQUIRED LANDSCAPING 4/13/18

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 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 Natural Resource Management Plan.
- i. Preserve and protect street trees, trees in public parks and trees on other City property.
(Ord. 4238 § 2, 2010; Ord. 4010 § 2, 2005)

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 American Association of Nurserymen standard for trunk measurement of nursery stock. Caliper of the trunk shall be the trunk diameter measured six (6) inches above the ground for up to and including 4-inch caliper size and 12 inches above the ground for larger sizes.
2. Critical Root Zone – The area surrounding a tree at a distance from the trunk, which is equal to one (1) foot for every inch of trunk diameter measured at 4.5 feet from grade or otherwise determined by a qualified professional (example: one (1) foot radius per one (1) inch DBH).

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 from the ground. 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.
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.
8. Impact – A condition or activity that affects a part of a tree including the trunk, branches, and critical root zone.
 - x. Inner Critical Root Zone (ICRZ) – An area encircling a tree that is half the distance of the Critical Root Zone, or the inner half of the Critical Root Zone radius. Applicable only in the HPO only.
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.
11. Public Works Official – Designee of the Public Works Director.
12. 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 Certification (TRACE) 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;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 Value – The Planning Official’s designation of a tree based on information provided by a qualified professional that is one (1) of the following:
 - a. High, a viable tree, located within required yards and/or required landscape areas. Tree retention efforts shall be directed to the following trees if they are determined to be healthy and windfirm by a qualified professional, and provided the trees can be safely retained when pursuing alternatives to development standards pursuant to KZC 95.32:
 - 1) Specimen trees;
 - 2) Tree groves and associated vegetation that are to be set aside as preserved groves pursuant to KZC 95.51(3);
 - 3) Trees on slopes of at least 10 percent; or
 - 4) Trees that are a part of a grove that extends into adjacent property, such as in a public park, open space, critical area buffer or otherwise preserved group of trees on adjacent private property. If significant trees must be removed in these situations, an adequate buffer of trees may be required to be retained or planted on the edge of the remaining grove to help stabilize;
 - b. Moderate, a viable tree that is to be retained if feasible; or
 - c. Low, a tree that is either (1) not viable or (2) is in an area where removal is unavoidable due to the anticipated development activity.

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.
15. 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.
19. Tree Removal – The removal of a tree, through either direct or indirect actions, including but not limited to: (1) clearing, damaging or poisoning resulting in an unhealthy or dead tree; (2) removal of at least half of the live crown; or (3) damage to roots or trunk that is likely to destroy the tree’s structural integrity.
20. 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.
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. (Ord. 4551 § 4, 2017; Ord. 4238 § 2, 2010; Ord. 4193 § 1, 2009; Ord. 4010 § 2, 2005)

95.23 Tree Removal – Not Associated with Development Activity

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, 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. It is unlawful for any person (other than City crews) to remove, prune, trim, modify, alter or damage a tree in a public park or on any other City property.

No person, directly or indirectly, shall remove any significant tree on any 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 95.20 and subsection (5) of this section.
3. Tree Removal Permit Application Form. The Planning and Building Department and Public Works Department shall establish and maintain a tree removal permit application form to allow property owners to request City review of tree removal for compliance with applicable City regulations. The tree removal application form shall include at a minimum the following:
 - a. A site plan showing the approximate location of 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).
4. Tree Removal Permit Application Procedure and Appeals.
 - a. Applicants requesting to remove trees must submit a completed permit application on a form provided by the City. 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. The removal shall be completed within one (1) year from the date of permit approval.
5. 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 trees from their property within a 12-month period without having to apply for a tree removal permit; provided, that:
 - 1) There is no active application for development activity for the site;

- 2) The trees were not required to be retained or planted as a condition of previous development activity; and
 - 3) All of the additional standards for tree removal and tree removal permits as described in subsections (5)(b) through (e) of this section are met.
The Planning and Building Department shall establish and maintain a tree removal request form. The form may be used by property owners to request Department review of tree removal for compliance with applicable City regulations.
- b. Tree Retention and Replacement Requirements.
- 1) 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.
 - 2) Tree Replacement.
 - a) For every 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) If a tree removal request is for one (1) or both of the trees required to remain, 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.
 - c) For all other 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 95.45.
- c. Shoreline Jurisdiction. Properties located within the City’s 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.
[\(x\) Holmes Point Overlay zone. Properties located within the Holmes Point Overlay area are subject to additional tree removal and replacement standards. See Chapter 70 KZC for additional standards.](#)
- d. Removal of Hazard or Nuisance Trees. Any private property owner seeking to remove any number of significant trees which are a hazard or nuisance from developed or undeveloped property or the public right-of-way shall first obtain approval of a tree removal permit and meet the requirements of this subsection.
- 1) Tree Risk Assessment. If the nuisance or hazard condition is not obvious, a tree risk assessment prepared by a qualified professional explaining how the tree(s) meet the definition of a nuisance or hazard tree is required. Removal of nuisance or hazard trees does not count toward the tree removal limit if the nuisance or hazard is supported by a report prepared by a qualified professional and approved by the City.
 - 2) Trees in Critical Areas or Critical Areas Buffers. See Chapter 90 KZC.
 - 3) 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.
- e. Forest Management Plan.
- 1) A Forest Management Plan must be submitted for developed, significantly wooded sites (over 40 percent canopy coverage) of at least 35,000 square feet in size in which removal of more than two (2) trees is requested and is not exempt under KZC 95.20. A Forest Management Plan must be developed by a qualified professional and shall include the following:
 - a) A site plan depicting the location of all 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;
 - b) Identification of trees to be removed, including reasons for their removal and a description of low impact removal techniques pursuant to subsection (5)(e)(2) of this section;
 - c) A reforestation plan that includes location, size, species, and timing of installation;
 - 2) The following Forest Management Plan standards shall apply:
 - a) Trees to remain should be dominant or co-dominant in the stand, healthy and windfirm.
 - b) No removal of trees from critical areas and their buffers, unless otherwise permitted by this chapter.
 - c) No removal of specimen trees, unless otherwise permitted by this chapter.
 - d) No removal of healthy trees that would cause trees on adjacent properties to become hazardous.
 - e) 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.

f) 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.

g) Removal of tree debris shall be done pursuant to Kirkland Fire Department standards.

h) Recommended maintenance prescription for retained trees with a specific timeline for such management.

(Ord. 4551 § 4, 2017; Ord. 4491 § 3, 2015; Ord. 4437 § 1, 2014; Ord. 4408 § 1, 2013; Ord. 4372 § 1, 2012; Ord. 4238 § 2, 2010)

95.30 Tree Retention Associated with Development Activity

1. Introduction. The City's objective is to 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 plans as necessary.

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, [including tree removal allowances, development review requirements, Protected Natural Area designation, soil amendment requirements and the use of Incentives and Variations to development standards to retain High Retention Value trees.](#)

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

3. Tree Retention Plan Review. 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.

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.

4. Tree Retention Plan Components. The tree retention plan 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 containing the following:
 - 1) A numbering system of all existing significant trees on the subject property (with corresponding tags on trees); the inventory must also include significant trees on adjacent property with driplines extending over the subject property line;
 - 2) Limits of Disturbance (LOD) of all existing significant trees (including approximate LOD of off-site trees with overhanging driplines);
 - 3) Size (DBH);
 - 4) Proposed tree status (trees to be removed or retained);
 - 5) Brief general health or condition rating of these trees (i.e.: poor, fair, good, excellent, etc.);
 - 6) Tree type or species.
 - b. A site plan 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 location of significant trees on the subject property (surveyed locations may be required). The site plan must also include the approximate trunk location and critical root zone of significant trees that are on adjacent property with driplines extending over the subject property line;
 - 3) Trees labeled corresponding to the tree inventory numbering system;
 - 4) Location of tree protection measures;
 - 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, the Inner Critical Root Zone must be shown on the site plan;
 - 6) Proposed tree status (trees 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 or minimum number of trees as outlined in KZC 95.33.
 - c. An arborist report containing the following:
 - 1) A complete description of each tree's health, condition, and viability. In the HPO, include off-site trees that may be potentially impacted by site disturbances;
 - 2) A description of the method(s) used to determine the limits of disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees);
 - 3) Any special instructions specifically outlining any work proposed within the limits of the disturbance protection area (i.e., hand-digging, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare)
 - 4) For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects, unavoidable isolation (windfirmness), or unsuitability of species, etc., and for which no reasonable alternative action is possible must be given (pruning, cabling, etc.);
 - 5) Describe the impact of necessary tree removal to the remaining trees, including those in a grove or on adjacent properties;
 - 6) For development applications, a discussion of timing and installation of tree protection measures that must include fencing and be in accordance with the tree protection standards as outlined in KZC 95.34; and
 - 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.

5. Tree Retention Plan. The applicant shall submit a Tree Retention Plan that includes the components identified in the following chart based on the proposed development activity.

TREE RETENTION PLAN

Development Activity Required Components	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)
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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	
Indicate the Inner Critical Root Zone of trees on properties in the HPO per 95.10.xx			<u>X</u>	<u>X</u>

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

[All significant trees on neighboring properties per 95.30.6\(a\)3](#)

X

X

TREE RETENTION STANDARDS

Applicant is encouraged to retain viable trees X⁽⁴⁾

[All High Retention Value trees shall be retained in the HPO.](#)

X⁽⁶⁾

X⁽⁶⁾

X⁽⁶⁾

[Notification/authorization for significant trees on neighboring properties in the HPO.](#)

X

X

X

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

Notes:

- (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.

(6) Preservation and maintenance agreements in the Holmes Point Overlay zone apply per KZC 70. Public infrastructure projects constructed by a public agency are exempt from this retention standard, but subject to all other applicable retention standards.

6. 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, tree retention for subdivision or short plat applications and land surface modification applications associated with the development of more than one lot shall provide be determined –a comprehensive review of Tree Retention Plans through an integrated process as outlined in subsections (2) through (5) of this section. 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 of the potential impact. If any disturbance is proposed within the Inner Critical Root Zone of significant trees on a neighboring property, the applicant shall provide written authorization from the property owner of the impacted tree(s) for the encroachment. The Planning Official may waive this requirement if the applicant can demonstrate, through non-injurious methods such as air root excavations, that there are no roots within the Critical Root Zone.

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.

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 modification to the Tree Retention Plan may be approved as follows:

- 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.
- 2) Modification Prior to Tree Removal. The Planning Official may approve a modification request to decrease the minimum number of tree density credits associated with trees previously identified for retention if:
 - a) 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 consistent with the noticing requirements for the short plat.

- 3) Modification after Tree Removal. A modification request is required to 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 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 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; and
 - e) Said comment period shall not be less than 14 calendar days.

(Ord. 4619 § 1, 2017; Ord. 4437 § 1, 2014; Ord. 4252 § 1, 2010; Ord. 4238 § 2, 2010; Ord. 4010 § 2, 2005)

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.

6. Additional variations in the Holmes Point Overlay zone for short plats, subdivisions, and land surface modification applications associated with the development of more than one lot. The Planning Director may approve variations to maximum Floor Area Ratio and Lot Coverage requirements in order to facilitate consolidation of the PNA within a separate tract pursuant to KZC 70. If the PNA is placed in a tract and the creation of the tract results in lot sizes reduced below 10,890 square feet in the RSA 4 zone or 7,260 square feet in the RSA 6 zone, then the

maximum Floor Area Ratio and Lot Coverage requirements may be adjusted proportionate to the lot size reduction(s). Variations shall be included in a recorded agreement.

(Ord. 4547 § 1, 2016; Ord. 4350 § 1, 2012; Ord. 4238 § 2, 2010)

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.

Protected Natural Areas (PNA) located on properties within the HPO zone are subject to tree density credits set forth in Chapter 70 KZC

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.
- c. In the HPO, no tree shall receive more than 11 tree credits regardless of DBH.

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.
(Ord. 4547 § 1, 2016; Ord. 4238 § 2, 2010)

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. All required landscaping shall be maintained throughout the life of the development. 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. 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.
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. [Trees and other](#) vegetation in designated Protected Natural Areas in the Holmes Point Overlay Zone ~~is~~ are to be protected in perpetuity pursuant to KZC 70.20.8(a). Significant trees in the remainder of the lot shall be ~~protected in perpetuity~~ maintained pursuant to KZC 70.20.8(b) [and KZC 95.23](#).
5. Nonnative Invasive and Noxious Plants. It is the responsibility of the property owner to remove nonnative invasive plants and noxious plants 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 will not harm the tree or other vegetation that the City 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.

(Ord. 4551 § 4, 2017; Ord. 4437 § 1, 2014; Ord. 4238 § 2, 2010)

KIRKLAND MUNICIPAL CODE [PROPOSED AMENDMENTS] 4/13/18

Title 1.12.100 Special provisions relating to enforcement of tree regulations in Chapter 95 KZC.

(a) General Requirements. This section applies to all trees in the city, including private property trees, public property trees and street trees. Enforcement shall be conducted in accordance with procedures set forth in this chapter. Special enforcement provisions related to tree ~~conservation~~ retention and restoration are set forth in this section.

(b) Authority. It shall be the duty of the applicable department director to administer the provisions of this section.

(c) Civil Penalty Fines for Tree Removal.

- (1) ~~Each unlawfully removed or damaged tree shall constitute a separate violation.~~ It is unlawful to remove or damage trees in violation of the tree regulations in Chapter 95 KZC.
- (2) In addition to the definitions established in Title 1.12.020 KMC, any person who aids or abets in the violation shall be considered to have committed a violation for purposes of fines.
- (3) Types of violations. (Moved here from Table 1.12.100) Violations of this code include, but are not limited to, the following:

- (A) Removal ~~of or damage to~~ tree(s) ~~approved to be removed, but~~ prior to final tree retention plan approval or issuance of a city tree removal permit; ~~[Allowable fines per violation—\$100 per tree]~~
- (B) Removal or damage ~~of to~~ tree(s) that are ~~or would be shown, or would be shown,~~ to be retained on an approved tree retention plan or any other violation of an approved tree retention~~protection~~ plan; ~~[Allowable fines per violation—\$1,000 per tree]~~
- (C) Removal or damage of to tree(s) without applying for or obtaining a required city tree removal permit; ~~[Allowable fines per violation—\$1,000 per tree] or~~
- (D) Removal or damage to trees in violation of the terms and conditions of an issued City permit, including any and all violations of American National Standards Institute (ANSI) A300 Pruning Standards.

(4) Civil penalty fines shall be assessed in accordance with Table 1.12.100. ~~Fines are due according to the corrective action described in the notice of tree fines and restoration due, based on the Diameter at Breast Height (DBH) of the unlawfully removed or damaged tree trunk. If the DBH of an unlawfully removed or damaged tree cannot be established, the diameter of the remaining stump top shall be used in lieu of DBH. In cases where the stump has been removed but where other evidence indicates a pre-existing tree, the City shall assess a minimum \$10,000 civil penalty fine per unlawfully removed tree. Fines may be assessed against the responsible party in addition to the cost(s) of restoration.~~ The applicable department director may elect not to seek fines if he or she determines that the circumstances do not warrant imposition of fines in addition to the cost(s) of restoration.

Table 1.12.100 <u>Civil Penalty Fines</u>	
<u>Types of Violations Unlawfully Removed or Damaged Tree DBH or Stump Diameter</u>	<u>Allowable Fines per Violation Tree</u>
<u>Larger than 6 and up to 8 inches</u>	<u>\$1,000</u>
<u>Larger than 8 and up to 12 inches</u>	<u>\$2,000</u>

<u>Table 1.12.100 Civil Penalty Fines</u>	
<u>Types of Violations Unlawfully Removed or Damaged Tree DBH or Stump Diameter</u>	<u>Allowable Fines per Violation Tree</u>
<u>Larger than 12 and up to 16 inches</u>	<u>\$4,000</u>
<u>Larger than 16 and up to 20 inches</u>	<u>\$8,000</u>
<u>Larger than 20 and up to 24 inches</u>	<u>\$12,000</u>
<u>Larger than 24 and up to 28 inches</u>	<u>\$16,000</u>
<u>Larger than 28 inches</u>	<u>\$20,000</u>
<u>Tree stump has been eliminated</u>	<u>\$10,000</u>

(5) The fine per-tree penalty for repeat violations shall be determined by multiplying the fine per tree amount in Table 1.12.100 by the number of violations. For example, the fine per-tree amount for second-time violations is multiplied by two, and the fine per-tree amount for third-time violations is multiplied by three, and so on.

(6) Treble Damages. Where violation(s) result in the unlawful removal of or damage to public trees, the City may assess treble damages per RCW 64.12.030.

(d) Tree and Site Restoration.

(1) Restoration Plan. ~~Violators of Chapter 95 KZC or of a permit issued thereunder shall be responsible for restoring unlawfully damaged areas, in conformance with a restoration plan approved by the applicable department director. The goal of the restoration plan shall be a site condition that, to the greatest extent practical, equals the site condition that would have existed in the absence of the violation. In cases where the violator intentionally or knowingly violated this chapter or has committed previous violations of this chapter, restoration costs may be based on the city appraised tree value of the subject trees in which the violation occurred, utilizing the industry standard trunk formula method in the current edition of the "Guide for Plant Appraisal." If diameter of removed tree is unknown, determination of the diameter size shall be made by the applicable department director by comparing size of stump and species to similar trees in similar growing conditions. The amount of costs above the approved restoration plan will be paid into the city forestry account.~~

(A) **(Moved from (1) above)** ~~The restoration plan shall provide for depict repairs of any environmental and property damage and restoration of the site.~~

(B) Tree violations that occur in critical areas and their buffers, on properties within shoreline jurisdiction and within the Holmes Point Overlay zone are subject to the restoration plan requirements per Chapters 90, 85, 83 and 70 KZC, respectively.

(C) **(Moved from (1) above)** ~~...in conformance with a restoration plan approved by the applicable department director. Restoration plans shall be approved by the applicable department director. If the violation occurred to public trees, such as trees located in parks or in the right-of-way, the applicable department director may require a violator to pay fees in lieu of restoration per KMC 1.12.100(d)3.~~

(2) Restoration Plan Standards. The restoration plan shall be in accordance to the following standards:

(A) The number of trees required to be planted ~~is shall be~~ equal to the number of tree credits of illegally removed trees according to Table 95.33.1 KZC.

(B) The minimum size for a tree planted for restoration ~~is twelve-foot tall shall be a six-foot-tall conifer and/or threetwo-~~inch caliper deciduous or broadleaf evergreen tree. The City may approve smaller restoration tree sizes at a higher restoration ratio, ~~provided the site has capacity for the additional trees and the results of restoration at a higher restoration ratio are as good or better than at the normal ratio depending on the size, quality and species of the removed tree.~~

(C) The restoration plan shall include a maintenance plan and an agreement or security to ensure survival and maintenance of restoration trees for a minimum three-year period ~~unless; provided, if~~ the violation was on a site with an approved tree retention plan, ~~in which case~~ the maintenance period ~~is shall be a minimum of~~ five years.

(3) **(Moved from above)** In the event the violators cannot restore the unlawfully removed or damaged trees, the violators shall ~~make payments~~ pay a fee in lieu of restoration to the City Forestry Account.

(A) Fees in lieu of restoration shall be based on the value of the subject trees, utilizing the most recent version of the Pacific Northwest Chapter International Society of Arboriculture (ISA) "Species Ratings for Landscape Tree Appraisal" unit cost for conifer and/or deciduous tree replacement, multiplied by the number of illegally removed tree credits per Chapter 95.33.1 KZC.

(B) If the diameter at breast height of a removed or damaged tree trunk is unknown, determinations of tree value shall be made per KMC 1.12.100(c)4.

(e) Hearing on Violation, Failure to Restore or Failure to Pay Fines. The city ~~may issue shall enforce this code via issuance of~~ a notice of civil violation to the ~~person(s) who violates Chapter 95-KZC or a permit issued thereunder and fails to restore or pay fines according to the procedures set forth in this chapter.~~ violator(s) according to the procedures set forth in ~~this chapter~~ Chapter 1.12 KMC. ~~The hearing on the notice of civil violation shall be held in accordance with KMC 1.12.050 and shall determine whether the person(s) violated applicable tree regulations or permit conditions and impose any appropriate fine(s) for such violation(s), as well as whether the person(s) failed to restore or pay fines according to the procedures set forth in this chapter.~~ Should the violator(s) want to may administratively appeal the notice of civil violation, then in which case the hearing on the notice of civil violation shall be held in accordance with Title 1.12.050 KMC and the hearing examiner shall determine whether violation(s) occurred and, if so, then the hearing examiner may impose any appropriate fine(s) for such violation(s), as well as require restoration or fee(s) in lieu of restoration. (Ord. 4525 § 1, 2016; Ord. 4451 § 7, 2014; Ord. 4280 § 1 (part), 2011)

KIRKLAND MUNICIPAL CODE

Title 7.02.260 Suspension or revocation of license—Criteria.

The director may suspend or revoke a business license or permit when the licensee, officer or partner thereof, or another person with a legal interest in the license:

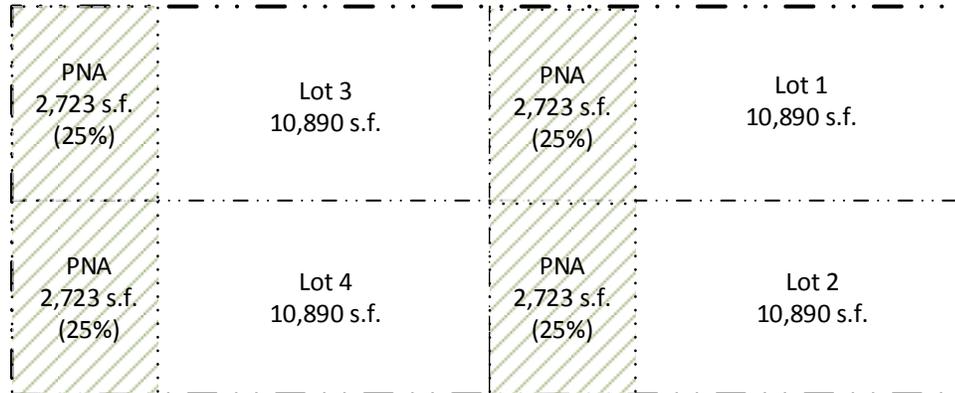
- (1) Knowingly With actual or constructive knowledge, causes, aids, abets, or conspires with another to cause any person to violate any of the laws of this state or the city which may affect or relate to the licensed business;
- (2) Has obtained a license or permit by fraud, misrepresentation, concealment, or through inadvertence or mistake;

- (3) Is convicted of, forfeits bond upon, or pleads guilty to any offenses related to the operation of the licensed business;
- (4) Makes a misrepresentation or fails to disclose a material fact to the city related to any of the obligations set forth in this chapter;
- (5) Violates any building, life or public safety, fire or health regulation on the premises in which the business is located after receiving warning from the city to refrain from such violations;
- (6) Is in violation of a zoning or building code or other material regulation of the city, including the responsibility to exercise best efforts to help ensure conflicts between short-term renters and neighbors are avoided as set forth in Section [7.02.300](#)(3); or
- (7) Is indebted or obligated to the city for past due fees or taxes, excluding special assessments such as LID assessments. (Ord. 4607 § 6, 2017; Ord. 3884 § 2 (part), 2003)

One Acre Development Scenarios

RSA 4 Summary:
 Avg. Lot Size = 10,890 s.f.
 Min. Lot Size = 7,600 s.f.

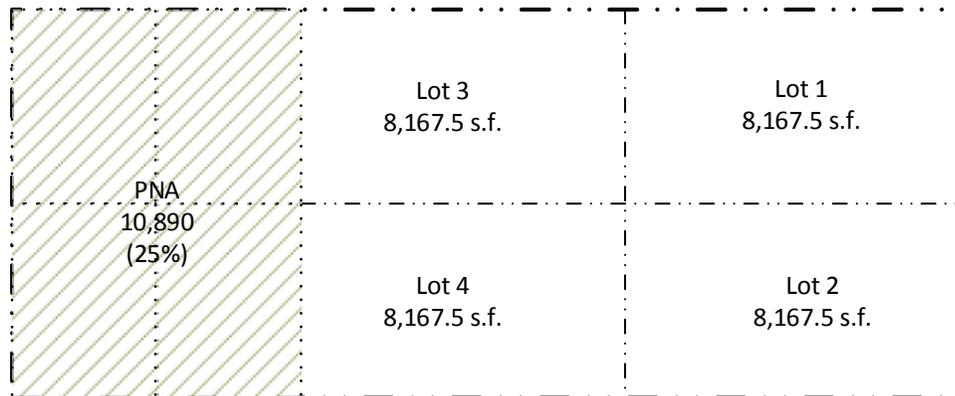
1. PNA – lot by lot



FAR:
 5,445 s.f. @ 50%

Lot Coverage:
 3,489 s.f. @ 32%*

2. PNA - consolidated



FAR:
 4,084 s.f. @ 50%

Lot Coverage:
 3,067 s.f. @ 38%*

Proportionate increase:
 FAR to 66.7%
 Lot Coverage to 42.7%

*HPO Lot Coverage Table (KZC 70.15)

Summary Table:

Lot Size	Maximum Lot Coverage
Less than 6,500 sq. ft.	2,600 sq. ft.
6,501 sq. ft. to 9,000 sq. ft.	2,600 sq. ft. plus 28% of the lot area over 6,500 sq. ft.
9,001 sq. ft. or greater	3,300 sq. ft. plus 10% of the lot area over 9,000 sq. ft.
Developed, cleared or altered lots	New impervious limited to 5% of the total lot area, but not to exceed 750 sq. ft.



City of Kirkland Planning and Community Development Department

February 2018

The purpose of the Holmes Point Overlay code revision is to support the policy direction and intent established in the new Finn Hill Neighborhood Plan, to address issues and challenges that have risen since HPO adoption and to integrate the code in a manner that is both effective and practical to use.

This summary paper outlines staff analysis of tree density credits to tree canopy cover.

Preserve tree canopy: a key policy direction

One important aspect of the Finn Hill Neighborhood Plan is retaining its woodland character. To that end, municipalities use urban tree canopy (UTC), a metric that quantifies tree cover as a tool for goal-setting and establishing tree protection codes. Tree canopy is the outline of leaf surface seen in aerial imagery, typically expressed in relation to other land cover.

Prior to annexation, Kirkland's 2002 canopy analysis indicated a 32% tree canopy cover. In 2010, Kirkland's 36% canopy cover showed effective tree codes had contributed towards increasing canopy cover. Citywide canopy cover became 40% with annexation due to the larger single-family properties and parks with higher canopy percentages¹. Excluding parks, analysis indicates about 60% canopy cover within the HPO boundary. Taking a 'no net loss' approach, the Finn Hill Neighborhood Plan establishes a 60% canopy goal within the HPO to retain community character.

How do tree credits relate to canopy cover over time?

Kirkland's tree code uses a credit system for tree retention and replanting requirements. It's based on the premise that credits, defined by trunk diameter, are a general indicator of tree size, which translates (albeit indirectly) to canopy cover over time. Credits are straightforward for permit applicants, planners and code enforcement to use; which is why other cities such as Olympia, Vancouver, WA, Issaquah, Medina, Kenmore, and Woodinville use tree credits. Like Kirkland, other cities monitor canopy cover and adjust their tree codes to address trends in canopy cover.

During the Holmes Point Overlay code revision, citizens asked staff to show how a credit system translates into tree canopy. Staff started with research findings correlating trunk growth to canopy cover over time. Since a multitude of variables affect canopy cover: enormous differences in tree growth rates, species size and growing conditions, staff applied a rule of averages for the exercise to avoid skewing outcomes. A red maple (*Acer rubrum*) was chosen because

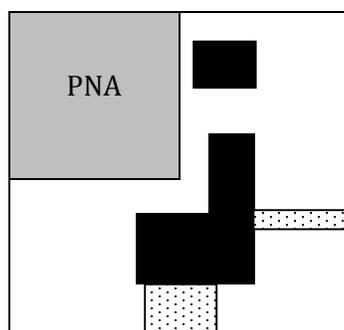
- Data on red maples is typically included in research findings
- It is moderately-sized at maturity (an "average" sized tree, relatively speaking)
- It has an average growth rate



ATTACHMENT 6

Note that a sapling or 2” caliper tree is the equivalent of one credit according to Kirkland’s tree code. Based on i-Tree data, red maples develop a 10.5” diameter trunk over 20 years’ time.² Soil volume research correlates an 11” trunk diameter at breast height (DBH) tree with an estimated 450 square foot canopy coverage³, while Virginia Tech research shows red maple canopy in urban settings range from 177 to 314 square feet in 20 years.⁴ So, an “average tree” has an estimated 295 square foot canopy cover over 20 years.

Staff used average canopy growth estimates to a hypothetical empty one-acre lot (43,560 square feet). In the HPO, 25% of the lot must be designated as a Protected Natural Area (PNA). That means on a 1 acre lot, a 10,890 square foot PNA is required. The remaining area outside the PNA equates to 32,670 square feet.



Per code, each area has a different tree density credit requirement:

- 150 tree credits per acre are required in the PNA
- 30 credits per acre are required on the rest of the lot, outside the PNA

The minimum size of a required replacement tree in Kirkland is a 2” caliper deciduous tree, which is equal to one tree credit. Tree density credits requirements for a 1 acre lot in the HPO are calculated in this manner:

- PNA $(10,890/43,560) \times 150 = 25\% \times 150 = 37.5$, which rounds up to 38 tree credits.
- Non-PNA $(32,670/43,560) \times 30 = 75\% \times 30 = 22.5$, which round up to 23 tree credits.

Using 295 square feet of tree canopy cover growth per every credit (one 2” caliper tree) over 20 years, a 1 acre lot in the HPO would be expected to provide:

- 100% canopy coverage in the PNA $(295 \times 38 = 11,210/10,890)$
- 21% canopy coverage in the non-PNA $(295 \times 23 = 6,762/32,670)$
- 42% canopy cover on the entire lot $(.25 \text{ acre PNA} \times 103\% \text{ canopy cover} + .75 \text{ acre non-PNA} \times 21\% \text{ canopy cover} = 41.5 \text{ or } 42\% \text{ rounded up})$



So, in this exercise in allometry⁵, Kirkland’s tree density credit system equates to an overall 42% canopy cover on a one acre lot in the HPO over 20 years, which then raises the question:

What are fair and equitable tree codes towards a canopy goal?

Even with 60% overall canopy cover in the HPO, of the 1,200 parcels in the Holmes Point Overlay area, half have less than 50% tree canopy cover; the majority are under ½ acre in size.⁶ Over 200 parcels have less than 25% canopy cover. The wide range of existing canopy cover on parcels raises equity issues when considering fair and effective codes. Some citizens suggest establishing canopy minimums for retention requirements on a lot-by-lot basis as development occurs. Regardless of methodology, increasing tree retention requirements for lots under development target fewer properties in the HPO since downzoning. An objection to basing codes on canopy cover ignores a more qualitative approach towards a healthy, sustainable urban forest. Other measures, or “tools in the toolbox” could be considered as effective means to maintain tree canopy in the HPO such as

- Using current canopy data as a basis for changes to code requirements
- Develop incentives, change procedures, and use opportunities for education and outreach
- Efforts to increase canopy on properties not under development

These and other issues are some of the challenges with the Holmes Point Overlay code revision project currently underway.

References

- ¹ City of Kirkland, 2011. Urban Tree Canopy Assessment Report
²i-Tree Streets’ data for tree species growth in the Pacific Northwest
³James Urban, *Up by Roots*, page 205; research on adequate soil volumes per tree size
⁴ Virginia Tech online tool, [Tree Canopy Spread & Urban Landscapes](#)
⁵Wikipedia entry on Tree allometry: https://en.wikipedia.org/wiki/Tree_allometry
⁶Kirkland IT-GIS Department analysis, October 2017

Additional Resources

For additional information, see the following:

- City of Kirkland Comprehensive Plan, 2015 Revision
- Kirkland Zoning Code Chapter 95, Trees and Landscaping
- Kirkland Zoning Code Chapter 70, Holmes Point Overlay Zone
- Kirkland Urban Forestry Strategic Management Plan

