



CITY OF KIRKLAND
Planning and Building Department
123 5th Avenue, Kirkland, WA 98033
425-587-3600

MEMORANDUM

To: Houghton Community Council

From: Jeremy McMahan, Deputy Director, Planning and Building

Date: January 18, 2022

Subject: Update on City Council Review of KZC 95 (Tree Code) – File No. CAM18-00408

Recommendation

Receive a status report on the KZC 95 Update Project. Staff will provide a summary overview of City Council's current working draft at the January 24 meeting.

Background

Following an extensive review process, the Planning Commission (PC) and Houghton Community Council (HCC) delivered their recommendations on updates to KZC 95 to City Council on January 20, 2020. The recommendation of the HCC is included as Attachment 1.

Following three initial City Council meetings in the first part of 2020, the project was delayed due to state and City priorities around the COVID outbreak. The Council resumed their review in May of 2021. The project experienced additional delays due to workload and due to the resignation of the City's Urban Forester who was spearheading the staff support to the project. Specific Council direction on the draft code resumed in earnest in November of 2021 and the Council has proceeded with directing staff on desired changes over the course of three meetings to date. Council's intent is to complete the process in February.

At the [November 16, 2021](#) and [January 4, 2022](#) City Council meetings, staff presented Parts 1 and 2 of the proposed draft code. Minimal comments were received from Council during review of the Part 1 amendments, which consisted of either no impact or minor impact amendments and 18 total code sections. More extensive comments were received during review of the Part 2 amendments, which focused on two code sections: KZC 95.23 – Landmark Tree – Mitigation Standards and KZC 95.25 – Private Property - Tree Removal, Not Associated with Development Activity.

Attachment 3 includes a status summary matrix illustrating Council direction on each section of the draft code from the November 16 and January 4 meetings. Because the January 18 meeting will occur after the date of this memo, staff will provide updates to the HCC at the January 24 HCC meeting.

Additional background information on the evolution of KZC 95 can be found through the links below:

Date/Link		Meeting Topic
June 28, 2018	PC	Understanding KZC 95, Tree Canopy Cover 101
July 12, 2018	PC	Preliminary project scope
Aug 9, 2018	PC	2018 field study findings on KZC 95 efficacy
Aug 27, 2018	HCC	Briefing on Planning Commission (PC) progress
Sept 13, 2018	PC	Preliminary code changes with low-level policy impacts
Sept 27, 2018	PC	Preliminary code changes with moderate policy impacts
Nov 8, 2018(A) Nov 8, 2018(B)	PC	A) Review 2018 Tree Canopy Assessment B) Review 1st draft KZC 95 , options, initial public feedback
Nov 20, 2018	CC	Briefing on PC progress, 1st draft KZC 95, staff recommendations, options, emerging issues
Nov 26, 2018	PC-HCC	Joint review of major code amendments, preliminary public feedback. Discuss canopy cover vs. tree density credits.
Feb 14, 2019	PC	Review stakeholder position on remaining code issues, review 2nd draft KZC 95 , consider staff recommendations and other city tree codes
Feb 25, 2019	HCC	Briefing on PC progress, status of code amendments
Apr 25, 2019	PC-HCC	Joint briefing on status of code amendments
May 23, 2019	PC	Review stakeholder's 2-tiered approach and resulting effects of proposed codes, study tree trunk diameter (DBH) data, provide direction on code
May 30, 2019	HCC	Briefing on May 23 PC meeting topics
July 11, 2019	PC	Review 3rd draft KZC 95 , 6 remaining key code issues, stakeholder feedback and other city tree codes, provide direction on code
Jul 22, 2019	HCC	Review 4th draft KZC 95 and the 6 remaining key code issues using the HCC's Guiding Principles, consider options, prepare for hearing
Oct 1, 2019	CC-PC	Review staff-stakeholder process and key code changes prior to hearing
Nov 5, 2019	PC-HCC	Public hearing, initial joint PC-HCC deliberations
Jan 21, 2020	CC	Review PC/HCC recommendations and focus on key issues of code amendments
Feb 4, 2020	CC	Review PC/HCC recommendations and discuss KZC 95.23
Feb 18, 2020	CC	Review PC/HCC recommendations and provide direction for staff for continued code amendments
May 18, 2021	CC	Discuss general policy direction and desired outcomes of the code amendment project
July 6, 2021	CC	Study session to review high-level policy questions to guide code amendments
Nov 16, 2021	CC	Phase 1: Resume City Council review of no impact/minor impact code amendments and confirm Council position on high-level policy to guide code amendments

Jan 4, 2022	CC	Phase 2: Resume City Council review of moderate/major impact code amendments, including review of KZC 95.23 – Landmark Tree Mitigation and 95.25 – Private Property - Tree Removals, Not Associated with Development Activity
January 18, 2022	CC	Phase 3: Resume City Resume City Council review of moderate/major impact code amendments, including review of KZC 95.30 – Tree Retention Associated with Development Activity

Attachments

1. December 4, 2019 HCC Recommendation to Planning Commission
2. Draft City Council Working Draft of KZC 95 (current to 1/18/2022)
3. Summary of City Council Direction Received Through January 4, 2022

cc: Katie Hogan

File Number CAM18-00408



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MEMORANDUM

To: Kirkland Planning Commission

From: Houghton Community Council

Date: December 4, 2019

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

INTRODUCTION

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

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

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

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

The HCC finds that, with the recommended changes noted below, the proposed amendments are generally consistent with these principles.

KEY ISSUES

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

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

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

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

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

RECOMMENDATION

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

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

1. 95.10 Definitions:

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

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

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

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

95.23.5a- Do not prohibit landmark tree removal

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

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

3. 95.30 Tree Retention Associated with Development Activity

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

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

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

95.30.7 – Clarify that the intent is not to decrease the allowed FAR and

Maximum Lot Coverage for clustered short plats and subdivisions

4. 95.32 Tree and Soil Protection During Development Activity

95.32.1–Delete this section because as it is already stated in 95.23.7

95.32.3.b – Recommend that staff develop pre-approved plans as handouts to show applicants the standard for protective signs

95.32.4.a – Replace “light soils” with a more specific standard for fill over a CRZ

5. 95.34 Tree Planting Requirements Related to Development Activity

95.34.2 – Clarify that tree credits for retaining existing native conifers may exceed the cap of 11 credits due to the 1.5 times credit multiplier

95.34.2 – Recommend that staff keep a list of other non-native large conifer species that will receive the 1.5 credit to add predictability

Table 95.34– Replace the term “Significant Trees” in the Title with the current term “Regulated Trees”. Add “and above” to the 30” DBH category for clarification

95.34.5.b – For off-site planting of required tree credits, require a 5-year preservation agreement rather than preservation “in perpetuity”

6. 95.44 Internal Parking Lot Landscaping Requirements

95.44.1 – Develop more robust parking lot landscaping requirements. This will accomplish the following objectives:

- Ensure that trees in parking lots will have more space to mature than the current small landscape islands
- Trees will have a more meaningful contribution to reducing the heat island effect from large parking lots
- Large commercial and multifamily parking lots will contribute more meaningfully to the City’s canopy goals

The Community Council would ask the Planning Commission to consider requirements and incentives, potentially including parking reductions, to achieve these objectives.

7. 95.50 Installation Standards for Required Parking

95.50.12 – Clarify to read as follows: “Final Inspections – These requirements shall be completed prior to final inspection.”

CONCLUSION

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

KEY:

Plain text not highlighted = current code *without changes*

Bold text not highlighted = indicates a change to the existing code

*Note: **Bold text** that is underlined = section titles that are normally bolded in KZC 95 but that were revised

[DRAFT] KIRKLAND ZONING CODE CHAPTER 95 – TREE MANAGEMENT AND REQUIRED LANDSCAPING

Sections:

- 95.05 Purpose and Intent
- 95.10 Definitions
- 95.15 **Exempt Tree Removal Activities**
- 95.20 **Public Tree – Pruning and Removal**
- 95.21 **Private Property - Tree Pruning**
- 95.23 **Landmark Trees – Mitigation Requirements**
- 95.25 Private Property - Tree Removal, Not Associated with Development Activity
- 95.30 Tree Retention Associated with Development Activity
- 95.32 Tree and Soil Protection during Development Activity
- 95.34 Tree Replacement Standards Related to Development Activity
- 95.40 Required Landscaping **Based on Zoning District**
- 95.41 Supplemental Plantings
- 95.42 **Land Use Buffer Requirements**
- 95.43 Outdoor Use, Activity, and Storage
- 95.44 Internal Parking Lot Landscaping Requirements
- 95.45 Perimeter Landscape Buffering for Driving and Parking Areas
- 95.46 Modifications to **Required Landscaping and Buffer Standards**
- 95.47 Nonconforming Landscaping and Buffers
- 95.50 Installation Standards for Required Plantings
- 95.51 Tree and Landscape Maintenance Requirements
- 95.52 Prohibited Vegetation
- 95.55 Enforcement and Penalties
- 95.57 City Forestry Account

95.05 Purpose and Intent

1. Trees and other vegetation are important elements of the physical environment. They are integral to Kirkland's community character and protect public health, safety and general welfare. Protecting, enhancing, and maintaining healthy trees and vegetation are key community values. Comprehensive Plan Policy NE-3.1 describes working towards achieving **a healthy, resilient urban forest with a City-wide tree canopy coverage of at least 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 **regulated** 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 the **benefits** 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 **at least 40 percent** City-wide over time;
- e. Encourage tree retention efforts by providing flexibility with respect to certain other development requirements;
- f. **Balance tree protection with other major citywide interests;**
- g. Implement the goals and objectives of the City's Comprehensive Plan **and Sustainability Master Plan**;
- h. Implement the goals and objectives of the State Environmental Policy Act (SEPA); and
- i. Manage trees and other vegetation in a manner consistent with the City's **Urban Forest Strategic Management Plan**; **industry standards**; **and best management practices established by the International Society of Arboriculture (ISA) and the American National Standards Institute (ANSI) for Management of Trees During Site Planning, Development and Construction, Pruning, and Tree Risk Assessment**.
- j. Preserve and protect street trees, trees in public parks and trees on other City property.

95.10 Definitions

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

- 1. **Arborist Report** – written review and recommendations, submitted by a Qualified Professional Arborist for the purpose of meeting the requirements set forth in this Chapter.
- 2. Caliper – The **industry** standard for trunk measurement of nursery stock, **applicable to required replacement trees**. Caliper shall be measured six (6) inches above the ground.
- 3. Critical Root Zone (CRZ) –The area **encircling** the trunk of a tree equal to one (1) foot radius for every inch of DBH **Example: a 24-inch DBH tree has a 24-foot radius CRZ measured from the face of the trunk**.
- 4. Crown – The area of a tree containing leaf- or needle-bearing branches.
- 5. Diameter at Breast Height (DBH) – The diameter or thickness of a tree trunk measured at 4.5 feet **above average grade**. **For trees with multiple trunks at 4.5 feet height, only trunks 3" DBH or greater shall be included. Where a tree splits into several trunks close to ground level, the DBH for the tree is the square root of the sum of the DBH for each individual stem squared (example with 3 trunks: DBH = square root [(stem1)² +**

$(\text{stem2})^2 + (\text{stem3})^2$). If a tree has been removed and only the stump remains that is below 4.5 feet tall, the size of the tree shall be the diameter of the top of the stump.

6. **Dripline** – The distance from the tree trunk that is equal to the furthest extent of the tree's crown. **For trees with asymmetrical crowns, the dripline shall be measured in all four cardinal directions (North, South, East, West).**

7. **Impact** – A condition or activity that **adversely** affects **any** part of a tree, including, **but not limited to**, the trunk, branches, or **CRZ**.

8. **Inner Critical Root Zone (Inner CRZ)** – an area half the distance of the CRZ that, when impacted, may compromise the structural integrity of the tree. **Example: a 24-inch DBH tree has a 12-foot radius Inner Critical Root Zone measured from the face of the trunk.**

9. **Prohibited Plant List** – A list of trees and vegetation published by the Planning and Building Department that are invasive, noxious, or inappropriate species for retention or replacement trees.

10. **Qualified Professional Arborist** – An individual with relevant education and training in arboriculture or urban forestry, having two (2) or more of the following credentials:

- International Society of Arboriculture (ISA) Certified Arborist;
- Tree Risk Assessor Qualification (TRAQ) as established by the ISA (or equivalent);
- American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
- Society of American Foresters (SAF) Certified Forester for Forest Management Plans;
- **Board Certified Master Arborist as established by the ISA.**

A Qualified Professional Arborist must have the TRAQ or equivalent qualification for the submittal of Tree Risk Assessment reports related to hazard tree removal. For tree retention associated with a development permit, a Qualified Professional **Arborist** 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 **ascertaining** tree survival after construction. A Qualified Professional **Arborist** must also be able to prescribe appropriate measures for the preservation of trees during land development.

11. **Pruning** – the practice of selectively removing branches (or roots) from a tree or other plant, using approved practices, to achieve a specified objective.

12. **Significantly Wooded Site** – **for a Forest Stewardship Plan**; a subject property that has numerous trees with crowns that, **when outlined in aerial imagery**, cover at least 40 percent of the **total area of the property**.

13. **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.

14. **Topping** – Indiscriminate cuts made between branches that leave a stub, used to reduce the height or crown size of an established tree. **Topping is not an acceptable practice pursuant to best management practices in the ANSI A300 Pruning Standards.**

15. **Tree Protection Zone (TPZ)** – A defined area within and including an outer boundary, as determined by a Qualified Professional Arborist, in which certain activities are prohibited or restricted to prevent or minimize potential impacts from construction or development, applicable to individual trees or groups of tree trunks, roots and soil. TPZ is measured in feet from the face of the trunk and may be determined using Critical Root Zone, dripline, exploratory root excavations or other methodologies. The TPZ is variable depending on species, age and health of the tree, soil conditions and proposed construction. TPZ denotes the location of tree protection fencing.

16. **Tree Removal** – The removal of a tree, through either direct or indirect actions, including but not limited to: (1) clearing, damaging, **girdling**, or poisoning, **in each case**, resulting in an unhealthy or dead tree; (2) **topping that results in the removal of more than 25% of the live crown** or (3) damage to roots or trunk that is likely to destroy the tree's structural integrity.

17. **Trees** – A tree or a group of trees may fall under one (1) of the following definitions for purposes of this chapter:

- a. **Grove** – A group of three (3) or more **viable regulated** trees with overlapping or touching crowns **that are located on a proposed development site; one of which is located in a required yard.**
- b. **Hazard Tree** – **A tree/tree part assessed by a Qualified Professional Arborist as having an Extreme or High Overall Risk Rating using the ISA Tree Risk Assessment Qualification (TRAQ) method in its most current form, as applied in KZC 95.25 that meets all the following criteria:**

- 1) A tree with a combination of structural defects and/or disease which makes it subject to a high probability of failure;
- 2) Is in proximity to moderate to high frequency-occupied targets, persons or property that can be damaged by tree failure; and
- 3) The hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices nor can the target be removed.

c. **Hedge Trees** – **Five (5) or more trees of the same species with overlapping or touching crowns that are in fair or poor condition; have been planted and maintained in a linear formation at maximum eight (8) foot spacing, typically to function as a screen or barrier.**

d. **Landmark Tree** – **a regulated tree with a minimum 26-inch DBH.**

e. **Nuisance Tree** – A tree that meets either of the following criteria:

- 1) Is causing obvious physical damage to private or public structures, including, but not limited to a: sidewalk, curb, road, driveway, parking lot, building foundation, or roof; or
- 2) Has sustained damage from past maintenance practices **or from naturally occurring events such as wind, ice or snow-loading.**

The problems associated with a nuisance tree must be such that they cannot be corrected by reasonable practices, including, but not limited to: pruning of the crown or roots of the tree, bracing, cabling to reconstruct a healthy crown.

f. **Public Tree** – A tree located in parks, within maintained or unmaintained public rights-of-way, in a stormwater facility, or on other property owned by the City.

g. **Regulated Tree** – A tree that is at least six (6) inches DBH **that is not listed on the Prohibited Plant List.**

h. **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:

1) **High** – any of the following trees:

- a. **Grove**
- b. **Landmark Tree**
- c. **A viable tree with any portion of the trunk located in a required yard, land use buffer, and/or common open space**

2) **Moderate** – **A viable tree that is not a High Retention Value Tree**

i. **Street Tree** – A **Public Tree** located within the public right-of-way; provided, that if the trunk of the tree straddles the boundary line of the public right-of-way and the abutting property, it shall be on the abutting property and subject to the provisions of this chapter.

j. Viable Tree – **A regulated tree on proposed development sites that fits the viable criteria in Table 95.30.2 based on the tree condition ratings pursuant to KZC 95.30. A tree that is not viable is also a tree in an area where removal is unavoidable due to the anticipated development activity after having applied the provisions in this Chapter.**

18. Wildlife Snag – The remaining trunk of a tree that is intentionally reduced in height and usually stripped of its branches **with the intent of providing habitat.**

19. Windfirm – A condition of a tree in which it withstands average peak local wind speeds and gusts.

95.15 Exempt Tree Removal Activities

The following activities are exempt from the provisions of this chapter:

1. **Emergency Tree Removal.** Any tree that poses an imminent threat to life or property may be removed. The City must be notified within seven (7) days after the emergency tree removal with evidence of the threat for removing the tree to be considered exempt from this chapter. If the Planning Official determines that the emergency tree removal was not warranted or if the removed tree was required **to be retained or planted pursuant to a development permit, then the removal will be subject to code enforcement, including fines and restoration.** The Planning Official may require that the party obtain a tree removal permit.
2. **Utility Maintenance.** Trees may be removed by the City or utility provider in situations involving interruption of services provided by a utility only if pruning cannot solve utility service problems. Utility maintenance shall conform to a City-approved Utility Vegetation Management Plan.
3. **Commercial Nurseries or Tree Farms.** A nursery or tree farm owner may remove trees that are being grown to be sold as Christmas or landscape trees.

95.20 Public Tree - Pruning and Removal

1. **Public Tree Pruning, including the pruning of Street Trees, shall conform to the following:**
 - a. **Permit Requirements.** Other than City crews, no person, directly or indirectly, shall prune, trim, modify, alter, or damage any Public Tree without first obtaining a Public Tree Pruning Permit as provided in this chapter, unless the activity falls under the Exempt Tree Removal Activities per KZC 95.15 or falls within the maintenance exceptions set forth in subsection (b) of this section.
 - b. **Pruning.** It is the responsibility of the adjacent property owner to maintain Street Trees abutting their property, including watering and mulching. **Maintenance may include minor pruning of up to 1.5-inch diameter branches for sidewalk clearance. A Public Tree Pruning Permit is required to trim, modify, alter, or substantially prune Street Tree branches more than 1.5-inches in diameter.** The City reserves the right to have City or utility crews perform routine pruning and maintenance of Street Trees.
 - c. **Pruning Standards.** The most recent version of the American National Standards Institute (ANSI) A300 Pruning Standards apply, or as outlined in a City-approved Utility Vegetation Management Plan. Tree topping is not allowed. **Pruning which results in the removal of more than 25% of the live crown is not an acceptable pruning practice.**
2. **Public Tree Removal.** Other than City crews and City-authorized contractors, no person, directly or indirectly, shall remove any Public Tree without first obtaining a tree removal permit as provided in this chapter, unless the activity falls under the Tree Removal Exemptions per KZC 95.20. **The City will not authorize any Public Tree removal by any private party unless the tree is determined to be a Hazard Tree or Nuisance Tree pursuant to KZC 95.25.**

95.21 Private Property - Tree Pruning

To ensure that trees function well in their intended landscape, the City of Kirkland promotes the proper care of trees on private property to ensure trees reach their normal life expectancy and contribute optimal benefits to the community. For that reason, tree topping is prohibited and may be considered tree removal per KZC 95.10(14).

A permit is not required to prune trees on private property, however, pruning of the following categories of trees does require prior written approval from the City:

1. Located within Natural Greenbelt Protective Easements and wetlands, streams, or their buffers; or
2. Grove trees preserved pursuant to KZC 95.51(3).

Pruning shall conform to the most recent version of the ANSI A300 Pruning Standards.

95.23 Landmark Trees – Mitigation Requirements

Removal of Landmark Trees results in immediate loss of significant canopy and associated functions and values. Replacement of canopy loss and associated impacts to the City-wide 40 percent canopy goal requires a long-term strategy for replanting large trees in areas where they can successfully reach mature size.

1. No person, directly or indirectly, shall remove any Landmark Tree from public or private property without first meeting the standards as provided in this chapter. In addition to the application requirements established in this chapter, the permit application shall include a Landmark Tree mitigation plan consistent with the standards in this section.
 - a. Landmark Trees on private properties pursuant to KZC 95.25 shall not be removed without first obtaining a tree removal permit as provided in this chapter.
 - b. Landmark Trees associated with a development permit pursuant to KZC 95.30 shall constitute a tree removal permit for purposes of this section.
2. The Planning Official shall review the tree removal permit or the associated development permit for compliance with the applicable retention standards of KZC 95.25 or 95.30.
3. If a Landmark Tree(s) is approved for removal based on compliance with KZC 95.25 and 95.30, the applicant shall install mitigation plantings on the subject property consistent with the following standards:
 - a. **Mitigation ratio.** For each Landmark Tree removed, the applicant shall plant three large species selected from the City's Approved Landmark Tree Mitigation List. Mitigation trees shall be a minimum of 6-feet tall for a conifer or a minimum of 2-inch caliper for a deciduous or broad-leaf evergreen tree at the time of planting.
 - b. **Location of mitigation trees.** Mitigation trees shall be planted in a location on the subject property that will allow the trees to reach mature height and width without significant conflicts with existing or proposed improvements on the subject or adjoining properties.
 - c. **Timing of Plantings and Inspection.** Mitigation trees shall be installed within 12-months of the associated tree removal reviewed pursuant to KZC 95.25, or prior to final inspection of a development permit reviewed pursuant to KZC 95.30. Upon completion of the plantings, the applicant shall schedule an inspection by the Planning Official for consistency with the approved mitigation plan.
 - d. The applicant shall sign a 5-year maintenance agreement, on a form provided by the City and approved by the City Attorney, to maintain the mitigation trees for a period of 5 years from final inspection.

- e. The mitigation tree plantings shall be in addition to tree planting otherwise required pursuant to Kirkland Zoning Code or Kirkland Municipal Code.
4. If a Landmark Tree(s) is obviously dead, dying, and/or hazardous, as evident in a photograph provided to the Planning Official, it will not be subject to a tree removal permit or mitigation requirements.
5. The applicant may elect to not plant mitigation trees on the subject property and pay a fee in lieu of planting. The fee in lieu shall be determined by the City based on the formula outlined in the most recent edition of the Guide for Plant Appraisal, published by the Council of Tree and Landscape Appraisers. The fee in lieu shall be multiplied by the number of required mitigation trees. All fee in lieu payments shall be paid into the City Forestry Account pursuant to KZC 95.57 and shall be used by the City to fund canopy restoration efforts elsewhere in the City.

95.25 Private Property - Tree Removal, Not Associated with Development Activity

Tree and vegetation removal in urban areas has resulted in the loss of beneficial functions provided by trees to the public. The majority of tree canopy within the City of Kirkland is on private property. The purpose of this section is to establish a process and standards to slow the loss of tree canopy on private property resulting from tree removal, contributing towards the City's policy goals for a healthy, sustainable urban forest with at least 40 percent tree canopy cover. To slow the loss of canopy cover, the City of Kirkland allows the limited removal of regulated trees on private property.

1. Tree Removal Allowances. Any private property owner of developed property may remove up to a specified number of regulated trees based on property size shown in Table 95.25.1 within a 12-month period, without having to apply for a tree removal permit; provided that:
 - a. The tree is not a Landmark Tree pursuant to KZC 95.10(17)(d) and 95.23;
 - b. The tree removal does not result in less than the minimum number of regulated trees to remain on the subject property shown in Table 95.25.1. Trees that qualify as hazard or nuisance trees may be permitted for removal pursuant to subsection (6) of this section with approval of a tree removal permit and tree replacements based on the size of the removed trees shown in Table 95.25.2 below;
 - c. There is no active application for development activity for the subject property. Development activity within 12- or 24-months following tree removal may be subject to the limitations of subsection (4) of this section;
 - d. All of the additional standards for tree removal and tree removal permits as described in subsections (3) through (9) of this section are met.

Table 95.25.1 Regulated Tree Removal Allowances, No Permit Required

Property Size	Maximum Allowance for Tree Removals per 12 Months	Minimum Number of Regulated Trees to Remain on Subject Property
Up to 10,000 sq. ft.	2	2
10,001 to 20,000 sq. ft.	3	3
20,001 sq. ft. or greater	4	4

Table 95.25.2 Tree Replacement Standards for Property Owner Removal of the Last Remaining Trees

Diameter of Removed Tree	Number of Replacement Trees Required
6 to 15 inches DBH	1
16 to 26 inches DBH	2
26 inches DBH or greater	3 (see KZC 95.23)

For example: A property owner of a 15,000 square foot lot with three (3) existing trees would like to remove a 25-inch DBH maple tree due to its meeting the hazard tree criteria. Because the maple tree is one of the minimum number of trees required on that size property, tree replacements are required. Because of the size of the removed tree, two (2) replacement trees would be required.

2. Tree Removal Allowance Notification Form. The Planning and Building Department shall make available a tree removal notification form. The tree removal notification form may be used by property owners to request review by the Planning and Building Department for compliance with applicable City regulations.
3. Tree Removal Permit Required. No person, directly or indirectly, shall remove any regulated tree from private property without first obtaining a tree removal permit as provided in this chapter, unless the activity falls under the exempted tree removal activities per KZC 95.15 or is within the tree removal allowances per subsection one (1) of this section. If any of the below conditions apply, trees must qualify as hazard or nuisance to be permitted for removal:

A Tree Removal Permit is required if:

- a. The property owner is requesting to remove trees located within:
 - 1) A public park or adjacent City Right-of-Way pursuant to KZC 95.20;
 - 2) Wetlands, streams and associated buffers. See Chapter 90 KZC for additional permit requirements;
 - 3) High landslide susceptibility areas. See Chapter 85 KZC for additional permit requirements;
 - 4) Properties in the Holmes Point Overlay Zone. See Chapter 70 KZC for additional permit requirements; or
 - 5) Shoreline setbacks. See Chapter 83 KZC for additional permit requirements.
- b. The trees were required to be retained, planted or preserved as a grove as a condition of previous development activity;
- c. The trees were required to be retained or planted pursuant to KZC 95.40 through 95.50
- d. The trees are hedge trees and removals are proposed in excess of the Maximum Allowance for Tree Removals per 12 Months established in Table 95.25.1;
- e. The trees are protected under a voluntary Tree Preservation Covenant; and

Prior to approving a tree removal permit, the Planning Official shall find that all of the additional standards for tree removal and tree removal permits as described in sections (4) through (9) are met.

4. Tree Removal on Private Property Prior to Development Permit Submittal. With the exception of approved removals of hazard trees or nuisance trees, the City will not accept any development permit application with a pending tree removal permit or tree removal notification. In addition, the City will not accept a development permit for detached dwelling units, cottages, carriage units, two/three-unit homes short

plats or subdivisions for a property for a period of 12-months following the most recent removal of a regulated tree or a period of 24-months following the most recent removal of a Landmark Tree.

5. Removal of Hazard or Nuisance Trees. Removal of hazard or nuisance trees, including hedge trees, does not count toward the tree removal allowances if the nuisance or hazard is evident in a photograph or supported by a Tree Risk Assessment report prepared by a Qualified Professional Arborist and approved by the City. Tree Risk Assessment reports shall follow the method for developing a tree risk rating set forth in the most current edition of the ISA Tree Risk Assessment (TRAQ) Manual and include the following:

- a. Explanation of how the tree or tree parts meet the definition of a hazard pursuant to KZC 95.10(15)(b); and
- b. Overall tree risk rating with correlating mitigation measures as follows:
 - 1) If a potential target does not exist, applicants should consider routine pruning and maintenance to abate the tree issue;
 - 2) If a tree/tree part is found to have a Low or Moderate Overall Risk Rating, the Planning Official may approve mitigation measures to reduce the risk; or
 - 3) If a tree/tree part is found to have a High or Extreme Overall Risk Rating and mitigation of the risk through pruning or moving potential targets is not feasible, the Planning Official shall approve the removal of the tree as a hazard tree.

The City may order diseased trees removed from private property as hazard trees to prevent the spread of a disease/pest that would cause catastrophic decline in tree health and failure.

6. Tree Removal Permit Application Form. The City shall provide a tree removal permit application form. Property owners required by this chapter to obtain a tree removal permit shall submit a completed permit application for City review for compliance with applicable City regulations. The tree removal permit application shall require, at a minimum, submittal of the following:

- a. A site plan, map, or aerial photograph showing the approximate location of all regulated trees on the subject property, their DBH, and their species, along with the location of structures, driveways, access ways, and easements on the subject property. Property owners requesting to remove adjacent street trees must indicate the location of the hazard or nuisance tree in the right-of-way.
- b. For required replacement trees, a planting plan showing the location, size, and species of each replacement tree to be planted on the subject property, in accordance with the tree replacement requirements set forth in subsection (7) of this section.

7. Tree Replacement Requirements. To mitigate the consequences of tree removal unrelated to development activity, for tree removal permits the City requires the planting of replacement trees in suitable locations appropriate to the subject property. Replacement trees shall be a minimum 6-foot tall conifer or a minimum 2-inch caliper deciduous or broad-leaf evergreen tree. Trees planted to form a clipped or sheared hedge or Thuja/Arborvitae (or other slow-growing conifers as listed by the Planning Department) shall not count towards tree replacement requirements.

- a. Tree removal and replacement standards for tree removal permits pursuant to subsection (3) of this section are subject to the following:

Table 95.25.3 Tree Replacement Standards

Location of Tree Removal	Tree Replacement Standards
Public trees in parks or City Right-of-Way per KZC 95.21(2)	Minimum 1:1 tree replacement
Significantly wooded properties 25,000 sq. ft. or greater	Determined in approved Forest Stewardship Plan
Hedge Trees on Private Property	1:1 tree replacement ¹
Holmes Point Overlay Zone - species selection and timing of installation shall be approved by the Planning Official	1:1 tree replacement with native trees. See KZC Chapter 70
Shoreline setbacks	See KZC Chapter 83 for tree replacement standards
Streams, wetlands and associated buffers – the Planning Official shall determine the required number of replacement trees	1:1 to 3:1 tree replacement with native trees. See KZC Chapter 90
Required landscaping pursuant to KZC 95.40 through 95.50	Replant to the required landscaping standards of KZC 95.40 through 95.50

Notes:

1. Planning Official may allow reduced replanting requirements for hedge trees based on available space to provide a sustainable planting

8. Tree Removal Permit Decision and Appeals.

- a. The City shall review each tree removal permit application for consistency with the applicable regulations and other standards adopted by reference. Tree removal permits shall be reviewed within 21 calendar days and either approve, approve with conditions or modifications, deny, or request additional information. The Planning Official shall review required mitigation trees and has the discretion to modify or waive applicable standards when the subject property has significant canopy that precludes successful mitigation planting or similar unique conditions. Any decision to deny the application shall be in writing along with the reasons for the denial and the appeal process. The decision of the Planning Official is appealable using the applicable appeal provisions of Chapter 145 KZC.
- b. Time Limit. Tree removal by felling shall be completed within one (1) year from the date of permit approval or the permit is void. Approved tree removals shall not be combined or accumulated.

9. Forest Stewardship Plan. To support sustainable, stewardship-focused forest management of developed, significantly wooded sites that are at least 25,000 square feet in size, a Forest Stewardship Plan may be submitted where tree removal exceeds the allowances in KZC 95.25. The purpose of a forest stewardship plan is to manage objectives in order to improve the long-term health and condition of existing trees and vegetation. Applicants for a Forest Stewardship Plan are encouraged to seek the technical assistance, incentives and resources available through local and state agencies that promote forestland best management practices. Property owners shall submit a completed permit application for City review for compliance with applicable City regulations.

- a. A Forest Stewardship Plan shall be developed by a Qualified Professional Arborist and include the following:
 - 1) A site plan depicting the location of all existing regulated trees with a numbering system of the trees (with corresponding tags on trees in the field). A survey identifying tree locations is not required. The site plan or additional documentation shall include:
 - a) The DBH, species, and condition of each regulated tree; and
 - b) Identification of trees proposed to be removed, the reasons for their removal and a description of low impact removal techniques pursuant to subsection (b)(4) of this section.
 - 2) A reforestation plan that addresses the installation and establishment of trees and vegetation, including tree location, size, species; and

- 3) **A prescribed maintenance plan that ensures perpetuity of the wooded areas, with the sequence of tree removals and reforestation activities specified over a minimum five (5) year timeline.**
- b. The following Forest **Stewardship** Plan standards shall apply:
 - 1) Trees to remain should be dominant or co-dominant in the stand, healthy and windfirm;
 - 2) **Unless otherwise permitted by this chapter, there shall be no removal of:**
 - a) **Landmark Trees or preserved groves;**
 - b) **Trees located in critical areas and associated buffers;**
 - c) **Trees located in high landslide susceptibility areas; and**
 - d) **Trees that would cause trees on adjacent properties to become hazardous.**
 - 3) The size of planted trees for reforestation shall be a minimum of **six (6) feet tall for a conifer and 2-inch caliper for deciduous or broad-leaf evergreen tree, unless approved otherwise by the City;**
 - 4) Logging operations shall be conducted 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;
 - 5) Removal of debris shall be done pursuant to Kirkland Fire Department standards; and
 - 6) **The Planning Official may require a performance security pursuant to KZC 175 in order to ensure that the reforestation requirements of the approved Forest Stewardship Plan are met.**

95.30 Tree Retention Associated with Development Activity

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

This section includes provisions that establish tree retention priorities, incentives, and variations to development standards in order to retain viable trees on development sites. Applicants for a development **permit** are encouraged to confer with City staff as early in the design process as possible so that the applicable tree retention and planting **principles** found in this chapter can be incorporated into the design of the subject property. The Planning Official and the applicant shall work in good faith to find reasonable solutions.

1. Tree Retention Plan **Applicability.** A Tree Retention Plan is required for any proposed development of the subject property requiring approval through a building permit; land surface modification permit; demolition permit; and/or Design Review, Process I, IIA, or IIB, described in Chapters 142, 145, 150 and 152 KZC, respectively, unless:
 - a. **Otherwise exempted pursuant to KZC 95.15**
 - b. The permit is for additions to and remodels of existing improvements in which the total square footage of the proposed improvements is less than 50 percent of the total square footage of the existing footprint on the subject property and where **no development activity is proposed within the CRZ of regulated trees.**
2. Tree Retention Plan Review Authority. The authority to make decisions under this chapter resides with the Planning Official **for building permit; land surface modification permit; demolition permit; and/or with the applicable review authority for Design Review, Process I, IIA, or IIB, described in Chapters 142, 145, 150 and 152 KZC. To retain regulated trees, the City shall review for consistency with the provisions set forth in this chapter.**

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 **viable High Retention Value Trees, including Landmark Trees and Groves, and/or trees with a Moderate Retention Value** based on KZC 95.10, Definitions, for application towards the regulations in this chapter.

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

3. Tree Retention Plan **Requirements.** Tree Retention Plans shall contain the following information, unless waived by the Planning Official:
 - a. Inventory **with the following information:**
 - 1) All existing **regulated** trees on the subject property **identified by a numbering system that is consistent throughout the Arborist Report, site plan and onsite tree tags.** The inventory must also include **regulated** trees that are on adjacent properties **that appear to have CRZs** extending onto the subject property;
 - 2) **Identification of all existing trees in the public right-of-way adjacent to the subject property, regardless of tree size;**
 - 3) **The CRZ and the proposed TPZ of all existing regulated trees specified in feet from the face of each tree trunk.** The inventory must also include the **approximate CRZ and proposed TPZ of regulated trees on adjoining properties** that appear to have **CRZs** extending onto the subject property;
 - 4) **DBH of all existing regulated trees;**
 - 5) **Proposed tree removals;**
 - 6) **Viability status of each regulated tree based on the combined condition ratings pursuant to KZC 95.30(3)(c);**
 - 7) **Tree species and/or common name; and**
 - 8) **Potential Landmark Trees and Groves.**
 - b. Site Plan. **The site plan must be drawn to scale** showing the following:
 - 1) Location of all proposed improvements, including building footprint, access, utilities, applicable **required yards**, buffers, and required landscaped areas clearly identified;
 - 2) Surveyed location of **regulated** trees on the subject property. The site plan must also show the approximate trunk location of **regulated** trees that are **potentially impacted** on adjacent properties;
 - 3) Trees labeled corresponding to the tree inventory numbering system **per subsection (a) of this section;**
 - 4) **CRZs** drawn to scale around all trees potentially impacted by site disturbance resulting from grading, demolition, or construction activities (including approximate **CRZs** of all trees that are potentially impacted on adjacent properties). **Site plans shall include site disturbances associated with over-excavation of foundations, retaining walls, and similar improvements;**
 - 5) Location of tree protection **fences at the proposed TPZs, with distances from the applicable trunks to fences noted on the site plan. Specific tree protection standards during construction, as described in KZC 95.32 or recommended by the Qualified Professional Arborist, shown on demolition, grading, and building permit plans;**
 - 6) Trees proposed to be removed, noted by an 'X' or by ghosting out; and
 - 7) Proposed locations of any **replacement** trees to be planted to meet tree density **credits or mitigation requirements, including the proposed size and species, as outlined in KZC 95.34.**

c. **Qualified Professional Arborist Report with the following:**

- 1) **A combined overall viability status based on the condition ratings of both health and structure for each regulated tree, including regulated trees on adjoining properties that appear to have CRZs extending onto the subject property. The condition ratings for each regulated tree shall be assessed using the following criteria:**

Table 95.30.1 Tree Condition Ratings

Condition Rating	Tree Health <i>Twig and leaf density, size and growth, pest/pathogen issues</i>	Tree Structure <i>Root flare, trunk condition, branch assembly</i>
Excellent	High or above average vigor with little or no twig dieback, discoloration or defoliation.	Trunk and root flare exhibit no visible defects or cavities. Branch structure and attachments are normal for species and free of defects.
Good	Vigor is normal for species. No significant damage due to diseases or pests. Any twig dieback, defoliation or discoloration is minor (up to 10% of the crown).	Well-developed structure. Defects are minor and can be corrected. Codominant stem formation may be present. Trees in groves may have asymmetries/deviations from an open-grown form of the same species.
Fair	Reduced vigor. Twig dieback, defoliation, discoloration, and/or dead branches up to 30% of the crown. Obvious signs of pest problems contribute to a lesser condition but is not likely to be fatal.	Visible evidence of trunk damage or cavities, large girdling roots or branch attachments that require moderate corrections.
Poor	Poor vigor, unhealthy and declining. Low foliage density with extensive (more than 50%) twig and/or branch dieback. Smaller-than-normal leaf size and little evidence of new growth.	Structural problems cannot be corrected, such as recent change in tree orientation, extensive trunk decay or poor branch attachments. Tree/tree part failure may occur at any time

Based on the condition ratings for health and structure in Table 95.30.1, the tree's overall viability shall be assessed as follows in Table 95.30.2:

Table 95.30.2 Tree Viability

		Tree Health →			
Tree Structure ↓	Excellent	Excellent	Good	Fair	Poor
	Excellent	Viable	Viable	Viable	Not viable
	Good	Viable	Viable	Viable	Not viable
	Fair	Viable	Viable	Not viable	Not viable
	Poor	Not viable	Not viable	Not viable	Not viable

For example: an oak tree on a proposed development site rated as 'Fair' tree structure and 'Good' tree health has an overall viability status based on the tree condition ratings of 'Viable.'

- 2) For trees rated as not viable, a description of the reason(s) for removal **must be given** based on **the existing health condition**; high risk of failure due to **existing** structure, **other** defects, or unavoidable isolation (windfirmness); or unsuitability of species, etc., and for which no reasonable alternative action is possible (pruning, cabling, etc.). **The City shall review the viability ratings for consistency with the condition ratings in Table 95.30.1 and Table 95.30.2;**
 - 3) The **Qualified Professional Arborist's** description of the method(s) used to determine TPZs (i.e., CRZ formula, exploratory root excavations, or a case-by-case basis description for individual trees);
 - 4) Any special instructions specifically outlining any work proposed within the **CRZ of retained trees** (i.e., **additional protection from soil compaction, hand-digging, tunneling or boring, root pruning, mitigating any grade changes, monitoring during development activity, watering during summer and aftercare**), including **potentially impacted trees on adjacent properties**;
 - 5) If development proposals result in the retention and/or removal of High Retention Value Trees (including Landmark Trees and Groves) provide an explanation of how tree retention was prioritized based on retention feasibility and proposed construction impacts;
 - 6) A discussion of timing and installation of tree protection measures that must include fencing in accordance with the tree protection standards in KZC 95.32, **including any anticipated changes to tree protection fence location or other activity within the CRZ of retained trees during project construction (e.g., material delivery, equipment access, landscaping)**;
 - 7) Describe the impact of necessary tree removal on the trees to be retained, including those on adjacent properties;
 - 8) The suggested location and species of replacement trees to be planted. The report shall include planting and maintenance specifications pursuant to KZC 95.50, 95.51, **and 95.52**; and
 - 9) **Arborist reports that are based on field work collected three (3) or more years prior to submittal shall be updated with current tree data.**
- d. A description of additional tree retention and protection requirements that apply to properties with development projects proposed within:
- 1) Shoreline setbacks as set forth in Chapter 83 KZC;
 - 2) **Critical Areas and Associated Buffers** as set forth in Chapters 85 and 90 KZC; and
 - 3) Holmes Point Overlay Zone areas as set forth in Chapter 70 KZC.
4. Development of Single-Family Dwellings, Short Plats, Subdivisions, Two/Three-Unit Homes, **Cottage/Carriage Dwellings, and Accessory Structures. Tree Retention Plan review and approval shall be based on compliance with the following provisions:**
- a. **High Retention Value Trees.** In order to retain trees located in required yards, land use buffers, and/or common open spaces, and to retain Landmark Trees and Groves located anywhere on the subject property, the applicant shall pursue, and the Planning Official is authorized to require, compliance with the following standards:
 - 1) **Site Plan Alterations, including the following:**
 - a) Shift or flip (mirror) the location of proposed building footprints and driveways;
 - b) Selection of the required front yard on corner lots in the RSA and RSX zones and selection of the required side yard to meet the 15-foot total required in RS zones;
 - c) Reduce required front yard by up to 5 feet;
 - d) Reduce required rear yards by up to 5 feet where the rear yard is adjacent to an access easement or tract;
 - e) Shift the building footprint on the lot to utilize the variations to development standards allowed in subsection (3) of this section;
 - f) Adjust deck, patio, and path designs;
 - g) Avoid rockery/retaining walls located within CRZs to maintain existing grades;

- 2) **Arboricultural Methods.** The applicant shall employ arboriculture methods to retain trees such as air excavations, boring under roots instead of trenching within TPZs for utilities less than 2 inches diameter, and using additional CRZ protection per KZC 95.32.
- 3) **Variations to Development Standards.** The applicant shall pursue the following variations and the Planning Official (or Public Works Official, where applicable) is authorized to require these variations to development standards:
 - a) Allow required yards to be reduced to 10-foot front and 5-foot rear required yards;
 - b) Allow variations to the garage requirements of KZC 115.43(3);
 - c) Allow variations to the maximum lot coverage by not more than 10 percent where necessary to extend access due to building footprint location while ensuring that the driveway width does not exceed a width of 20 feet;
 - d) Allow minimum 18-foot by 18-foot parking pads;
 - e) Modify right-of-way frontage improvement requirements, such as adjusting the location of any required landscape strip;
 - f) Allow up to a 5-foot increase in building height where the additional height is clearly related to tree retention (e.g., locating mechanical equipment in the attic, avoiding excavation or fill); and
 - g) With short plats and subdivisions, allow clustering per subsection (d) of this section.
- b. **In order to retain Landmark Trees and Groves** located anywhere on the subject property, in addition to the site plan alterations and variations to development standards listed above in subsection (a) of this section, the applicant shall pursue, and the Planning Official is authorized to require the following additional standards:
 - 1) **Site plan alterations, as follows:**
 - a) Reasonable modifications to the proposed building footprints and driveways;
 - b) Relocate utilities when feasible, taking into account gravity and location of existing mains;
 - b) Shore basements and other extensive excavations in order to avoid impact within CRZs;
 - c) Cantilever structures over CRZs; and
 - d) With short plats and subdivisions, clustering per subsection (d) of this section, rearrangement of property lines within the applicable short plat or subdivision, relocation of access roads, and relocation of utilities.
 - 2) **Arboricultural Methods.** The applicant shall employ arboricultural methods to retain Landmark Trees and groves such as air excavations, boring under roots instead of trenching, and using additional CRZ protection per KZC 95.32.
 - 3) **Variations to Development Standards.** The applicant shall pursue and the Planning Official is authorized to require variations allowing required side yards to be reduced to 3 feet where those yards are internal within a proposed short plat or subdivision. In addition, the applicant may pursue, and the Planning Official is authorized to allow, reductions and variations in required parking and driveways.
- c. **Moderate Retention Value Trees.** The following incentives are available in order to protect Moderate Retention Value Trees:
 - 1) An applicant may propose to modify their development proposal in the same manner as provided for High Retention Value Trees in subsections (a) and (b) of this section and the Planning Official (or Public Works Official, where applicable) is authorized to approve these variations to development standards for viable trees that are deemed to have Excellent/Good health and structure per the Tree Condition Table 95.30.1.
 - 2) When Landmark Trees cannot be feasibly retained after pursuing the variations in subsections (a) and (b), the applicant may propose to retain Moderate Retention Value Trees to satisfy Landmark Tree mitigation requirements and/or pay associated fees-in-lieu pursuant to KZC 95.23. The applicant shall indicate tree protection areas on site plans and clearly indicate a request for this incentive.
 - 3) When viable trees located in required yards, land use buffers, and/or common open spaces cannot be feasibly retained after pursuing the variations in subsections (a) and (b), the applicant may propose to retain Moderate Retention Value Trees instead. The Planning Official may approve this incentive provided that the size and condition of the Moderate Retention Value Tree(s) are equal or superior to that of the tree removed in the required yard, land use buffer, and/or common open space.
- d. **Additional Tree Retention Standards for Short Plats and Subdivisions:**
 - 1) **Clustering of Lots.** The Planning Director (for short plat applications) or Hearing Examiner (for preliminary plat applications) may approve variations to minimum lot size, maximum Floor Area Ratio, and Lot Coverage requirements in order to facilitate retention of High Retention Value Trees where necessitated by retention of trees in protective tracts or where lot sizes are averaged in order to retain trees. The following standards shall apply:
 - a) Lot sizes may be averaged, with no minimum lot size specified, provided there is no increase in the allowed density or number of lots otherwise allowed for the subject property;
 - b) The subject property is entitled to maintain the total aggregate maximum Floor Area Ratio (FAR) and Maximum Lot Coverage that would otherwise be permitted for the subject property under a conventional short plat or subdivision. The maximum FAR and/or Maximum Lot Coverage requirements may be adjusted proportionate to the Lot Size reduction(s), provided there is no net increase in the aggregate FAR and/or aggregate Lot Coverage otherwise allowed for the subject property;
 - c) The variations and resultant restrictions shall be included in a recorded agreement and be binding on future owners of the lots.
 - 2) **Modifications to Tree Retention Plans for Short Plats and Subdivisions.** **Modifications to an approved Tree Retention Plan may be approved by the Planning Director pursuant to the following criteria:**
 - 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 that are not the result of actions by the applicant regarding the size, shape, topography, or other physical limitations of the subject property relative to the location of proposed and/or existing improvements on or adjacent to the subject property; and
 - c) There is no practicable or feasible alternative development proposal that results in fewer additional tree removals.
 - 3) **Public Notice for Modifications.** The **Planning Director** shall not approve or deny a modification pursuant to this subsection without first providing notice of the modification request consistent with the noticing requirements for the short plat **or subdivision** and providing opportunity for comments for consideration by the **Planning Director**. Said comment period shall not be less than 14 calendar days. The fee for processing a modification request shall be established by City ordinance.

5. **Development of Multifamily, Commercial and Mixed Use. Tree Retention Plan review and approval shall be based on compliance with the following provisions:**
- a. **High Retention Value Trees.** In order to retain trees located in required yards and/or land use buffers, the applicant shall pursue, and the Planning Official is authorized to require compliance with the following standards:
 - 1) **Site Plan Alterations**, including the following:
 - a) Adjust deck, patio, and path designs;
 - b) Relocate utilities when feasible, taking into account gravity and location of existing mains;
 - c) Avoid rockery/retaining walls located within CRZs to maintain existing grades;
 - d) Shore basements and other extensive excavations in order to avoid impact within CRZs;
 - e) Cantilever structures over CRZs;
 - 2) **Arboricultural Methods.** The applicant shall employ arboriculture methods to retain trees such as air excavations, boring under roots instead of trenching within TPZs for utilities less than 2 inches diameter, and using additional CRZ protection per KZC 95.32.
 - 3) **Variations to Development Standards.** The applicant shall pursue the following variations and the Planning Official (or Public Works Official, where applicable) is authorized to require these variations to development standards:
 - a) Allow required yards to be reduced to 10-foot front;
 - b) Allow variations to the maximum lot coverage by not more than 10 percent where necessary to extend access due to building footprint location while ensuring that the driveway width does not exceed a width of 20 feet;
 - c) Modify right-of-way frontage improvement requirements, such as adjusting the location of any required landscape strip;
 - d) Allow up to a 5-foot increase in building height where the additional height is clearly related to tree retention (e.g., locating mechanical equipment in the attic, avoiding excavation or fill);
 - e) Vary parking lot design and/or access driveway requirements when the Public Works Official and Planning Official both determine the variations to be consistent with the intent of City policies and codes;
 - f) Vary requirements pertaining to stormwater if approved by the Public Works Official under KMC 15.52.060; and
 - g) Reduce or vary the area, width, or composition of any required common recreational open space.
 - b. **Moderate Retention Value Trees.** The following incentives are available in order to protect Moderate Retention Value Trees:
 - 1) An applicant may propose to modify their development proposal in the same manner as provided for High Retention Value Trees in subsection (a) of this section and the Planning Official (or Public Works Official, where applicable) is authorized to approve these variations to development standards for viable trees that are deemed to have Excellent/Good health and structure per the Tree Condition Table 95.30.1.
 - 2) The applicant may propose to retain Moderate Retention Value Trees to satisfy Landmark Tree mitigation requirements and/or associated fees-in-lieu pursuant to KZC 95.23. The applicant shall indicate tree protection areas on site plans and clearly indicate a request for this incentive.
6. **The Planning Official may authorize the removal of High Retention Value Trees otherwise required by this chapter to be retained provided that the following conditions are met:**
- a. After utilizing the required site plan alterations and allowed variations to development standards listed in KZC 95.30(4) and (5), there is no practicable or feasible alternative development proposal that results in fewer tree removals.

95.32 Tree and Soil Protection During Development Activity

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

1. **Placing Materials near Trees.** No person may conduct any activity within the **TPZ** of any tree designated to remain, including, but not limited to, operating or parking equipment, placing solvents, storing building material or stockpiling any materials, or dumping concrete washout or other chemicals. During construction, no person shall attach any object to any tree designated for protection.
2. **Tree Protection Fence.** Before development, land clearing, filling, or any land surface modifications, the applicant shall:
 - a. Erect and maintain readily visible temporary protective tree fencing at the approved **TPZ** which completely surrounds the protected area of all retained trees, groups of trees, vegetation and native soil. Fences shall be constructed of chain link and be at least six (6) feet high, unless another type of fencing is authorized by the Planning Official.
 - b. Install highly visible signs spaced no further than 15 feet along the entirety of the **Tree Protection Fence**. Said signage must be approved by the Planning Official and shall state at a minimum "Tree and Soil Protection Area, Entrance Prohibited" and provide the City phone number for code enforcement to report violations.
 - c. **Site plans showing approved tree retention/protection shall be displayed on development sites in plain view with the general contractor or other responsible party's phone number.**
 - d. Prohibit excavation or compaction of soil or other potentially damaging activities within the fence; provided, that the Planning Official may allow such activities approved by a qualified professional and under the supervision of a qualified professional retained and paid for by the applicant.
 - e. **If any disturbance is proposed within the Inner Critical Root Zone of one or more regulated trees on a neighboring property, the applicant shall provide evidence that the owner of said tree(s) has been notified in writing of the potential impact. The Planning Official may waive this requirement if the applicant's Qualified Professional can demonstrate, through non-injurious methods such as pneumatic root excavations, that there are no roots within the Inner Critical Root Zone.**
 - f. Maintain the Tree Protection Fence in its approved location for the duration of the project until the Planning Official authorizes its removal.
 - g. Ensure that any approved landscaping done in the protected zone subsequent to the removal of the barriers shall be accomplished with machinery from outside the protected zone or by hand.
 - h. In addition to the above, the Planning Official may require the following:
 - 1) If equipment is authorized to operate within the **CRZ**, the soil and CRZ of a tree must be covered with mulch to a depth of at least six (6) inches or with plywood, steel plates or similar material in order to protect roots and soil from damage caused by heavy equipment.
 - 2) Minimize root damage by hand-excavating a 2-foot-deep trench, at the edge of the CRZ, to cleanly sever the roots of trees to be retained. Never rip or shred roots with heavy equipment.
 - 3) Corrective pruning performed on protected trees in order to avoid damage from machinery or building activity.
 - 4) Maintenance of trees throughout construction period by watering and fertilizing.

3. Grade.
 - a. The grade shall not be elevated or reduced within the **CRZ** of trees to be preserved without the Planning Official's authorization based on recommendations from a qualified professional in compliance with **ANSI A300 Part 5 Standard Practices for the Management of Trees and Shrubs During Site Planning, Site Development and Construction**.
 - b. If the grade adjacent to a preserved tree is raised such that it could slough or erode into the tree's **CRZ**, it shall be permanently stabilized to prevent soil erosion and suffocation of the roots.
 - c. The applicant shall not install an impervious surface within the **CRZ** of any tree to be retained without the authorization of the Planning Official. The Planning Official may require specific construction methods and/or use of aeration devices to ensure the tree's survival and to minimize the potential for root-induced damage to the impervious surface.
 - d. To the greatest extent practical, utility trenches shall be located outside of the **CRZ** of trees to be retained. The Planning Official may require that utilities be tunneled under the roots of trees to be retained if the Planning Official determines that trenching would significantly reduce the chances of the tree's survival.
 - e. Trees and other vegetation to be retained shall be protected from erosion and sedimentation. Clearing operations shall be conducted so as to expose the smallest practical area of soil to erosion for the least possible time. To control erosion, it is encouraged that shrubs, ground cover and stumps be maintained on the individual lots, where feasible.
4. Directional Felling. Directional felling of trees shall be used to avoid damage to trees designated for retention.
5. Additional Requirements. The Planning Official may require additional tree protection measures that are consistent with accepted urban forestry industry practices, **including maintenance pursuant to KZC 95.51**.

95.34 Tree Replacement Standards Related to Development Activity

This section establishes the minimum tree planting requirements for development permits using a tree credit system. This section does not establish a maximum retention standard for existing trees. Required tree retention may exceed the standards in subsection (1) of this code section. Single-Family Dwellings, Short Plats, Subdivisions, Two/Three-Unit Homes, Cottage/Carriage Dwellings, and Accessory Structures

1. **Trees Required to be Planted to Meet Tree Density Requirements.** The required minimum tree density for replanting is 50 tree credits per acre for Single-Family Dwellings, Short Plats, Subdivisions, Two/Three-Unit Homes, Cottage/Carriage Dwellings, and/or Accessory Structures and associated demolition and land surface modification.
2. **Applicability of Tree Credits.** The tree credit value that corresponds with DBH is found in Table 95.34. The maximum number of credits awarded to any one individual tree is 11 credits. Existing native conifers (or other conifer species as listed by the Planning Department) shall count at 1.5 times credits for retention. **Trees located on property lines shall count for half tree density credits. For trees that fall between size categories listed in Table 95.34, credits shall be rounded down.** For individual lots in a short plat or subdivision with an approved Tree Retention Plan, the required tree density shall be calculated for each lot within the short plat or subdivision. Trees planted in the following locations shall not count towards tree density credit requirements.
 - a. In the public right-of-way, areas to be dedicated as public right-of-way, and vehicular access easements not included as lot area with the approved short plat or subdivision.
 - b. Existing trees transplanted to an area on the same site unless approved by the **Planning Official** based on transplant specifications provided by a Qualified Professional that will ensure a high probability for survival.

Table 95.34
Tree Credits for Existing Regulated Trees

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

3. Tree Credit Calculation. **To calculate required tree credits**, divide the square footage of the subject lot by 43,560 (the square footage of one acre). The resulting number is then multiplied by 50, the minimum tree credit requirement for one acre. In calculating required tree credits, any fraction of credits shall be rounded up to the next whole number from a 0.5 or greater value.

Example: an 8,500-square-foot lot would need **ten (10)** tree credits ($8,500/43,560 = 0.195 \times 50 = 9.75$, or **ten (10)** credits). The tree density for the lot would be met by retaining one (1) 16-inch DBH native conifer tree (4 credits X 1.5) and two (2) 12-inch DBH non-native trees (worth 2 credits each) for a total of **ten (10)** tree credits, resulting in no required supplemental trees. Tree densities may be exceeded to retain Landmark and High Retention Value Trees.

4. **Minimum Size Replacement Trees.** The required minimum size of a replacement tree worth one (1) tree credit shall be **six (6)** feet tall for native or other conifers and 2-inch caliper for deciduous or broad-leaf evergreen trees. Additional credits may be awarded for larger replacement trees **as decided by the Planning Official**. **Trees planted to form a clipped or sheared hedge will not be counted toward tree density credits. Supplemental Thuja/Arborvitae (or other slow-growing conifers as listed by the Planning and Building Department) planted on development sites shall not count towards tree density credits on a lot.** The installation and maintenance shall be pursuant to KZC 95.50 and 95.51 respectively.

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

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

6. **Payment in-Lieu of Planting.** When the Planning Official determines on-site and off-site locations are unavailable, then the applicant shall pay an amount of money in lieu of planting. The value shall be established according to the formula outlined in the most recent edition of the **Guide for Plant Appraisal**, published by the Council of Tree and Landscape Appraisers. The replacement tree value shall be determined by the City. Unit

costs for conifers and deciduous trees shall be multiplied by the number of required tree credits or mitigation trees. All fee in lieu payments shall be paid into the City Forestry Account pursuant to KZC 95.57.

95.40 Required Landscaping Based on Zoning District

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

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

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

- a. Various use zone charts or development standards tables, in Chapters 15 through 56 KZC, establish additional or special buffering requirements for some uses in some zones.
 - d. Chapter 110 KZC and Chapter 19.36 KMC address vegetation within rights-of-way, except for the I-405 and SR-520 rights-of-way, and the Cross Kirkland Corridor railbanked rail corridor or the Eastside Rail Corridor.
 - e. KZC 115.135, Sight Distance at Intersections, which may limit the placement of landscaping in some areas.
 - f. Chapter 22 KMC addresses trees in subdivisions.
2. Use of Significant Existing Vegetation.
- a. General. The applicant shall apply subsection KZC 95.30, Tree Retention Plan Procedure, to retain existing native trees, vegetation and soil in areas subject to the landscaping standards of this section. The Planning Official shall give substantial weight to the retained native trees and vegetation when determining the applicant's compliance with this section.
 - b. Supplement. The City may require the applicant to plant trees, shrubs, and groundcover according to the requirements of this section to supplement the existing vegetation in order to provide a buffer at least as effective as the required buffer.
 - c. Protection Techniques. The applicant shall use the protection techniques described in KZC 95.32 to ensure the protection of significant existing vegetation and soil.
3. Landscape Plan Required. In addition to the Tree Retention Plan required pursuant to KZC 95.30, application materials shall clearly depict the quantity, location, species, and size of plant materials proposed to comply with the requirements of this section and shall address the plant installation and maintenance requirements set forth in KZC 95.50 and 95.51. Plant materials shall be identified with both their scientific and common names. Any required irrigation system must also be shown.

95.41 Supplemental Plantings

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

95.42 Land Use Buffer Requirements

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

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

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

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

1. For standard 1, the applicant shall provide a 15-foot-wide landscaped strip with a 6-foot-high solid screening fence or wall. Except for public utilities, the fence or wall must be placed on the outside edge of the land use buffer or on the property line when adjacent to private property. For public utilities, the fence or wall may be placed either on the outside or inside edge of the landscaping strip. A fence or wall is not required when the land use buffer is adjacent and parallel to a public right-of-way that is improved for vehicular use. See KZC 115.40 for additional fence standards. The land use buffer must be planted as follows:
 - a. Trees planted at the rate of one (1) tree per 20 linear feet of land use buffer, with deciduous trees of two and one-half (2-1/2) inch caliper, minimum, and/or coniferous trees eight (8) feet in height, minimum. At least 70 percent of trees shall be evergreen. The trees shall be distributed evenly throughout the buffer, spaced no more than 20 feet apart on center.
 - b. Large shrubs or a mix of shrubs planted to attain coverage of at least 60 percent of the land use buffer area within two (2) years, planted at the following sizes and spacing, depending on type:
 - 1) Low shrub – (mature size under three (3) feet tall), 1- or 2-gallon pot or balled and burlapped equivalent;
 - 2) Medium shrub – (mature size from three (3) to six (6) feet tall), 2- or 3-gallon pot or balled and burlapped equivalent;
 - 3) Large shrub – (mature size over six (6) feet tall), 5-gallon pot or balled and burlapped equivalent.
 - c. Living ground covers planted from either 4-inch pot with 12-inch spacing or 1-gallon pot with 18-inch spacing to cover within two (2) years 60 percent of the land use buffer not needed for viability of the shrubs or trees.
2. For standard 2, the applicant shall provide a 5-foot-wide landscaped strip with a 6-foot-high solid screening fence or wall. Except for public utilities, the fence or wall must be placed on the outside edge of the land use buffer or on the property line when adjacent to private property. For public utilities, the fence or wall may be placed either on the outside or inside edge of the landscaping strip. A fence or wall is not required when the land use buffer is adjacent and parallel to a public right-of-way that is improved for vehicular use. See KZC 115.40 for additional fence standards. The landscaped strip must be planted as follows:
 - a. One (1) row of trees planted no more than 10 feet apart on center along the entire length of the buffer, with deciduous trees of 2-inch caliper, minimum, and/or coniferous trees at least six (6) feet in height, minimum. The spacing may be increased to 15 feet to accommodate larger species and avoid long-term crowding. At least 50 percent of the required trees shall be evergreen.
 - b. Living ground covers planted from either 4-inch pot with 12-inch spacing or 1-gallon pot with 18-inch spacing to cover within two (2) years 60 percent of the land use buffer not needed for viability of the trees.
3. Plant Standards. All plant materials used shall meet the most recent American Association of Nurserymen Standards for nursery stock: ANSI Z60.1.
4. Location of the Land Use Buffer. The applicant shall provide the required buffer along the entire common border between the subject property and the adjoining property.
5. Multiple Buffering Requirement. If the subject property borders more than one (1) adjoining property along the same property line, the applicant shall provide a gradual transition between different land use buffers. This transition must occur totally within the area which has the less stringent buffering requirement. The specific design of the transition must be approved by the City.
6. Adjoining Property Containing Several Uses. If the adjoining property contains several permitted uses, the applicant may provide the least stringent land use buffer required for any of these uses.
7. Subject Property Containing Several Uses. If the subject property contains more than one (1) use, the applicant shall comply with the land use buffering requirement that pertains to the use within the most stringent landscaping category that abuts the property to be buffered.
8. Subject Property Containing School. If the subject property is occupied by a school, land use buffers are not required along property lines adjacent to a street.
9. Encroachment into Land Use Buffer. Typical incidental extensions of structures such as chimneys, bay windows, greenhouse windows, cornices, eaves, awnings, and canopies may be permitted in land use buffers as set forth in KZC 115.115(3)(d); provided, that:
 - a. Buffer planting standards are met; and
 - b. Required plantings will be able to attain full size and form typical to their species.

95.43 Outdoor Use, Activity, and Storage

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

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

95.44 PLACEHOLDER - Internal Parking Lot Landscaping Requirements

95.45 Perimeter Landscape Buffering for Driving and Parking Areas

1. Perimeter Buffering – General. Except as specified in subsection (2) of this section, the applicant shall buffer all parking areas and driveways from abutting rights-of-way and from adjacent property with a 5-foot-wide strip along the perimeter of the parking areas and driveways planted as follows (see Figure 95.45.A):
 - a. One (1) row of trees, two (2) inches in caliper and planted 30 feet on center along the entire length of the strip.
 - b. Living groundcover planted to attain coverage of at least 60 percent of the strip area within two (2) years.
 - c. Natural drainage landscapes (such as rain gardens, bio-infiltration swales and bioretention planters) are allowed when designed in compliance with the stormwater design manual adopted in KMC 15.52.060. Perimeter landscape buffering requirements for trees in driving and parking areas still apply. Refer to Public Works Pre-Approved Plans.
2. Exception. The requirements of this section do not apply to any parking area that:
 - a. Is fully enclosed within or under a building; or
 - b. Is on top of a building and is at least one (1) story above finished grade; or
 - c. Serves single-family dwellings exclusively; or
 - d. Is within any zone that requires design regulation compliance. See below for Design District requirements.
3. Design Districts. If subject to Design Review, each side of a parking lot that abuts a street, through-block pathway or public park must be screened from that street, through-block pathway or public park by using one (1) or a combination of the following methods (see Figures 95.45.A, B, and C):
 - a. By providing a landscape strip at least five (5) feet wide planted consistent with subsection (1) of this section, or in combination with the following. In the RHBD Regional Center (see KZC Figure 92.05.A) a 10-foot perimeter landscape strip along NE 85th Street is required to be planted consistent with subsection (1) of this section.
 - b. The hedge or wall must extend at least two (2) feet, six (6) inches, and not more than three (3) feet above the ground directly below it.
 - c. The wall may be constructed of masonry or concrete, if consistent with the provisions of KZC 92.35(1)(g), in building material, color and detail, or of wood if the design and materials match the building on the subject property.
 - d. In JBD zones:
 - 1) If the street is a pedestrian-oriented street, the wall may also include a continuous trellis or grillwork, at least five (5) feet in height above the ground, placed on top of or in front of the wall and planted with climbing vines. The trellis or grillwork may be constructed of masonry, steel, cast iron and/or wood.
 - 2) If the wall abuts a pedestrian-oriented street, the requirements of this subsection may be fulfilled by providing pedestrian weather protection along at least 80 percent of the frontage of the subject property.
 - e. If development is subject to Design Review as described in Chapter 142 KZC, the City will review plant choice and specific plant location as part of the Design Review approval. The City may also require or permit modification to the required plant size as part of Design Review approval.
4. Overlapping Requirements. If buffering is required in KZC 95.42, Land Use Buffering Standards, and by this subsection, the applicant shall utilize the more stringent buffering requirement.

Perimeter Parking Lot Landscaping

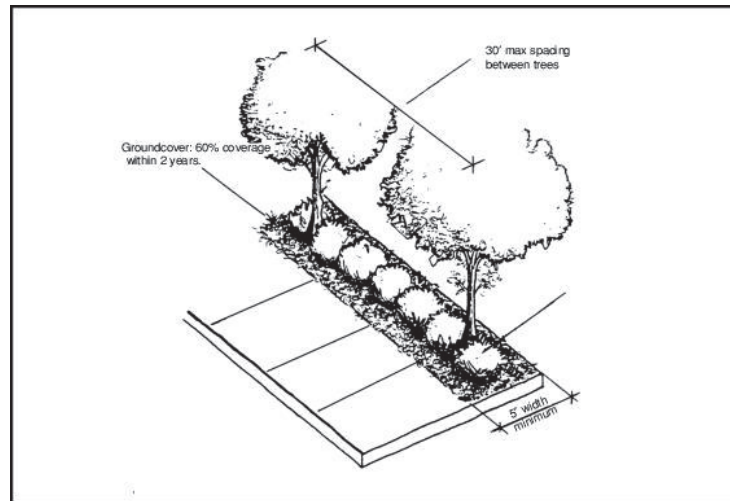


FIGURE 95.45.A

Perimeter Parking – Examples of Various Screen Wall Designs

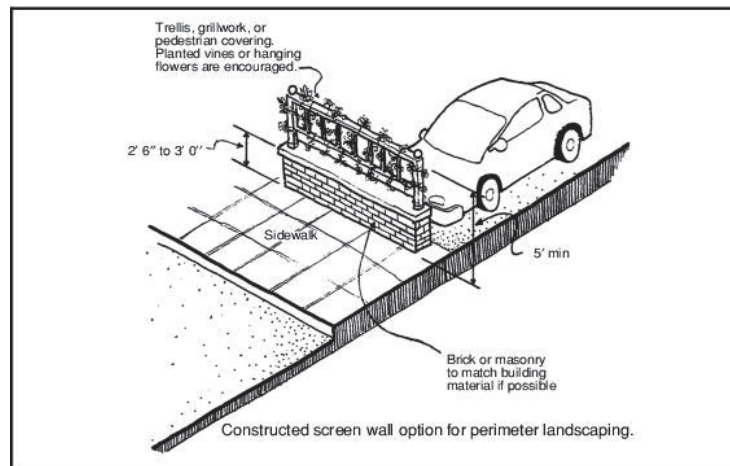


FIGURE 95.45.B

Perimeter Parking – Examples of Various Screen Wall Designs

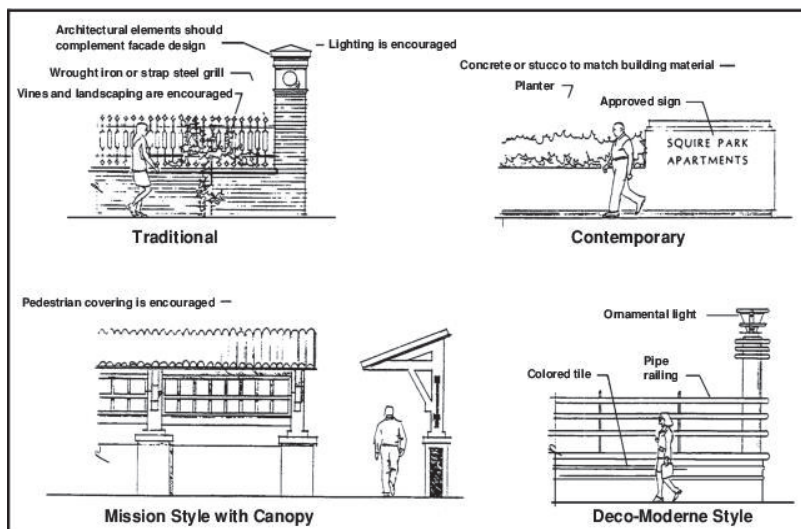


FIGURE 95.45.C

95.46 Modifications to Required Landscaping and Buffer Standards

1. Modification to Land Use Buffer Requirements. The applicant may request a modification of the requirements of the buffering standards in KZC 95.42. The Planning Official may approve a modification if:

- The owner of the adjoining property agrees to this in writing; and
- The existing topography or other characteristics of the subject property or the adjoining property, or the distance of development from the neighboring property decreases or eliminates the need for buffering; or
- The modification will be more beneficial to the adjoining property than the required buffer by causing less impairment of view or sunlight; or
- The Planning Official determines that it is reasonable to anticipate that the adjoining property will be redeveloped in the foreseeable future to a use that would require no, or a less intensive, buffer; or
- The location of pre-existing improvements on the adjoining site eliminates the need or benefit of the required landscape buffer.

2. Modifications to General Landscaping Requirements.

- Authority to Grant and Duration. If the proposed development of the subject property requires approval through Design Review or Process I, IIA, or IIB, described in Chapters 142, 145, 150, and 152 KZC, respectively, a request for a modification will be considered as part of that process under the provisions of this section. The City must find that the applicant meets the applicable criteria listed in subsections (2)(b) and (2)(c) of this section. If granted under Design Review or Process I, IIA, or IIB, the modification is binding on the City for all development permits issued for that development under the building code within five (5) years of the granting of the modification.

If the above does not apply, the Planning Official may grant a modification in writing under the provisions of this section.

- Internal Parking Lot Landscaping Modifications. For a modification to the internal parking lot landscaping requirements in KZC 95.44, the landscape requirements may be modified if:

- The modification will produce a landscaping design in the parking area comparable or superior to that which would result from adherence to the adopted standard; or
- The modification will result in increased retention of significant existing vegetation; or
- The purpose of the modification is to accommodate low impact development techniques as approved by the Planning Official.

- Perimeter parking lot and driveway landscaping. For a modification to the perimeter landscaping for parking lots and driveways, the buffering requirements for parking areas and driveways may be modified if:

- The existing topography of or adjacent to the subject property decreases or eliminates the need for visual screening; or

- 2) The modification will be of more benefit to the adjoining property by causing less impairment of view or sunlight; or
- 3) The modification will provide a visual screen that is comparable or superior to the buffer required by KZC 95.45; or
- 4) The modification eliminates the portion of the buffer that would divide a shared parking area serving two (2) or more adjacent uses but provides the buffer around the perimeter of the shared parking area.

95.47 Nonconforming Landscaping and Buffers

1. The landscaping requirements of KZC 95.40, Required Landscaping Based on Zoning District, KZC 95.43 Outdoor Use, Activity and Storage, KZC 95.44, Internal Parking Lot Landscaping, and KZC 95.45, Perimeter Landscape Buffering for Driving and Parking Areas, must be brought into conformance as much as is feasible, based on available land area, in either of the following situations:
 - a. An increase of at least 10 percent in gross floor area of any structure; or
 - b. An alteration to any structure, the cost of which exceeds 50 percent of the replacement cost of the structure.
2. Land use buffers must be brought into conformance with KZC 95.42 in either of the following situations:
 - a. An increase in gross floor area of any structure (the requirement to provide conforming buffers applies only where new gross floor area impacts adjoining property); or
 - b. A change in use on the subject property and the new use requires larger buffers than the former use.

95.50 Installation Standards for Required Plantings

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

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

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

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

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

6. **Plant Location. Newly-planted replacement trees should generally be planted at least 3 feet away from property lines. Large trees shall not be planted under or within proximity to overhead utilities. Newly-planted replacement trees may be checked for the approved locations as a final inspection procedure on development sites. Replacement trees must be planted in a manner that allows the tree species to mature to its full height and width. Trees shall be located with the appropriate spacing from buildings and other trees, soil volume should not be restricted for the mature size of the tree and soil should be amended in accordance with the storm water code. Trees shall be installed so that the root flare is at or slightly above the finished ground elevation in order to promote a healthy root structure and identify any girdling roots at the time of planting**

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

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

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

- a. Option 1. A permanent built-in irrigation system with an automatic controller designed and certified by a licensed landscape architect as part of the landscape plan.
- b. Option 2. An irrigation system designed and certified by a licensed landscape architect as part of the landscape plan, which provides sufficient water to ensure that the plants will become established. The system does not have to be permanent if the plants chosen can survive adequately on their own, once established.
- c. Option 3. Irrigation by hand, **which includes the use of water bags**. If the applicant chooses this option, an inspection will be required one (1) year after final inspection to ensure that the landscaping has become established.

9. Drainage. All landscapes shall have adequate drainage, either through natural percolation or through an installed drainage system. A percolation rate of one-half (1/2) inch of water per hour is acceptable.
10. Mulch.
 - a. Required plantings, except turf or areas of established ground cover, shall be covered with two (2) inches or more of organic mulch to minimize evaporation and runoff. Mulch shall consist of materials such as yard waste, sawdust, and/or manure that are fully composted.
 - b. All mulches used in planter beds shall be kept at least six (6) inches away from the trunks of shrubs and trees.
11. Protection. All required landscaped areas, particularly trees and shrubs, must be protected from potential damage by adjacent uses and development, including parking and storage areas. Protective devices such as bollards, wheel stops, trunk guards, root guards, etc., may be required in some situations.
12. **Final Inspection. These requirements shall be completed prior to final inspection.**

95.51 PLACEHOLDER Tree and Landscape Maintenance Requirements

95.52 Prohibited Vegetation

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

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

95.55 Enforcement and Penalties

Upon determination that there has been a violation of any provision of this chapter, the City may pursue code enforcement and penalties in accordance with the provisions of Chapter 1.12.100 KMC, **Special Provisions Relating to Code Enforcement of Tree Regulations in Chapter 95 KZC.**

95.57 City Forestry Account

1. Funding Sources. All civil penalties received under this chapter and all money received pursuant to KZC **95.34(6)** shall be used for the purposes set forth in this section. In addition, the following sources may be used for the purposes set forth in this section:
 - a. Agreed upon restoration payments imposed under KZC 95.55 or settlements in lieu of penalties;
 - b. **Agreed upon payment in lieu of planting replacement trees under KZC 95.34(6);**
 - c. Sale of trees or wood from City property where the proceeds from such sale have not been dedicated to another purpose;
 - d. Donations and grants for tree purposes;
 - e. Sale of seedlings by the City; and
 - f. Other monies allocated by the City Council.
2. Funding Purposes. The City shall use money received pursuant to this section for the following purposes:
 - a. Acquiring, maintaining, and preserving wooded areas within the City;
 - b. Planting and maintaining trees within the City;
 - c. Establishment of a holding public tree nursery;
 - d. Urban forestry education;
 - e. Implementation of a tree canopy monitoring program; or
 - f. Other purposes relating to trees as determined by the City Council.

KZC	Section Title	Updates	Council Review	Council Direction	Staff Response
95.05	Purpose and Intent	No impact	November 16, 2021	Revise purpose to “City-wide tree canopy coverage of at least 40 percent ”	<input checked="" type="checkbox"/> Completed. See KZC 95.05
95.10	Definitions	Minor	November 16, 2021	Add definition of “Pruning”	<input checked="" type="checkbox"/> Completed. See KZC 95.10(11)
95.15	Exempt Tree Removal Activities (previously 95.20)	Minor	November 16, 2021	Retain proposed language	
95.20	Public Tree – Pruning and Removal (previously 95.21)	Minor	November 16, 2021	Retain proposed language	
95.21	Private Property – Tree Pruning (previously 95.23)	Minor	November 16, 2021	Retain proposed language	
95.23	Landmark Trees – Mitigation Requirements	Moderate/Major	January 4, 2022	Retain proposed language	
95.25	Private Property – Tree Removal, Not Associated with Development Activity	Moderate/Major	January 4, 2022	Revisions required	<input type="checkbox"/> To be reviewed 2/1/2022
95.30	Tree Retention Associated with Development Activity	Moderate/Major	January 18, 2022		
95.32	Tree and Soil Protection during Development Activity	Minor	November 16, 2021	Retain proposed language	
95.34	Tree Replacement Standards Related to Development Activity	Moderate/Major	January 18, 2022		
95.40	Required Landscaping Based on Zoning District	None	November 16, 2021	Retain proposed language	
95.41	Supplemental Plantings	None	November 16, 2021	Retain proposed language	
95.42	Land Use Buffer Requirements	None	November 16, 2021	Retain proposed language	
95.43	Outdoor Use, Activity, and Storage	None	November 16, 2021	Retain proposed language	
95.44	Internal Parking Lot Landscaping Requirements	None	January 18, 2022	Elevate from minor to moderate/major amendments for further discussion	<input type="checkbox"/> To be reviewed 2/1/2022
95.45	Perimeter Landscape Buffering for Driving and Parking Areas	None	January 18, 2022	Elevate from minor to moderate/major amendments for further discussion	<input type="checkbox"/> To be reviewed 2/1/2022
95.46	Modifications to Required Landscaping and Buffer Standards	None	November 16, 2021	Retain proposed language	
95.47	Nonconforming Landscaping and Buffers	None	November 16, 2021	Retain proposed language	
95.50	Installation Standards for Required Plantings	Minor	November 16, 2021	Retain proposed language	
95.51	Tree and Landscape Maintenance Requirements	Moderate/Major	January 18, 2022	Elevate from minor to moderate/major amendments for further discussion	<input type="checkbox"/> To be reviewed 2/1/2022
95.52	Prohibited Vegetation	None	November 16, 2021	Retain proposed language	
95.55	Enforcement and Penalties	Moderate	January 18, 2022		
95.57	City Forestry Account	No impact	November 16, 2021	Retain proposed language	