



CITY OF WOODINVILLE, WA  
**REPORT TO THE PLANNING COMMISSION**  
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**To:** Planning Commission **Date:** June 18, 2014  
**From:** David Kuhl, Development Services Director   
**By:** Erin Martindale, Senior Planner   
**Subject:** Study Session – Ordinance No. 589: Tree Regulations

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**ISSUE:** Shall the Planning Commission review the proposed tree regulation amendments?

**STAFF RECOMMENDATION:** To review and comment on the proposed changes.

**POLICY DECISION:** Woodinville Municipal Code (WMC) 17.07.050 establishes that zoning code amendments, development regulations/amendments, area-wide zoning map amendments, Comprehensive Plan adoption/amendments, and annexations be reviewed by the Planning Commission at a public hearing and then forwarded to the City Council with a recommendation.

**BACKGROUND/DISCUSSION:** The Tree Board has worked for the last year to make recommendations to revise the tree code; with objectives of simplifying the code, taking out unnecessary complexity, and making tree credit and tree removal requirements more user friendly and more equitable. The Council has had a docket item for updating the tree regulations since 2012.

The proposed changes would:

1. Revise the applicability of the tree regulations, so that they only apply to single-family residential zones. The landscaping provisions would apply in non-single-family residential zones, and there would not be additional tree regulations.
2. Increase the exemption for tree removal without a permit, from 6 inches to 9 inches.
3. Allow removal of dead trees without a permit.
4. Modify the allowances for the number of healthy trees that may be removed per year, and allow twice the number of trees to be removed in a given year, subject to criteria.
5. Remove requirement for tree risk assessor certification for removal of nuisance trees.
6. Remove "Type 3 Trees", consolidate the Tree Types to 1 and 2.
7. Allow for no replanting in critical areas and buffers when 10 or less trees are removed, subject to criteria.
8. Modify the tree density requirements, to have different requirements by zone.
9. Modify how diameter-at-breast-height is measured for existing trees and newly planted trees.
10. Remove the species multiplier.
11. Modify the tree density credit table.
12. Allow for delayed or no planting where the soil is diseased or there are pest infestations.
13. Remove the incentive for planting a mix of native species.
14. Add a requirement for the Director to develop a fencing and signage detail for tree protection.
15. Remove requirement for maintenance agreement.
16. Change definitions.
17. Add a requirement to the landscaping code for removal of trees to obtain a permit and to replace plantings that are removed.

Tree Board Recommendation

There is one difference in the draft code between the Tree Board recommendation and staff recommendation. The code has a provision that allows the City to seek third party review, where staff does not agree with the arborist’s conclusions. The current code requires that the costs of this third party review to be paid by the applicant.

The Tree Board recommends that this language be revised so that, if the third party reviewer agrees with the applicant, the City pays the cost. Staff does not recommend this change.

Issues Raised by Planning Commission

The Planning Commission reviewed this item at the April 16, 2014, meeting. The following issues were raised at this meeting:

- 1. Reviewing site plans/projects in different zones and the impacts of the proposed code.

One of the reasons that different tree credits are required in the single-family residential zones is that they have different building coverage and impervious surface limits. This results in site plans with varying room to preserve existing and/or plant new trees. Two examples are shown in Attachment 4. Staff will go through these in additional detail at the meeting.

STANDARD	R-1	R-4	R-6	R-8
Maximum Building Coverage: Percentage	15%	35%	50%	55%
Maximum Impervious Surface: Percentage	20%	45%	70%	75%

- 2. Separating the requirements for development from those for existing lots.

Kirkland has a completely different requirement for tree removal not associated with development. This code allows two trees to be removed each year, subject to criteria, as long as two trees remain on the site. Lynnwood allows two trees, or 40% of the significant trees to be removed in a year, with a 1:1 replanting requirement.

Bellevue requires 15% of the existing trees to be retained as part of a development, and then 30% of existing trees to be retained on existing lots. Meaning, if there are 100 trees on a lot when the subdivision is granted, 15 trees are required to be retained. Then, if there are 15 trees on a site with a house, 30% of those trees would be required to be retained, or 5 trees.

- 3. Requiring a smaller ratio for replacement of trees on existing lots, in R-6 or R-8 zones.

One option for replacement trees is to provide more credit for planted trees than for existing trees. For example, Kirkland gives a full credit for a 2-inch caliper tree at planting, while this size tree is worth 0 credits for existing trees. Redmond and Lynnwood specify the minimum size (2.5-inch caliper), and 1:1 ratio for replanting for each tree removed.

**RECOMMENDED ACTION:  
REVIEW AND PROVIDE FEEDBACK ON THE PROPOSED TREE REGULATION AMENDMENTS.**

- ATTACHMENT 1: Proposed Tree Code Changes to Chapter 21.15
- ATTACHMENT 2: Revisions to Definitions Tree Code
- ATTACHMENT 3: Revision to Landscaping Code (Chapter 21.16) regarding Tree Removal
- ATTACHMENT 4: Site Plan Examples

**Chapter 21.15**  
**DEVELOPMENT STANDARDS – TREE PROTECTION**

## Sections:

- 21.15.010 Purpose and intent.
- 21.15.020 Applicability.
- 21.15.030 Exemptions.
- 21.15.040 Alternative compliance.
- 21.15.050 City tree fund.
- 21.15.060 Tree plans, review procedures, and tree typing.
- 21.15.070 Tree density.
- 21.15.080 Tree protection during construction.
- 21.15.090 Installation standards for required tree plantings.
- 21.15.100 Tree maintenance requirements.
- 21.15.110 Prohibited vegetation.
- 21.15.120 Enforcement and penalties.

**21.15.010 Purpose and intent.**

(1) Trees are important elements of the physical environment. They are integral to Woodinville's community character and protect public health, safety, and general welfare. Protecting, enhancing, and maintaining healthy trees, groves of trees and vegetation are key community values. The City's goal is to achieve an overall tree canopy coverage of 40 percent for the community. The many benefits of healthy trees and vegetation contribute to Woodinville'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, assimilating carbon dioxide and generating oxygen;
- (c) Providing cost-effective protection from severe weather conditions with cooling effects in the summer months and insulating effects in winter;
- (d) Providing visual relief and screening buffers;
- (e) Providing recreational benefits;
- (f) Providing habitat, cover, food supply, and corridors for a diversity of fish and wildlife; and
- (g) 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 removal in urban areas has resulted in the loss to the public of these benefits. The purpose of this chapter is to establish processes and standards to provide for the retention, protection, preservation, replacement, proper maintenance, and use of significant trees and woodlands located in the City of Woodinville. The intent of this chapter is to:

- (a) Maintain and enhance canopy coverage provided by native trees for their benefits;
- (b) Preserve and enhance the City of Woodinville'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 native trees, groves of trees, and the understory of trees and that avoid unnecessary disturbance to the City's natural vegetation;
- (d) Mitigate the consequences of required tree removal in land development through on- and off-site native tree replacement with the goals of halting loss and enhancing Woodinville's tree canopy to achieve an overall healthy tree canopy cover of 40 percent City-wide over time;
- (e) Encourage tree retention efforts by allowing flexibility with respect to certain other development requirements;
- (f) Implement the goals and objectives of the City's Comprehensive Plan;
- (g) Implement the goals and objectives of the State Environmental Policy Act (SEPA).

### **21.15.020 Applicability.**

The provisions of this chapter shall apply to the single-family residential zones, including the R-1, R-4, R-6, and R-8 zones.

- (1) Permit Required. No person shall directly or indirectly conduct any of the activities listed below before first obtaining a tree removal permit as provided in this chapter unless the activity is exempted in WMC 21.15.030. Permits shall be processed as described in WMC 21.15.060(5).
  - (a) Removal of any significant tree as defined in Chapter 21.06 WMC on any property.
  - (b) Removal of nonsignificant trees, up to ~~between two inches and six-nine-inches that~~ have a combined diameter-at-breast-height of 40 inches or the equivalent of 11 tree credits, within a 12-month period.
- (2) Tree Density Compliance. Any new development or redevelopment that results in an addition, alteration or repair that adds square footage equal to or greater than 25 percent of the existing square footage, or has construction costs of an amount equal to or greater than 25 percent of the assessed value, of the structures on-site, shall fully comply with the tree density requirements in WMC 21.15.070. For tree removals requiring Tree Plan IV and Tree Plan I-Minor, the applicant/property owner shall be required to provide 50 percent greater tree credits than currently exist, or the minimum tree density requirement, whichever is less, as described in WMC 21.15.060(3)(a)(iii).

### **21.15.030 Exemptions.**

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

- (1) Emergency Tree Removal. Any tree on private, developed property that poses an imminent threat to life or property, due to a storm event such as a wind storm or ice storm, may be removed without first obtaining a permit. The party removing the tree will contact the City within seven days of removal to provide documentation of threat for approval of exemption. If the City Tree Official determines that the emergency tree removal was not warranted, he or she may require that the party obtain a permit and/or require that replacement trees and vegetation be replanted as mitigation, in accordance with WMC 21.15.120(8)(b).
- (2) Utility Management. Trees may be removed by the City or utility provider in situations involving immediate danger to life or property, or interruption of services provided by a utility.
- (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.
- (4) Removal of nonsignificant trees ~~with a diameter-at-breast-height of less than two inches,~~ except as required by WMC 21.15.020(1)(b).

(5) Trees within the public right-of-way, and trees removed as part of a City construction project, shall be subject to the requirements of Chapter 2.24 WMC.

(6) Dead Tree Removal. Any tree on private, developed property that from a cursory visual inspection can be determined to be fully dead by a layman without any arborist training may be removed without first obtaining a permit. The party removing the tree will contact the City within seven days of removal to provide documentation of the deceased tree, and, if known, the cause of death. If the City Tree Official determines that the dead tree removal was not warranted, he or she may require that the party obtain a permit and or require that replacement trees and vegetation be replanted as mitigation, in accordance with WMC 12.15.120 (8) (b).

#### **21.15.040 Alternative compliance.**

All activities regulated by this chapter shall be performed in compliance with the applicable standards contained in this chapter, unless the applicant demonstrates that alternate measures or procedures will be superior to the provisions of this chapter in accomplishing the purpose and intent of this chapter as described in WMC 21.15.010. Requests to use alternative measures and procedures shall be reviewed by the City Tree Official, who may approve, approve with conditions, or deny the request. Examples include but are not limited to: (1) retention of specimen or heritage trees and groves of trees, (2) use of low impact development techniques, and/or (3) Green Building Design or Leadership in Energy and Environmental Design. The City Tree Official is authorized to establish administrative criteria for alternative compliance. Alternative compliance is intended mainly for those development applications requiring a Tree Plan II, pursuant to WMC 21.15.060(3).

#### **21.15.050 City tree fund.**

(1) **Funding Sources.** All civil penalties received under this chapter and all money received pursuant to WMC 21.15.070 and 21.15.120 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 WMC 21.15.120 or settlements in lieu of penalties;
- (b) Sale of trees or wood from City property where the proceeds from such sale have not been dedicated to another purpose;
- (c) Donations and grants for tree purposes;
- (d) Sale of seedlings by the City; and
- (e) Other monies allocated by the City Council.

(2) **Funding Purposes.** The City shall use money received pursuant to this section for the following purposes. The Tree Board shall recommend with each budget to the City Council for approval how the fund will be allocated. Prioritization shall be based on the Urban Forestry Plan.

- (a) Acquiring, maintaining, and preserving wooded areas within the City;
- (b) Planting and maintaining trees within the City;
- (c) Identification and maintenance of heritage trees;
- (d) Establishment of a holding public tree nursery;
- (e) Urban forestry education; or
- (f) Other purposes relating to trees as determined by the City Council.

#### **21.15.060 Tree plans, review procedures, and tree typing.**

(1) Introduction. The City requires a tree permit in conjunction with all development permits resulting in site disturbance and with any proposed tree removal on developed sites not exempted by WMC 21.15.030.

In order to make better decisions about tree retention, particularly during all stages of development, tree removal permits will require specific information about the existing trees before removal is allowed. Different levels of detail correspond to the scale of the project or activity. Specific tree plan review standards are provided in this section with the intent of facilitating the preservation of healthy, significant trees.

The City’s objective is to retain as many viable trees, groves of trees and the understory as possible on a developing site while still allowing the development proposal to move forward in a timely manner. This objective is intended to retain existing groves of trees in order to meet the City-wide goal of 40 percent tree canopy coverage.

(2) Tree Plan Required.

(a) Requirement Established. An applicant for a tree removal permit must submit a tree plan that complies with this section. A qualified tree professional may be required, as determined by the type of tree plan described in subsection (3) of this section, to prepare certain components of a tree plan at the applicant’s expense. If proposed development activities call for more than one tree plan level, the tree plan level with the more stringent requirements shall apply; provided, that the City Tree Official may require a combination of tree plan components based on the nature of the proposed development activities. If proposed activity is not clearly identified in this chapter, the City Tree Official shall determine the appropriate tree plan.

(b) Previously Approved Development. Any subdivision or short subdivision that is subject to an approved tree plan that had approval prior to the effective date of the ordinance codified in this chapter shall not be subject to the tree retention and plan requirements in this section, except that any requested changes to the previously approved tree plan that results in removal of additional existing trees shall trigger the requirements under this chapter. The unchanged tree plan approval shall apply to any building or site development permits that are applied for in conformance with the approval of that subdivision or short subdivision.

(3) Tree Plan and Retention Requirements. The following table sets forth the different tree plans required for development activities or removal requests requiring a tree removal permit.

Applicants for development subject to ~~Tree Plan II or III are required to attend a Technical Review Committee meeting prior to submittal, and are strongly encouraged to do so~~ attend a pre-application meeting prior to any site design work, so that the applicable tree retention and replacement concepts can be incorporated into the design of the subject property. Each tree plan sets forth the required components and retention standards. The City Tree Official may waive a component for a tree plan if he or she determines that the information is not necessary due to conditions of the property. For a Tree Plan IV, where a fee is required, the fee shall be paid at permit issuance.

(a) Table 21.15.060-1 – Tree Plan Requirements.

(i) Type of Plan Required.

Requirement	Tree Plan I	Tree Plan II	Tree Plan III	Tree Plan IV
Type of project	Required for any permits* for one or	<del>Required for any permits* for three</del>	Required for new residential	Required for tree removal on a

Requirement	Tree Plan I	Tree Plan II	Tree Plan III	Tree Plan IV
	<p>two dwelling units on individual lot. For individual lots of a subdivision or short subdivision with an approved Tree Plan III, the Tree Plan III requirements shall be applied to the individual lots and no new Tree Plan I will be required.</p>	<p><del>or more detached dwelling units; or any use other than residential.</del> <del>For permits* to existing buildings where the cost of construction exceeds the applicability requirements of WMC <a href="#">21.15.020(2)</a>, the requirements of Tree Plan I – Minor shall apply.</del></p>	<p>subdivisions or short subdivisions and related site development permit applications.</p>	<p>property on which no development activity is proposed or in progress. Activity requiring a Tree Plan IV includes but is not limited to: requests to remove healthy tree; requests to remove hazard or nuisance tree removal not exempt under WMC <a href="#">21.15.030</a>; and tree removal in areas dedicated to ensure protection of vegetation, critical areas and their buffers, including NGPEs. The plan can be developed by the applicant but may require assistance of a qualified tree professional.</p>
Major and minor	<p>Tree Plan I – Major shall be required for new development, redevelopment, or development in which the total square footage of the proposed improvements is more than 25 percent of the total square footage or assessed value of the existing improvements on the subject property. Tree Plan I – Minor shall be required for all proposed development activities and site</p>	N/A	N/A	N/A

Requirement	Tree Plan I	Tree Plan II	Tree Plan III	Tree Plan IV
	disturbance for which Tree Plan I – Major does not apply.			

\* Tree Plan I or II is required for any permits that will result in site disturbance or exceed the compliance requirements in WMC 21.15.020(2).

(ii) Plan Requirements.

Requirement	Tree Plan I	Tree Plan II	Tree Plan III	Tree Plan IV
(1) Tree Location	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (Must be surveyed)	<input checked="" type="checkbox"/> (Must be surveyed)	<input checked="" type="checkbox"/> (If more than two trees cut code allowance of healthy trees cut per <u>Table 2 Annual permitted removal</u> )
(2) Tree Inventory	<ul style="list-style-type: none"> <li>• Size in DBH</li> <li>• Species</li> <li>• General health</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>• Size in DBH</li> <li>• Species</li> </ul>
(3) Site Plan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> (If more than two trees cut code allowance of healthy trees cut per <u>Table 2 Annual permitted removal</u> -)
(4) Planting Plan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
(5) Tree Protection Measures	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
(6) Tree Density Calculations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
(7) Preservation and Maintenance Agreement		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
(8) Other Requirements	(1) For Tree Plan I – Major, assessment by a qualified tree professional shall be required if any significant trees are in required yards, within 10 feet of any side property line on the	-		<p>(1) <u>Tree Density Table 21.15.070(a) gives the required number of tree credits per acre.</u></p> <p>(2) <u>The number of healthy trees per year that can be removed within a 12-month period under a Tree Plan IV</u></p>

Requirement	Tree Plan I	Tree Plan II	Tree Plan III	Tree Plan IV								
	<p>subject property, or within 10 feet of the building footprint.                      (2) For Tree Plan I – Minor, the above tree information shall be required only for trees potentially impacted by proposed development activity, and surveyed tree locations shall not be required.                      (3) For lots from a subdivision or short subdivision, with an approved Tree Plan III, the tree information shall be transferred over and the applicant must comply with the applicable Tree Plan III requirements.</p>			<p><u>Table 2 Annual permitted removal</u></p> <table border="1" data-bbox="1019 373 1440 674"> <thead> <tr> <th data-bbox="1019 373 1230 562"><u>Zoning</u></th> <th data-bbox="1230 373 1440 562"><u>Number of Healthy Trees that may be removed per year</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="1019 562 1230 600"><u>R6-R8</u></td> <td data-bbox="1230 562 1440 600"><u>1</u></td> </tr> <tr> <td data-bbox="1019 600 1230 638"><u>R4</u></td> <td data-bbox="1230 600 1440 638"><u>3</u></td> </tr> <tr> <td data-bbox="1019 638 1230 674"><u>R-1</u></td> <td data-bbox="1230 638 1440 674"><u>5</u></td> </tr> </tbody> </table> <p>A property owner may remove up to two healthy significant trees <u>The property owner may remove twice the maximum number of healthy significant trees as permitted if they agree not to remove any additional healthy trees for two years and meet tree density requirements per Table 21.15.070(a). Sites with existing development larger than two acres may remove up to two healthy trees per acre within a 12-month period. There is no limit on the number of hazard trees that may be removed; however, additional nonhazard trees may not be cut within the 12-month period if two or more hazard trees are removed.</u>                      (2) An arborist report will be required, explaining how the tree(s) fit the criteria in this section, if removal is based on nuisance or hazard and the nuisance or hazard condition is not obvious. <u>An evaluation by a qualified tree professional shall be required. For nuisance tree determination only, the qualified professional is not required to be</u></p>	<u>Zoning</u>	<u>Number of Healthy Trees that may be removed per year</u>	<u>R6-R8</u>	<u>1</u>	<u>R4</u>	<u>3</u>	<u>R-1</u>	<u>5</u>
<u>Zoning</u>	<u>Number of Healthy Trees that may be removed per year</u>											
<u>R6-R8</u>	<u>1</u>											
<u>R4</u>	<u>3</u>											
<u>R-1</u>	<u>5</u>											

Requirement	Tree Plan I	Tree Plan II	Tree Plan III	Tree Plan IV
				<p><del>a tree risk assessor. that provides the arborist report for hazard or nuisance trees shall be certified in tree risk assessment.</del></p> <p>(3) For nuisance or hazard trees in critical areas or their buffers, the planting plan must propose action to mitigate the hazard or nuisance in accordance to standards set forth in this section.</p>
				<p>(4) Tree removal on undeveloped property shall be approved only for hazard or nuisance trees pursuant to the criteria in this section. The tree removal exemptions in WMC <u>21.15.030</u> are not applicable to undeveloped property.</p> <p>(5) If the removal request will result in a tree density below the required tree density in this section, tree replacement is required as set forth in this section.</p> <p>(6) For removal of hazard or nuisance trees, the tree inventory information required to be submitted shall be completed within two weeks of permit issuance. Any required replanting shall occur within 12 months of permit issuance.</p>

List of Tree Plan Requirements per Table above:

- (1) Location of significant trees and their measured driplines and critical root zone, including those on abutting property whose driplines extend over subject property, shown on a map. A survey may be required for a Tree Plan I where an existing tree would be impacted by potential buildings.

- (2) A tree inventory prepared by a qualified tree professional must include: (a) a numbering system of existing significant trees (with corresponding tags on trees), (b) measured driplines, (c) size (diameter-at-breast-height), (d) species and tree status (removed or retained) based on tree type criteria in this section for all significant trees. The inventory shall include approximate trunk location and measured dripline of significant trees that are on abutting property with driplines extending over the subject property line. A report from a qualified tree professional with tree risk assessment certification shall accompany the tree inventory, and include: (a) an indication, for each tree, of whether it is proposed to be retained or removed, based on health, risk of failure and suitability of species; (b) limits of disturbance around viable trees; (c) special instruction for work within their critical root zone; and (d) location and type of protection measures for these trees; (e) species ratings (zero to 100 percent) according to the most current published edition of the International Society of Arboriculture's "Guide for Plant Appraisal."
- (3) A site plan using the information from the tree survey, inventory and report, showing the: (a) proposed development activity; (b) location and limits of disturbance of viable trees to be retained according to the tree inventory and report; and (c) trees being removed for proposed development or trees being removed that are not viable. If a tree inventory is not required, the site plan must show the approximate location of significant trees, their size (diameter-at-breast-height) and their species, along with the location of structures, driveways, access ways and easements. The plan shall include size (diameter-at-breast-height), species, and condition of each tree. For large undeveloped sites or tree removal within NGPEs with a Tree Plan IV, the plan must only show the surrounding trees that would be impacted by the tree removal. Identification of trees to be removed should be indicated, including reasons for their removal and a description of removal techniques pursuant to this section.
- (4) For required replacement trees, a planting plan must be submitted showing location, size and species of the new trees in accordance to standards set forth in this section.
- (5) A description and location of tree protection measures during construction for trees to be retained must be shown on demolition, drainage and grading plans. Protection measures must be in accordance with WMC 21.15.080.
- (6) Prior to permit approval, the applicant shall provide a plan showing tree density calculations pursuant to this section, retained trees, trees to be removed, and any required supplemental trees to meet the minimum density.
- (7) The applicant shall submit a preservation and maintenance agreement pursuant to WMC 21.15.100, for approval prior to occupancy, recording or final inspection.

## (iii) Tree Density Requirements.

Requirement	Tree Plan I	<del>Tree Plan II</del>	Tree Plan III	Tree Plan IV
Tree Density Requirements	The minimum tree density shall apply to the site to Tree Plan I – Major. Tree Plan I – Minor shall provide either the lesser of the minimum tree density, or 50 percent greater tree credit than currently exists if the site is nonconforming. If the site currently has zero credits, a total of 10 credits or 10 credits per acre will be required.*	<del>The minimum tree density shall apply to all Tree Plan II. Tree Plan II for tenant improvements to existing buildings where the applicability requirements of WMC 21.15.020(2) are exceeded shall provide either the lesser of the minimum tree density or 50 percent greater tree credit than currently exists if the site is nonconforming. If the site currently has zero credits, a total of 10 credits or 10 credits per acre will be required.*</del>	The minimum tree density shall apply to all Tree Plan III.	Tree Plan IV shall provide either the lesser of the minimum tree density or 50 percent greater tree credit than currently exists if the site is nonconforming. If the site currently has zero credits, a total of 10 credits or 10 credits per acre will be required.*

\* Fifty percent greater tree credits: Tree credits currently provided x 1.5 = required tree credits.

(4) Qualified Tree Professional Reports. Reports prepared by a qualified tree professional shall contain the following information, unless waived by the City Tree Official. In cases where the City Tree Official does not agree with the qualified tree professional's determination, the City Tree Official may seek a third party review, to be reimbursed by the applicant according to the City's current fee schedule. For all permits and approvals requiring a report prepared by a qualified tree professional, the costs of the services of the professional shall be paid by the applicant.

- Tree Board Recommended Language Addition: "Unless the applicant's arborist determination prevails and then the cost of the third party report will be reimbursed by the City."
- Staff Recommends this language not be added
  - (a) A complete description of each tree's health and viability. If a tree is not viable for retention, the reason(s) must be soundly based on health, high risk of failure due to structure, defects, unavoidable isolation (windfirmness), or suitability of species and for which no reasonable alternative action is possible (pruning, cabling, etc.). The impact of necessary tree removal to remaining trees, including those in a grove or on adjacent properties, must also be discussed.

(b) The location of limits of disturbance around all trees potentially impacted by site disturbances and any special instructions for work within that protection area (hand-digging, tunneling, root pruning, maximum grade change, etc.).

(c) For development applications, a discussion of timing and installation of tree protection measures that must include fencing and be in accordance with the tree protection standards as outlined in this section.

(d) The suggested location and species of supplemental trees to be used when required. The report shall include planting and maintenance specifications pursuant to WMC 21.15.090 and 21.15.100.

(5) Tree Plan Review Procedure and Appeals.

(a) When an applicant proposes a development activity or project that requires a Level I, II or III Tree Plan, the tree plan shall be reviewed as part of the applicable permit application or process.

(b) Applicants for a Level IV Tree Plan must submit a completed permit application on a form provided by the City. Within 21 calendar days, the City Tree Official shall review the application and either approve, approve with conditions or modifications, deny the application, or request additional information. Any decision to deny the application shall be in writing along with the reasons for the denial and the appeal process. For Level IV Tree Plans for removal of hazard or nuisance trees, the City Tree Official shall review the application and either approve, approve with conditions or modifications, deny the application, or request additional information, within five days of submittal. Any additional information needed for tree inventory information not available at permit submittal or for replanting requirements, the City Tree Official may add these items as conditions of approval; the additional information, inventory and a replanting plan shall be submitted within two weeks of permit issuance, with all replanting occurring within 12 months of permit issuance.

(c) With respect to Level IV Tree Plans, an applicant may appeal an adverse determination to the Hearing Examiner. A written notice of appeal shall be filed with the Development Services Department within 14 calendar days following the postmark date of distribution of a City Tree Official's decision. The City shall give notice of the hearing pursuant to Chapter 17.09 WMC. The applicant shall have the burden of proving that the City Tree Official made an incorrect decision. Based on the Hearing Examiner's findings and conclusions, he or she may affirm, reverse or modify the decision being appealed. The decision of the Hearing Examiner may be reviewed in County Superior Court using the standards set forth in RCW 36.70C.130. The land use petition must be filed within 21 calendar days of the issuance of the final land use decision by the Hearing Examiner.

(6) Tree Plan Review Standards.

(a) Site Design for Development. Tree retention shall be pursuant to this chapter; provided, that such tree retention may use the priority trees listed below and may apply for alternative compliance under WMC 21.15.040. Tree plans shall comply with all other tree retention requirements in the Woodinville Municipal Code, including but not limited to those in Chapter 21.24 WMC, Development Standards – Critical Areas.

(i) Tree Retention Standards.

(A) Based on the tree plan information submitted by the applicant, the applicant's qualified tree professional, and the City Tree Official's evaluation of the trees and proposed development on subject property, the City Tree Official will

designate each tree as a Type 1, 2 or 3 tree according to the criteria below. The priority shall be that Type 1 trees are preserved as far as is practicable.

(B) Table 21.15.060-2 – Tree Types.

Type 1 Tree	Type 2 Tree	Type 3 Tree
<p>A viable tree that is determined to be healthy and windfirm by a qualified tree professional, and provided the trees can be safely retained when pursuing alternatives to development standards, and meets at least one of these criteria:</p> <ul style="list-style-type: none"> <li>(a) Heritage trees;</li> <li>(b) Specimen trees;</li> <li>(c) Tree groves and associated vegetation that are to be set aside as preserved groves pursuant to WMC 21.15.100;</li> <li>(d) Wildlife habitat regulated under WMC 21.24.410 through 21.24.440;</li> <li>(e) Trees in geologically hazardous areas as regulated under WMC 21.24.290 through 21.24.310;</li> <li>(f) Trees that are more than 75 years old or have a diameter-at-breast-height of at least 20 inches; or</li> <li>(g) Trees that are a part of a grove that extends into abutting property, such as in a public park, open space, sensitive area buffer or otherwise preserved group of trees on adjacent private property. If significant trees must be removed in these situations, an adequate buffer of trees may be required to be retained or planted on the edge of the remaining grove to help stabilize the remaining trees.</li> </ul>	<p><del>A viable tree that is to be retained if feasible.</del></p> <p><u>A tree that is either (a) not viable or (b) is in an area where removal is unavoidable due to the anticipated development activity.</u></p>	<p><del>A tree that is either (a) not viable, or (b) is in an area where removal is unavoidable due to the anticipated development activity.</del></p>

(C) At the discretion of the City Tree Official, damaged or diseased or standing dead trees may be preserved and credited toward the tree preservation requirement if demonstrated that such trees will provide important wildlife habitat and are not classified as a hazard or nuisance tree. Hazard or nuisance trees may be felled to prevent hazardous conditions.

(ii) Incentives and Variations to Development Standards. In order to retain trees, the applicant should pursue provisions in Woodinville’s codes that allow development standards to be modified. The City Tree Official, Public Works Director, Parks and Recreation Director and Fire Marshal may review and recommend to the City Council what development standards may be modified to retain existing trees.

(iii) Additional Variations. In addition to the variations described above, the City Tree Official is authorized to require site plan alterations to retain Type 1 trees. Such alterations include minor adjustments to the location of building footprints, parking, driveways and access ways, and/or walkways, easements or utilities.

(b) Nuisance Tree Criteria. A qualified tree professional ~~with tree risk assessment certification (ISA)~~ shall provide documentation that a nuisance tree meets the following criteria. For nuisance tree evaluation, the qualified professional is not required to have tree risk assessor certification. The City Tree Official or his or her designated staff may waive the requirement for such documentation when he/she determines that the criteria have clearly been met.

(i) Tree is causing obvious, physical damage to private or public structures, including but not limited to: sidewalk, curb, road, driveway, parking lot, building foundation or roof;

(ii) Tree has been damaged by past maintenance practices that cannot be corrected with proper arboricultural practices;

(iii) Tree is predisposed to fungus diseases, or chronic diseased tree, that would require annual spraying;

(iv) There is overcrowding or overplanting; or

(v) The problems associated with the tree must be such that they cannot be corrected by any other reasonable practice, including but not limited to the following:

(A) Pruning of the crown or roots of the tree.

(B) Small modifications to the site including but not limited to moving a driveway, parking lot, patio or sidewalk to alleviate the problem.

(C) Pruning, bracing, or cabling to reconstruct a healthy crown.

(c) Hazard Tree Criteria. A qualified tree professional ~~with tree risk assessment certification~~ shall provide documentation that a hazard tree meets the following criteria. The City Tree Official or his or her designated staff may waive the requirement for such documentation when he/she determines that the criteria have clearly been met.

(i) The tree must have a combination of structural defects and/or disease which makes it subject to a high probability of failure and is in proximity to moderate-high frequency of persons or property; and

(ii) The hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices nor can the persons or property be removed.

(d) Trees in Critical Areas or Critical Area Buffers. The intent of preserving vegetation in and near streams and wetlands and in geologically hazardous areas is to support the functions of healthy critical areas and their buffers and/or avoid disturbance of geologically hazardous areas (see Chapter 21.24 WMC). The property owner must submit a Level IV Tree Plan to City Development Services Department to trim or fell any tree from a critical area or critical area buffer. If a tree is considered a nuisance or hazard in a critical area or its buffer, the priority action is to create a “snag” or wildlife tree with the subject tree. If creation of a snag is not feasible, then the felled tree shall be left in place unless the City Tree Official permits its removal in writing. The felling of any tree ~~will~~ may require the replanting of an equivalent amount of tree credits in conformance with the tree planting requirements of WMC 21.15.070(2), which may be modified by the City Tree Official

based on the recommendation of a qualified tree professional; when 10 or less trees are removed, a qualified tree professional may determine that the same amount of functionality of the area can be achieved without replanting by demonstrating that the following criteria can be met of (a) leaving a snag or (b) leaving a felled tree to create new habitat, then no replanting may be required. Otherwise, if: (i) the lesser number of tree credits will provide equal or better functionality in the critical area; (ii) there is a minimum replanting of 50 percent of the required tree credits; (iii) a coverage analysis is submitted stating that the replanted trees will have equal or better coverage than the trees removed within five years; (iv) understory plantings are also installed; (v) a replanting site plan is submitted, reviewed and approved. Replanted trees shall be planted in proximity to where the felled tree was located. Selection of native species is required, replanting the same species as the removed trees is preferred, and timing of installation shall be approved by the City Tree Official. If more than two trees are removed, the City Tree Official may require an approval pursuant to Chapter 21.24 WMC regarding alteration of critical areas.

(e) Trees Located in Residential Subdivisions Under Common Ownership, Excluding Critical Areas or Critical Area Buffers. The property owner must submit a Level IV Tree Plan to the City to fell any tree owned in common. The felling of any tree located in areas owned commonly shall have the option of either: (i) replanting an equal number of tree credits in conformance with the tree planting requirements of WMC 21.15.070(2); or (ii) providing a tree inventory documenting that the tree credit density has been met.

**21.15.070 Tree density.**

(1) Introduction. The requirement to meet minimum tree density applies to new developments and major redevelopments, and new subdivisions and short subdivisions. If such a site falls below the minimum density with existing trees, supplemental planting shall be required. A tree density for existing trees to be retained is calculated to determine if new trees are required in order to meet the minimum density for the site. Supplemental tree location priority is set as well as minimum size of supplemental trees to meet the density.

(2) Tree Density Requirement.

(a) Minimum Tree Density Requirement Established. Undeveloped sites and developed sites subject to the tree density requirements pursuant to WMC 21.15.020 shall meet the required minimum tree density as follows:

Table 21.15.070(a) Minimum Tree Density Requirement

<u>Zoning</u>	<u>Tree Credits Required Per Acre</u>
<u>R6-R8</u>	<u>20</u>
<u>R-4</u>	<u>40</u>
<u>R-1</u>	<u>60</u>

~~(i) Sixty tree credits per acre, except as required under subsection (2)(a)(ii) of this section;~~

~~(ii) Single family residential lots less than 7,200 square feet and lots in the Central Business District shall meet the required minimum tree density of 30 tree credits per acre.~~

(b) For existing residential subdivisions with Native Growth Protection Easements (NGPEs), the tree credits within the NGPE may be counted where the homeowner’s association or owner of the NGPE has determined the number of tree credits that exist within the NGPE; the remaining tree credits required for the entire subdivision to meet the minimum tree density will be equally divided among the total number of lots. Where the tree credits in the NGPE have not been determined, the minimum tree density shall apply to each lot within the subdivision.

(c) The tree density consists of existing trees pursuant to the priority established in this section, supplemental trees or a combination of existing and supplemental trees pursuant to this section. Existing trees transplanted to an area on the same site shall not count toward the required density unless approved by the City Tree Official based on transplant specifications provided by a qualified tree professional that will ensure a good probability for survival.

(d) Tree Density Calculation. For the purpose of calculating required minimum tree density, City right-of-way, and areas to be dedicated as City right-of-way, shall be excluded from the lot area used for calculation of tree density. Tree density calculation for existing individual trees is calculated by multiplying the tree credits based on the diameter-at-breast-height multiplied by the species multiplier:

(i) Diameter-at-breast-height of the tree shall be measured in inches. Existing trees that are rooted and established are measured 4.5 feet off the ground; new plantings are measured 6 inches off the ground, per arborist standards this is measured in caliper. The measured diameter-at-breast-height shall be its size at the time of measurement, except as provided in subsection (2)(f) of this section.

(ii) The tree credit value that corresponds with diameter-at-breast-height shall be found in Table 21.15.070(2)(d): The species multiplier is based on the size of canopy for a mature tree of that species, as listed in the Woodinville Plant Species List. The multipliers shall be as follows:

- (A) ~~Tree species that have a canopy of 34 feet or less in diameter at maturity (small trees), the multiplier shall be 0.75;~~
- (B) ~~Tree species that have a canopy of 35 feet to 44 feet in diameter at maturity (medium trees), the multiplier shall be 1.0; and~~
- (C) ~~Tree species that have a canopy of 45 feet or greater in diameter at maturity (large trees), the multiplier shall be 1.2.~~

~~(iii) Table 21.15.070 – Tree Density Calculation (Diameter-at-Breast-Height).~~

**Table 21.15.070(2)(d) – Tree Density Calculation (Diameter-at-Breast-Height)**

Diameter-at-Breast-Height (inches)		Total Credit
From:	To:	
1.0	<del>2.0</del> 9.0	<del>0.25</del> 0.5
2.1	3.7	0.50

**Table 21.15.070(2)(d) – Tree Density Calculation (Diameter-at-Breast-Height)**

Diameter-at-Breast-Height (inches)		Total Credit
From:	To:	
3.8	6.6	0.75
6.7 <u>9.1</u>	10.1 <u>15.0</u>	1.25 <u>2.0</u>
10.2	15.2	1.75
15.3 <u>15.0</u>	26.0 <u>23.1</u>	4.0
19.3	23.1	3.25
23.2	26.0 <u>36.0</u>	4 <u>6.0</u>
26.1	29.0	5
29.1	32.0	6
32.1	34.0	7
34.1	36.0	8
36.1	39.0 <u>50.0</u>	9-11.0
39.1	42.0	10
42.1	46.0	12
46.1	50.0	14
50.1 <u>and above</u>	54.0	16 <u>20.0</u>
54.1	58.0	18
58.1	62.0	20
62.1	66.0	22
≥ 66.1		24

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

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

(A) On-Site. The preferred locations for new trees are:

1. In preserved groves, critical areas or their buffers.

2. Adjacent to storm water facilities as approved by the Public Works Director under Chapter 14.09 WMC.

3. Entrance landscaping, traffic islands and other common areas in residential subdivisions that have enough area to support a mature tree of that species, as listed in the City of Woodinville Plant Species List.

4. Site perimeter.

5. On individual residential building lots.

(B) Off-Site. When room is unavailable for planting the required trees on-site, or planting on-site would create nuisance or hazard trees, then they may be planted at another City Tree Official approved location in the City. The site chosen shall be in the same neighborhood, as designated in the Comprehensive Plan, as the subject site whenever possible.

(C) City Tree Fund. When the City Tree Official determines on-site and off-site locations are unavailable, then the applicant shall pay an amount of money approximating the current market value of the supplemental trees plus an additional 50 percent for maintenance, into the City tree fund.

(D) Alternative Compliance. If alternative compliance is proposed, the requirements of WMC 21.15.040 shall apply. The remaining tree credits required shall follow the steps outlined above in subsections (2)(e)(i)(A), (B), and (C) of this section.

(E) If best management practices determined by an ISA certified risk assessment arborist recommend that due to diseased soil, or other pest infestations, that the full tree credits required to be planted be delayed or not replanted for a specified period of time, this will be permitted at the discretion of the City Tree Official; in order to ensure the long-term health and survival of the trees in the vicinity and to prevent the spread of disease. Alternative compliance may be required at the discretion of the City Tree official; and replacement trees may be planted on another site approved by the City Tree Official, when a certified arborist finds and the City Tree Official concurs, that replacing trees on the original site will result in increased likelihood of the trees not surviving.

(ii) Minimum Size and Tree Density Value for Supplemental Trees. The tree density shall be based on Table 21.15.070(2)(d) ~~with the multipliers described~~. The required minimum size of the supplemental tree two-inch diameter-at-breast-height trees for deciduous and evergreen trees. The installation and maintenance shall be pursuant to WMC 21.15.090 and 21.15.100 respectively.

(iii) Tree Species for Supplemental Trees. The tree species chosen for supplemental trees shall either be trees of the same mix of species as the canopy that has been removed, or native species as listed in the Woodinville Plant Species List.

Replacement trees shall be a mix of species.

~~(f) Incentive for Planting a Mix of Native Species. The applicant has the option of choosing to plant a mix of native species and planting selected species to avoid overplanting. For those species identified in the Woodinville Plant Species List with five year growth rates, and where a two-inch diameter-at-breast height tree is planted, those trees shall be allowed to count the credit of the tree after the fifth year of growth. This means that if the tree is two inches at the time of planting, but will be eight inches after a five-year period, that tree will be eligible for the eight-inch diameter-at-breast height tree credit at the time of~~

planting. The five-year growth rates may also be identified by a qualified tree professional, subject to review and approval by the City Tree Official.

(i) For those applications that utilize this incentive, and are subject to a Level II or III Tree Plan, the required five-year maintenance period shall also include annual monitoring to be completed by the arborist who completed the initial report.

Monitoring shall consist of a site visit with the City Tree Official, determination of corrective actions or additional plantings necessary to meet the tree credits, and a report on the findings for that year. The annual monitoring requirements shall be completed within 30 days of the anniversary of the date of issuance of the certificate of occupancy, final inspection or final approval of a subdivision or short subdivision.

(ii) For those applications that utilize this incentive, and are subject to a Level I or IV Tree Plan, the required five-year maintenance period shall also include annual monitoring to be completed by the applicant. Monitoring shall consist of a site visit with the City Tree Official, and determination of corrective actions or additional plantings necessary to meet the tree credits. The annual monitoring requirements shall be completed within 30 days of the anniversary of the date of issuance of the certificate of occupancy, final inspection or final approval.

(fg) Incentive for Preserving Existing Trees. Where a qualified tree professional has determined that an existing tree will be capable of long-term survival, the City Tree Official may authorize credit against the permit fee, if the tree is retained and survives the five-year maintenance period.

#### **21.15.080 Tree protection during construction.**

(1) Introduction. The importance of effective protection of retained trees and the understory of trees during construction is emphasized with specific protection standards in the last part of this section. These standards must be adhered to and included on demolition, grading and building plans as necessary.

(2) Tree Protection during Development Activity. Prior to development activity or initiating tree removal on the site, vegetated areas, groves and individual trees to be preserved shall be protected from potentially damaging activities pursuant to the following standards. A meeting on-site between the City Tree Official or designee and the contractor shall be held to determine that these standards have been met, prior to site disturbance.

(a) Protected Area. A protected area shall be established that shall be measured to include the area five feet beyond the dripline of all retained trees.

(b) Placing Materials Near Trees. No person may conduct any activity within the protected area of any tree designated to remain, including, but not limited to, operating or parking equipment, placing solvents, storing building material or soil deposits, or dumping concrete washout or other chemicals. During construction, no person shall attach any object to any tree designated for protection.

(c) Protective Barrier. Prior to any development, land clearing, filling or any land alteration, the applicant shall:

(i) Erect and maintain readily visible temporary protective fencing along the limits of disturbance which completely surrounds the protected area of all retained trees or groups of trees and their understory. Fences shall be constructed of chain link and be at least four feet high, unless other type of fencing is authorized by the City Tree

Official. The Director shall establish and maintain a fencing detail for applicants to use.

(ii) Install highly visible signs spaced no further than 15 feet along the entirety of the protective tree fence. Said sign must be approved by the City Tree Official and shall state at a minimum “Tree Protection Area, Entrance Prohibited” and provide the City phone number for code enforcement to report violations. The Director shall establish and maintain a signage detail for applicants to use.

(iii) Prohibit excavation or compaction of earth or other potentially damaging activities within the barriers; provided, that the City Tree Official may allow such activities approved by and under the supervision of a qualified tree professional retained and paid for by the applicant.

(iv) Maintain the protective barriers in place until the City Tree Official authorizes their removal, which shall not be prior to completion of major site development.

(v) Ensure that any approved landscaping done in the protected area subsequent to the removal of the barriers shall be accomplished with light machinery or hand labor.

(vi) In addition to the above, the City Tree Official may require the following as site conditions require:

(A) If equipment is authorized to operate within the critical root zone, the areas adjoining the critical root zone of a tree shall be covered with mulch to a depth of at least six inches, or with plywood, metal or similar material in order to protect roots from damage caused by heavy equipment.

(B) Minimize root damage by excavating a two-foot-deep trench, at edge of critical root zone, to cleanly sever the roots of trees to be retained.

(C) Corrective pruning performed on protected trees in order to avoid damage from machinery or building activity.

(D) Maintenance of trees throughout construction period by watering.

(d) Grade.

(i) The grade shall not be elevated or reduced within the critical root zone of trees to be preserved without the City Tree Official’s authorization based on recommendations from a qualified tree professional. The City Tree Official may allow coverage of up to one-half of the area of the tree’s critical root zone with light soils (no clay) to the minimum depth necessary to carry out grading or landscaping plans, if it will not imperil the survival of the tree. Aeration devices may be required to ensure the tree’s survival.

(ii) If the grade adjacent to a preserved tree is raised such that it could slough or erode into the tree’s critical root zone, it shall be permanently stabilized to prevent suffocation of the roots.

(iii) The applicant shall not install an impervious surface within the critical root zone of any tree to be retained without the authorization of the City Tree Official.

Alternatives to installing impervious surface within the critical root zone, such as a meandered sidewalk or shifting improvements, shall be considered prior to approval of installation of impervious surface within the critical root zone. The City Tree 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.

- (iv) Utility trenches should be located outside of the critical root zone of Type 1 trees. If utilities must be placed within the critical root zone, the applicant's qualified tree professional shall establish to the satisfaction of the City Tree Official that the design will adequately support the long-term viability of the trees.
- (v) 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.
- (e) Directional Felling. Directional felling of trees shall be used to avoid damage to trees designated for retention. Any trees designated for preservation, per the approved tree plan, that are significantly damaged or destroyed during felling of trees approved for removal shall be replaced per WMC 21.15.070(2).
- (f) Additional Requirements. The City Tree Official may require additional tree protection measures that are consistent with accepted urban forestry industry practices.

#### **21.15.090 Installation standards for required tree plantings.**

- (1) All required trees shall be installed according to sound horticultural practices in a manner designed to encourage quick establishment and healthy plant growth. All required trees shall be installed in the ground and not in above-ground containers. When an applicant proposes to locate a subterranean structure under required trees that appears to be at grade, the applicant will: (a) provide site-specific documentation prepared by a qualified expert to establish that the design will adequately support the long-term viability of the required trees; and (b) 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 County Recorder's Office.
- (2) Compliance. It is the applicant's responsibility to show that the proposed tree plan complies with the regulations of this chapter.
- (3) Timing. All trees shall be installed prior to the issuance of a certificate of occupancy or plat recording, except that the installation of any required tree may be deferred during the summer months to the next planting season, but never for more than six months. Deferred installation shall be secured with a performance security pursuant to Chapter 15.42 or 20.06 WMC prior to the issuance of a certificate of occupancy or plat recording.
- (4) Grading. Berms shall not exceed a slope of two horizontal feet to one vertical foot (2:1).
- (5) Soil Specifications. Soils in planting areas shall have adequate porosity to allow root growth. Soils which have been compacted to a density greater than one and three-tenths grams per cubic centimeters shall be loosened to increase aeration to a minimum depth of 24 inches or to the depth of the largest plant root ball, whichever is greater. Imported topsoils shall be tilled into existing soils to prevent a distinct soil interface from forming. After soil preparation is completed, motorized vehicles shall be kept off to prevent excessive compaction and underground pipe damage. The organic content of soils in any planting area shall be as necessary to provide adequate nutrient and moisture-retention levels for the establishment of plantings.
- (6) Tree Selection.
  - (a) Tree selection shall be consistent with the City of Woodinville Plant Species List or the Critical Area Plant List if within a critical area or buffer, which is produced by the City's Development Services Department and available at City Hall.

(b) Trees shall be selected and sited to produce a hardy and drought-resistant landscape area. Selection shall consider soil type and depth, the amount of maintenance required, spacing, exposure to sun and wind, the slope and contours of the site, and compatibility with existing native vegetation preserved on the site. Preservation of existing vegetation is strongly encouraged.

(c) Prohibited Materials. Plants listed as prohibited in the Woodinville Plant Species List are prohibited for required tree plantings. Additionally, there are other plants that may not be used if identified in the Woodinville Plant Species List as potentially damaging to sidewalks, roads, underground utilities, drainage improvements, foundations, or when not provided with enough growing space.

(d) All trees shall conform to American Association of Nurserymen (AAN) grades and standards as published in the American Standard for Nursery Stock Manual.

(e) Trees shall meet the minimum size standards established in other sections of the WMC.

(f) Multiple-stemmed trees may be permitted as an option to single-stemmed trees; provided, that such multiple-stemmed trees are at least 10 feet in height and that they are approved by the City Tree Official prior to installation.

(7) Fertilization. Fertilization of trees planted shall be by special approval of the City Tree Official only.

(8) Irrigation. Irrigation shall be required for any tree planting completed pursuant to this section. 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. For each option irrigation shall be designed to conserve water by using the best 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 trees. Exceptions, as approved by the City Tree Official, to the irrigation requirement may be approved xeriscape (i.e., low water usage plantings), plantings approved for low impact development techniques, established indigenous plant material, or 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 tree plan.

(b) Option 2. An irrigation system designed and certified by a licensed landscape architect as part of the tree 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. If the applicant chooses this option, an inspection will be completed by City staff one year after plat recording or certificate of occupancy to ensure that the trees have become established. Corrective actions pursuant to WMC 21.15.100 may be required at the time of the one-year inspection.

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

## (10) Mulch.

(a) Required plantings shall be covered with two 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 inches away from the trunks of shrubs and trees.

(11) Protection. All required trees 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., shall be required as needed to protect required trees.

**21.15.100 Tree maintenance requirements.**

(1) The following maintenance requirements apply to all trees the City requires to be planted or preserved for projects subject to Tree Plan III and Tree Plan II:

(a) Responsibility for Regular Maintenance. Required trees shall be considered as elements of the project in the same manner as parking, building materials, landscaping, fences, walls, and other site details. The applicant, landowner, or successors in interest shall be responsible for the regular maintenance of required trees. Trees that die and are removed shall be replaced in kind by the property owner. The timing of the replacement planting shall be determined by the City Tree Official and a qualified tree professional.

(b) Maintenance Duration. Maintenance shall be ensured in the following manner except as set forth in subsections (1)(c) and (d) of this section:

(i) All required trees shall be maintained throughout the life of the development. ~~Prior to issuance of a certificate of occupancy or plat recording, the proponent shall provide a final as-built tree plan and an agreement to maintain and replace all trees that are required by the City.~~

(ii) Any existing tree, tree designated for preservation, or planted tree shall be maintained for a period of five years following issuance of the certificate of occupancy or plat recording for the individual lot or development. A maintenance guarantee pursuant to Chapter 15.42 or 20.06 WMC shall be secured to ensure the maintenance.

~~(c) Maintenance of Preserved Grove. Any applicant who has a grove of trees identified for preservation on an approved tree plan pursuant to WMC 21.15.060 shall provide prior to occupancy or plat recording the legal instrument acceptable to the City to ensure preservation of the grove and associated vegetation in perpetuity, except that the agreement may be extinguished if the City Tree Official determines that preservation is no longer appropriate.~~

~~(cd) Non-native Invasive and Noxious Plants. It is the responsibility of the property owner to remove non-native invasive plants and noxious plants from the vicinity of any tree or other vegetation that the City has required to be planted or retained. Removal must be performed in a manner that will not harm the tree or other vegetation that the City has required to be planted or protected.~~

~~(de) Pesticides, Herbicides, and Fertilizer. The use of pesticides, herbicides or fertilizer shall be by special approval of the City Tree Official only.~~

(2) Tree Plans and Utility Plans. Tree plans and utility plans shall be coordinated. In general, the placement of trees should adjust to the location of required utility routes both above and below ground. Location of trees shall be based on the plant's mature size both above and below ground. See the Woodinville Plant Species List for additional standards.

(3) Tree Pruning. Topping or pruning to the extent that would constitute tree removal as defined in Chapter 21.06 WMC is not allowed. If a required tree smaller than six inches in diameter-at-breast-height is topped, it must be replaced pursuant to the standards in WMC 21.15.120. If a tree six inches or larger in diameter-at-breast-height is topped, the property owner may be subject to enforcement actions pursuant to WMC 21.15.120. Trees may be windowed or limbed up using best management practices. This method of tree pruning shall maintain the health of the tree.

(4) Table 21.15.100 – Pruning Techniques. The following techniques for healthy pruning shall be used. No permit is required for pruning; however, all pruning should be done under the direction of a qualified tree professional.

**Table 21.15.100 – Pruning Techniques**

<b>Healthy Pruning Techniques</b>	<b>Improper Pruning Techniques</b>
<b>Crown Cleaning</b> – removing dead, dying, diseased, crowded, weakly attached, or low-vigor branches, in a manner that should not reduce the canopy.	<b>Topping</b> – the cutting of a trunk or main branch to the point where there is no branch large enough and vigorous enough to become the new leader.
<b>Crown Thinning</b> – selective removal of branches throughout the crown of the tree to improve interior light and air. Remaining branches should be well-distributed and balanced.	<b>Stripping</b> – removing the branches from the inner section of the trunk or branch. Can cause structural imbalances and potential failure.
<b>Crown Raising</b> – removal of the lower branches of the tree to provide height clearance, typically 8 feet for pedestrians and 16 feet for vehicles.	<b>Imbalance</b> – removing portions of the tree and creating an imbalance in the structure of the tree. Can cause cracking damage from the wind through twisting; or weak new growth.
<b>Windowing</b> –	<b>Excessive Pruning</b>

**Table 21.15.100 – Pruning Techniques**

<b>Healthy Pruning Techniques</b>	<b>Improper Pruning Techniques</b>
removing several branches symmetrically within an area of the tree's crown to enhance views.	– removing portions of the tree to a point where it can kill the tree. Can invite decay and disease.

**21.15.110 Prohibited vegetation.**

- (1) Plants listed as prohibited in the Woodinville Plant Species List shall not be planted in the City.
- (2) The adopted King County Noxious Weed List, as amended, is hereby adopted by reference. Plants on this list shall not be planted in the City.

**21.15.120 Enforcement and penalties.**

(1) Intent. These enforcement and penalty provisions have several purposes. First, they are intended to discourage damage or removal of significant trees above and beyond what is permitted under this chapter. Second, these enforcement and penalty provisions are intended to provide complete and effective restoration of areas in which violations of this chapter occur. Finally, these regulations are intended to provide a clear and efficient process for addressing violations of this chapter.

The City may utilize one or more of several remedies when responding to violations of this chapter. In almost all cases where a violation has occurred, the City will issue a civil citation. If the acts that constitute a violation appear to be ongoing, the City may also issue a notice of cease and desist. Failure to adhere to a notice to cease and desist will result in imposition of additional civil penalties. If there is a pending development or building permit, the City may also issue a stop work order or withhold issuance of permit approval or a certificate of occupancy. Finally, additional fines may be imposed if a violator does not follow through in a timely manner with restoration work or other compliance issues.

**(2) General Requirements.**

(a) Enforcement shall be conducted in accordance with the administrative code enforcement procedures and special enforcement provisions related to tree conservation set forth below. To the extent there is a conflict between the provisions of this section and Chapter 1.06 WMC, this section shall control.

(b) Voluntary compliance is the preferred method of enforcement. The following remedies should only be pursued when a violator is not voluntarily complying with the restoration requirements, when other requirements are stipulated by the Code Enforcement Officer or City Tree Official, or when the violator did knowingly act in a manner contrary to the requirements of this code.

(3) Authority. It shall be the duty of the City Tree Official, or designee, to administer the provisions of this chapter. The City Tree Official shall have authority to enforce and carry out the provisions of this chapter.

(4) Cease and Desist. The City Tree Official, or designee, may issue a notice to cease and desist using the procedure set forth in WMC if the City Tree Official finds that a violation of this code has occurred. Continued illegal tree activity following issuance of a cease and desist from the City for the tree activity shall result in fines of \$1,000 per day of continued activity.

(5) Stop Work Order. If a violation of this chapter or an approved tree plan occurs on property on which work is taking place pursuant to a City of Woodinville development or building permit, the City Tree Official, or designee, may suspend some or all of the work as appropriate through issuance of a stop work order. The City Tree Official, or designee, shall remove the stop work order when the City Tree Official determines that the violation has been corrected or when the City Tree Official has reached an agreement with the violator regarding rectification of the violation. Any stop work order issued under this section may be appealed using the procedures set forth in Chapter 2.30 WMC.

(6) Notification of Violation. The City's Code Enforcement Officer shall notify a person who violates this chapter; such notification shall also include a statement of the restoration action required to be taken to correct the violation as determined by the City Tree Official.

(7) Civil Penalty.

(a) A person who fails to comply with the requirements of this chapter or the terms of a permit issued hereunder, who undertakes an activity regulated by this chapter without obtaining a permit, or fails to comply with a cease and desist or stop work order issued under this chapter shall also be subject to a civil penalty as set forth in Table 21.15.120. Each unlawfully removed or damaged tree shall constitute a separate violation.

(b) Any person who aids or abets in the violation shall be considered to have committed a violation for purposes of the civil penalty.

(c) The amount of the penalty shall be assessed in accordance with Table 21.15.120. The City Tree Official may elect not to seek penalties if he or she determines that the circumstances do not warrant imposition of civil penalties in addition to restoration.

(d) Table 21.15.120 – Penalties.

**Table 21.15.120 – Penalties**

<b>Types of Violations</b>	<b>Allowable Fines per Violation</b>
1. Removal of tree(s) approved to be removed, but prior to final tree plan approval or issuance of a City tree removal permit	\$1,000 per tree
2. Removal or damage of tree(s) that are or would be shown to be retained on an approved tree plan or any other violation of approved tree protection plan	\$1,000 per tree
3. Removal of tree(s) without applying for or obtaining a required City permit	\$1,000 per tree

(8) Tree Restoration.

(a) Violators of this chapter or of a permit issued thereunder shall be responsible for restoring unlawfully damaged areas in conformance with a plan, approved by the City Tree Official, which provides for repair of any environmental and property damage, and restoration of the site; and which results in a site condition that, to the greatest extent practical, equals the site condition that would have existed in the absence of the violation(s). In cases where the violator intentionally or knowingly violated this chapter or has committed previous violations of this chapter, restoration costs, at the discretion of the City Tree Official, may be based on the City-appraised tree value of the subject trees in which the violation occurred, utilizing the industry standard trunk formula method in the current edition of "Guide for Plant Appraisal." If diameter of removed tree is unknown, determination of the diameter size shall be made by the City Tree Official by comparing size of stump and species to similar trees in similar growing conditions. The amount of costs above the approved restoration plan will be paid into the City tree fund.

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

(i) The number of trees required to be planted is equal to the number of tree credits of illegally removed trees according to Table 21.15.070.

(ii) The minimum size for a tree planted for restoration shall be as required under WMC 21.15.070(2).

(iii) In the event the violators cannot restore the unlawfully removed or damaged trees due to current or future development activity or other site conditions as determined by the City Tree Official, the violators shall make payment to the City tree fund. Unless otherwise determined to base the restoration costs on appraised value, the amount paid will be the City's unit cost for a restoration tree multiplied by the number of outstanding tree credits plus 50 percent for maintenance. The City's unit cost is based on the current market cost of purchase, installation and five-year maintenance for a minimum-sized tree for restoration.

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

(9) Failure to Restore or Pay Fines.

(a) Prohibition of Further Approvals. The City shall not approve any application for a subdivision, short subdivision, or any other development permit or approval or issue a certificate of occupancy for property on which a violation of this chapter has occurred until the violation is cured by restoration or other means accepted by the City Tree Official and by payment of any penalty imposed for the violation.

## Definitions Relating to Tree Code

### **21.06.063 Broadleaf tree.**

Broadleaf tree: a tree characterized by leaves that are broad in width and may include both deciduous and evergreen species.

### **21.06.101 City Tree Official.\***

City Tree Official: the Development Services Director or his/her designees responsible for implementing the Community Urban Forestry Plan and Regulations. The City Tree Official shall use the expertise of a certified arborist, under contract by the City, for technical advice on decisions related to the community urban forest.

### **21.06.139 Critical root zone.**

Critical root zone: the area surrounding a tree at a distance from the trunk, which is equal to one foot for every inch of tree diameter-at-breast-height or otherwise determined by a qualified tree professional.

### **21.06.140 Crown.**

Crown: the area of a tree containing leaf- or needle-bearing branches.

### **21.06.143 Deciduous.**

Deciduous: a plant species with foliage that is shed annually.

### **21.06.168 Diameter-at-breast-height.**

Diameter-at-breast-height: tree measurement guideline that is the measure in inches of the trunk diameter of each established tree that is ~~protected or preserved tree~~ 4.5 feet above the ground line. New plantings are to be measured at six inches above the ground, per arborist standards this is measured in caliper.

### **21.06.174 Dripline.**

Dripline: the distance from the tree trunk, that is equal to the furthest extent of the tree's crown.

### **21.06.220 Evergreen.**

Evergreen: a plant species with foliage that persists and remains green year-round.

**21.06.309 Heritage tree.**

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Heritage tree: a tree or stand of trees that is particularly desirable because it has valued, unique characteristics that set them apart from other similar trees. Valued, unique characteristics include uncommon genus, species, form, size, location, historic significance or other desirable feature(s).

**21.06.406 Native growth protection area (NGPA).**

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Native growth protection area (NGPA): an area where native vegetation is preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering and protecting plants and animal habitat.

**21.06.408 Naturalized species.**

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Naturalized species: nonnative species of vegetation that are adaptable to the climatic conditions of the coastal region of the Pacific Northwest.

**21.06.486 Qualified tree professional.**

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Qualified tree professional: an individual with relevant education and training in arboriculture or urban forestry. The individual must be an arborist certified by the International Society of Arboriculture or a registered consulting arborist from the American Society of Consulting Arborists. A qualified tree professional must be certified at tree risk assessments and prescribe appropriate measures necessary for the preservation of trees during land development. For Forest Management Plans, the qualified tree professional must have the ability to assess wooded sites and prescribe measures for forest health and safety. A qualified tree professional that makes determinations on hazard or nuisance trees is required to have certification as a tree risk assessor.

**21.06.599 Significant tree.**

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Significant tree: an existing healthy tree which has a minimum diameter-at-breast-height of six nine inches, as measured according to the most current published edition of the International Society of Arboriculture's "Guide for Plant Appraisal."

**21.06.617 Specimen tree.\***

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Specimen tree: a viable tree that is considered in very good to excellent health and free of major defects, as determined by the City's Tree Official.

**21.06.680 Tree removal.**

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Tree removal: the removal of a tree, through either direct or indirect actions, including but not limited to: (1) clearing, damaging or poisoning resulting in an unhealthy or dead tree; (2) removal of at least half of the live crown; or (3) damage to roots or trunk that is likely to destroy the tree's structural integrity.

**21.06.695 Viable tree.**

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

Chapter 21.16  
DEVELOPMENT STANDARDS – LANDSCAPING

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**21.16.020 Application.**

(1) Except for communication facilities regulated pursuant to Chapter 21.26 WMC, all new development listed in WMC 21.16.030 shall be subject to the landscaping provisions of this chapter; provided, that specific landscaping provisions for uses established through a conditional use permit or a special use permit shall be determined during the applicable review process. For the purposes of this chapter, a new development involves a new occupancy or tenant improvement that exceeds 25 percent of the assessed value of the structure before the improvement or before any damage occurred, if the structure has been damaged and is being repaired.

(2) Removal of any significant tree as defined in Chapter 21.06 WMC on any property shall require a tree removal permit, processed pursuant to WMC 21.15.060(5). As part of any such removal, replacement trees at a 1:1 ratio shall be planted.

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**21.16.180 Maintenance.**

(1) All landscaping and trees shall be maintained for the life of the project.

(2) All landscape materials and trees shall be pruned as necessary to maintain a healthy growing condition or to prevent primary limb failure.

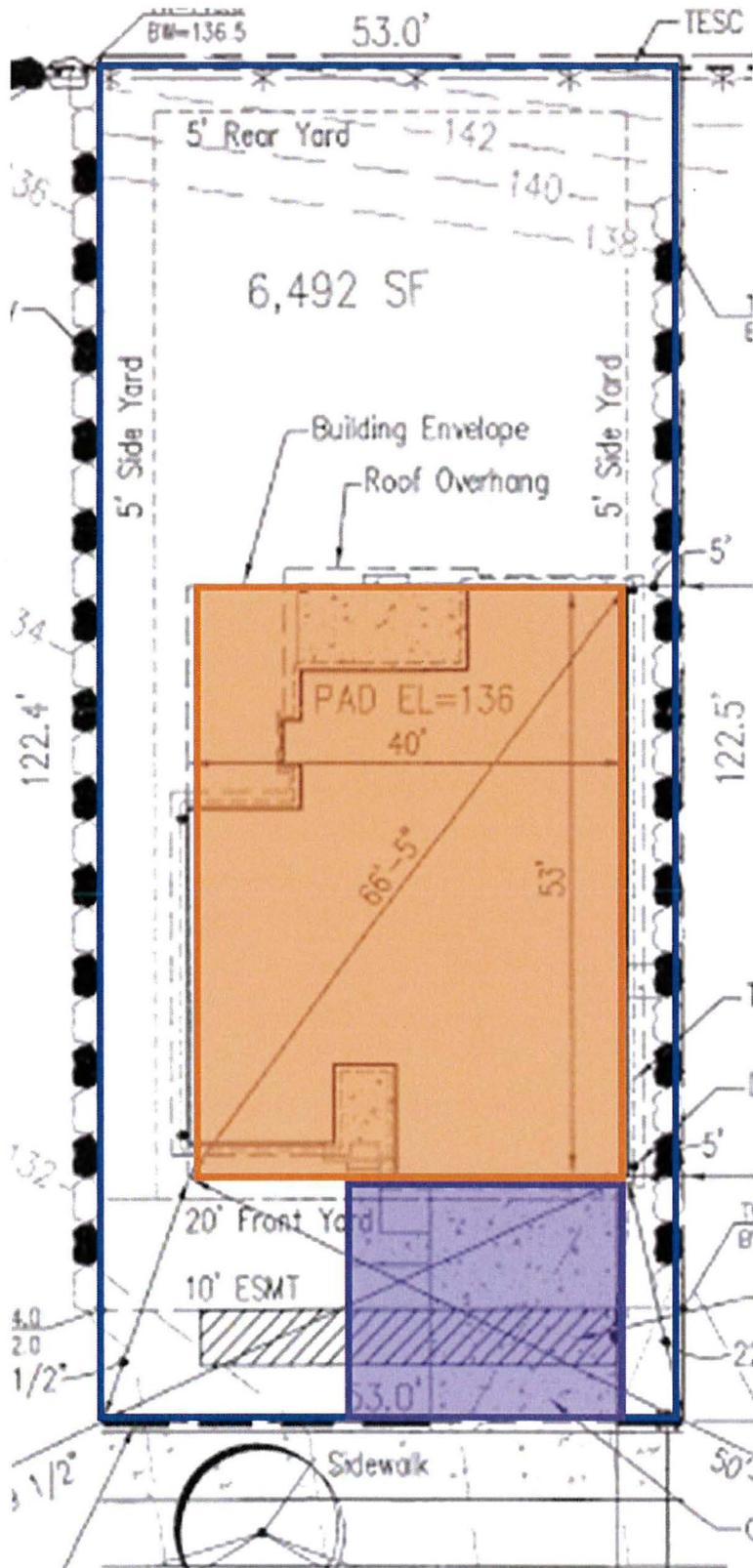
(3) With the exception of dead, diseased or damaged trees specifically retained to provide wildlife habitat, other dead, diseased, damaged or stolen plantings shall be replaced within three months or during the next planting season if the loss does not occur in a planting season. Replacement plantings shall either be like-for-like or another species listed in the Woodinville Plant List and approved by the Director, and meet the minimum planting requirements in this chapter.

(4) Landscape areas shall be kept free of trash.

(5) Proper tree and plant protection shall be considered as a part of the overall landscaping maintenance methods used.

(6) Maintenance of all landscaping installed as part of a development project within the right-of-way shall be the responsibility of the abutting property owner for the life of the project unless alternative conditions are approved by the City.





R-6 Lot  
 Building Coverage: 26%  
 Impervious Surface: 35.6%  
 Area left: 4,178 sf

Tree Credits Required:  
 Current Code: 8.9  
 Proposed Code: 2.9

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