



CITY OF MEDINA

501 EVERGREEN POINT ROAD | PO BOX 144 | MEDINA WA 98039-0144
TELEPHONE 425-233-6400 | www.medina-wa.gov

MEMORANDUM

DATE: September 21, 2021
TO: Medina City Council and Planning Commission
FROM: Stephanie Keyser, AICP, Planning Manager
RE: Tree Code Retention and Replacement Proposal

This memorandum is the product of months of thoughtful discussions and thorough analysis done by the Planning Commission. The discussion in this packet will hopefully provide a roadmap of reasoning as to why certain decisions were made, culminating in the proposed tree code amendment (Attachment A). The goal of these amendments is to preserve the wooded environment that Medina residents have come to know and love while balancing property owners' rights to redevelop their land. Included in this packet is a redlined version of the proposed code (Attachment A), a clean version with all proposed changes accepted (Attachment B), the raw tree permit data from 2015 to the present (Attachment C), City of Medina's List of Suitable Tree Species (Attachment D), the tree activity permit from 2019 79th Ave NE which is the property that ignited this reinvestigation into the tree code (Attachment E), a detailed analysis of six lots using the proposed code (Attachment F), and Purdue University's guide to appraising trees (Attachment G). When reading the redlined draft code, the language that is currently in the code but has been moved to a new section is underlined, while completely new language is red and underlined.

BACKGROUND

In 2020, a handful of redevelopment projects caused a visceral reaction from the community. These redevelopments appeared to be able to cut down a significant number of trees which gave the land a stark, clear-cut appearance. The city is unable to mandate or enforce anything beyond what the code provides. A review of the tree activity permits for these properties revealed that they did meet the requirements of the code. This information illuminated the fact that the tree code, which was last updated in 2015, was not working as originally intended.

During the September 2020 joint meeting, Council placed a review of the tree code on Planning Commission's work plan with a deadline to adopt an amendment by the end of 2021. To ensure Planning Commission met this deadline, the scope of the work plan item was narrowed to looking at the tree retention and replacement requirements for new single-family construction (MMC 20.52.110) and the minimum performance standards for land under development (MMC 20.52.130). The actual work plan task is presented below:

Review tree retention and replacement requirements for new single-family construction

Description

Medina's sylvan nature is something that distinguishes it from the surrounding jurisdictions and contributes to its high-quality residential character. Recent projects have demonstrated a deficiency in the tree code regarding new construction. This task would only review the sections of the tree code that relate to new single-family site redevelopment.

Requests to Staff

The first step will be to examine the retention and replacement requirements for lots undergoing redevelopment.

Deliverable

The initial deliverable from PC to CC would be a high-level recommendation regarding changes to the retention and replacement requirement in the tree code for new single-family development (MMC 20.52.110) and/or the minimum performance standards for land under development (MMC 20.52.130).

TREE ACTIVITY PERMITS AND EXISTING CODE ANALYSIS

The first step to any code amendment is an analysis of the existing conditions. For this work plan task, the existing conditions are determined by two components: 1) the tree permits that have been approved since the most recent tree code amendment in 2015 and 2) a review of the current tree code. While there are multiple types of tree permits, only the permit associated with land under development was reviewed; this type of permit is called tree activity permit.

Tree Activity Permits 2015 – Present

Medina's tree code has different requirements for land that is under development and land that is not. For this work plan item, Planning Commission was direct to only look at the section of the code that regulate land under development, or new construction. The most recent tree code amendment went into effect on July 31, 2015. The first tree permits to be vested under the new code were submitted in August of that year. Staff reviewed the records that are available and analyzed 110 approved tree activity permits associated with land under development (Attachment C). This does not include tree activity permits that were submitted for non-residential uses such as the Overlake Golf and Country Club or the St. Thomas School, permits that were missing data, or permits still under review.

To understand the data, one must first be aware that Medina's code converts trees into tree units. Only a significant tree, which is a tree with at least 6-inch DBH and is a species identified on the *City of Medina List of Suitable Tree Species* (Attachment D), is assigned a tree unit. The tree unit number is based upon the size of the tree in diameter breast height (DBH) and the type of tree (deciduous vs. coniferous) it is. The current code's tree unit table is below:

Table 20.52.130(C) Existing Tree Unit

Tree Type	Diameter Breast Height of Existing Tree	Tree Unit
Deciduous	6 to 10 inches	0.75
	Greater than 10 inches	1.0
Coniferous	6 to 10 inches	0.75
	Greater than 10 inches, but less than 50 inches	1.0
	50 inches and greater	1.25

To gain a clearer picture of what is happening, Attachment C includes not just the tree units, which are the existing trees converted according to Table 20.52.130(C), but also the number of actual trees. The 110 tree activity permits span August 2015 until July 21, 2021. Those permits were comprised of 2,146 tree units, or 2,290 total trees on site. There were 785 tree units (839 actual trees) removed for a net 1,361 tree units (1,451 actual trees). Of the 110 tree activity permits, 44 of them (40%) were required to plant supplemental trees which resulted in 116 supplemental tree units (209 actual trees). It should be noted that the reason for the large discrepancy between the required supplemental tree units and actual trees planted is that some projects planted significantly more trees than were required. The redevelopment of these lots resulted in a decrease of 31.17% in tree units (27.52% reduction of actual trees on site).

Existing Tree Code Analysis

The existing tree code analysis began with a review of the sections that were called out in the work plan item: tree retention requirements (MMC 20.52.110) and the minimum performance standards for land under development (MMC 20.52.130). As the discussions evolved, it became clear that a comprehensive analysis could not be done without considering the legacy tree section (MMC 20.52.120). Additionally, the lack of guidance in the code over where trees should be preserved or replanted and whether larger lots should have location requirements rounded out the review.

Tree Retention and Minimum Performance Standard

In the existing code, the two main sections that regulate tree activity for land under development are the tree retention requirements (MMC 20.52.110) and the minimum performance standards (MMC 20.52.130). One of the first things that became evident is that there is a conflict between these two sections. The retention section gives applicants a choice on the percentage of trees that they are required to retain on site when their land is under development. The percentages range from 50, 40, 35 and 25 and which option is utilized is dependent on the DBH of the existing trees on site. The minimum performance standards look at the square footage of the entire site, converts the existing trees into tree units, and sets a minimum tree density ratio for the lot at .35 (for example, a 10,000 square foot lot would be required to have a minimum of 3.5 tree units on site –

10,000/1,000 = 10 * .35 = 3.5). However, there is a clause in the retention portion of the code that reads, *the requirement for tree retention...shall not exceed the trees necessary to meet the required tree units set forth in MMC 20.52.130 (MMC 20.52.110(C))*. This means that regardless of whatever percentage option a homeowner elects to utilize, they will never be *required* to keep more trees on their property than the tree units required by the tree density ratio. While the current tree retention requirement section has good intentions, the inclusion of this clause effectively negates the entire section and simply steers people toward the actual guiding framework for tree preservation in the code which is the density ratio.

Location

While the intent of the tree code might be to retain trees, there is no further guidance or example of what or where that means. This is, in staff's opinion, a fatal flaw when writing any code. This resulting ambiguity was no more perfectly exemplified than with the approval of the tree activity permit for 2019 79th Avenue NE (Attachment E). The owners met the requirements of the code but because the code is silent on where trees should be retained, they opted to only keep those along the back perimeter of their property. While reviewing the tree codes of other jurisdictions¹, many of them have created priorities on where trees should be retained. Areas such as critical areas and their buffers, low impact development (LID) stormwater retention facilities, and site perimeters are commonly prioritized areas.

Legacy Trees

Legacy trees are supposed to be those trees that, due to their size, are collectively recognized as contributing to the character of the community. Concern was raised by the Planning Commission that the code fails to disincentivize the removal of these trees by requiring three supplemental trees to be planted and paying \$400 for each replacement inch not accounted for in the planting of replacement trees. If a property removed a 50-inch DBH legacy tree and planted three 2-inch replacement trees, they would be required to pay \$17,600 (50-inches removed, three 2-inch replacement trees = 6 replacement inches, 50 – 6 = 44 x 400 = 17,600). For a multi-million dollar project, paying \$17,600 to get a better view or have a larger driveway is clearly not going to be an issue.

Another consideration for legacy trees that was discussed was perhaps the threshold for what qualifies as a legacy is too large at 50-inch DBH. If trees are as valuable as the community says they are, then perhaps more trees should be protected under that umbrella of legacy status.

Large Lot Considerations

It is difficult to analyze any portion of Medina's development code without calling out the disparity amongst lot sizes. It is not surprising that larger lots (anything 20,000 square feet or larger) statistically have more trees than smaller lots. Nor should it be surprising that these lots are then able to cut down more trees. While no one wants to penalize a property owner that just happens to own a heavily wooded lot, it might make sense for them to have additional considerations. For example, requiring that trees be preserved in different areas of the lot and not just along a back

¹ Bellevue, Mercer Island, and Sammamish all have location requirements depending on the type of activity associated with development.

property line. This type of requirement would not be appropriate for smaller lots that may only have two or three trees to begin with.

PROPOSED TREE CODE AMENDMENTS

It was not the desire of Planning Commission to completely reinvent the tree code. Working within the existing framework, the following proposed changes are intended to simplify the code while also increasing tree preservation.

Preservation Not Retention – Throughout

The word preservation has replaced retention in the code. Although a minor change, the Commission felt the distinction in preservation aligns better with the intention and spirit of the tree code.

General Provisions and Applicability – New Section

A new section has been created (MMC 20.52.015). The purpose of this is to provide one section of clear direction that is applicable to all tree removal projects that are associated with development. This section is a combination of existing text and new language to fill out some of the missing guidance in the code, specifically identifying that tree preservation is a key step in site planning process.

Tree Retention Requirements – Repealed

The Tree Retention Requirements (MMC 20.52.110) has been repealed. **This does not mean we are not requiring sites to preserve trees.** As explained in the existing tree code analysis above, the retention section conflicted with the performance standard/density ratio requirement for each lot. To provide clearer direction to applicants, other mechanisms in the code have been both created and increased (*see legacy and landmark trees, updated tree density ratio, updated tree unit, supplemental tree standards and priorities, and tree preservation plan below*). The cumulative result of the proposed amendments will be the preservation of more trees with greater consideration given to their location.

Legacy and Landmark Trees – Existing Section Amended

The threshold for what qualifies as a Legacy tree has been reduced from 50-inches to 36-inches and a new category of tree called Landmark tree, which are those trees with a DBH of 100-inches and above, has been created. This will create three classes of trees: significant (those with 6-inch DBH but less than 36-inches); Legacy (those with 36-inch DHB up to less than 100-inches); and Landmark (those with 100-inch DBH and greater). By lowering the threshold of what counts as a legacy tree, it sends a clear policy direction to homeowners that the city values these trees and does not want to lose them. The mitigation required for removal of one of these trees increases with each class of tree with Landmark having the most stringent requirements.

By lowering the threshold for what qualifies as a Legacy tree, it became clear that the mitigation needed to be adjusted as well. The current code calculates replacement trees by multiplying the DBH of the removed tree by 50% to establish replacement inches. In order to prevent small lots from being burdened with planting an absurd amount of replacement trees if a 36-inch DBH Legacy tree were removed², a new scale relative to lot size has been created. In the proposal, lot sizes are broken out into the same five groupings used for the setback requirements (MMC 20.22.030). These groupings are: less than 10,001; from 10,001 to 13,000; from 13,001 to 15,000; from 15,001 to 20,000; greater than 20,000. The required replacement DBH is a sliding scale from 10% up to 50%. Examples of how this would translate for each grouping may be found below:

Lot size: 10,000 sq. ft.
Legacy tree DBH removed: 36"
Required replacement inches: 10% removed DBH
Required inches = $3.6 = 4$ rounded up
($36 \times .1 = 3.6 = 4$)

Lot size: 12,000 sq. ft.
Legacy tree DBH removed: 36"
Required replacement inches: 15% removed DBH
Required inches = $5.4 = 6$ rounded up
($36 \times .15 = 5.4 = 6$)

Lot size: 15,000 sq. ft.
Legacy tree DBH removed: 36"
Required replacement inches: 25% removed DBH
Required inches: 9
($36 \times .25 = 9$)

Lot size: 18,000 sq. ft.
Legacy tree DBH removed: 36"
Required replacement inches: 35% removed DBH
Required inches: $12.6 = 13$ rounded up
($36 \times .35 = 12.6 = 13$)

Lot size: 20,000 sq. ft.
Legacy tree DBH removed: 36"
Required replacement inches: 50% removed DBH
Required inches: 18
($36 \times .5 = 18$)

There is no sliding scale option for Landmark trees which have a one-for-one replacement inch requirement. If a healthy Landmark tree that has a DBH of 100-inches is removed, the quantity of replacement inches required is 100. It is acknowledged that very few properties would be able to

² Removing a 36-inch tree would require 18 replacement inches or 9 tree minimum. This requirement would be nearly impossible to meet on an 8,000 square foot lot.

accommodate planting that many supplemental trees. In this instance, fee-in-lieu of plantings would be accepted (*see fee-in-lieu below*).

Increase Tree Density Ratio – Existing Table Amended

The density ratio (Table 20.53.130(B)) determines how many tree units are required onsite. The proposal increases this number from .35 to .4 which will require more trees to be retained on site. For example, a 15,000 square foot lot currently is required to have 5.25 tree units on site (15,000 / 1,000 = 15 * .35 = 5.25). Increasing the density ratio to .4 would require 6 tree units on site (15,000 / 1,000 = 15 * .4 = 6).

Decrease Existing Tree Unit – Existing Table Amended

Once the tree density ratio is determined, the existing trees on site are assigned a tree unit based on type (deciduous vs. coniferous) and DBH. The proposal reduces the tree unit by .25 for each category (Table 20.52.130(C)). The rationale for doing this is that more trees will be required to meet the density ratio. Using the same example from above, achieving the required 6 units could be met multiple ways. One possibility would be to preserve 6 36-inch DBH trees while another option would be to preserve 12 6-inch DBH trees; how a property meets this requirement depends on what exists on site. Throughout the detailed lot analysis (Attachment F) it was discovered that increasing the density ratio and decreasing the tree unit number resulted in the most required trees (either by preservation or through supplementation).

The reduction of the Legacy tree threshold from 50-inches to 36-inches also amends the cut off for the assigned tree unit for conifers. Trees from 6-10 inches are assigned a unit of 0.5, 10-less than 36-inches are assigned a unit of 0.75, and 36-inches and larger are assigned a unit of 1.0 as shown below.

Table 20.52.130(C) Existing Tree Unit

Tree Type	Diameter Breast Height of Existing Tree	Tree Unit
Deciduous	6 to 10 inches	<u>0.5</u>
	Greater than 10 inches	<u>0.75</u>
Coniferous	6 to 10 inches	<u>0.5</u>
	Greater than 10 inches, but less than 50 <u>36</u> inches	<u>0.75</u>
	50 <u>36</u> inches and greater	<u>1.0</u>

Supplemental Tree Standards and Priorities Not Off-Site Tree Planting – Existing Section Amended

Off-Site Tree Planting (MMC 20.52.140) has become Supplemental Tree Standards and Priorities. The purpose of amending this section is to establish priorities where supplemental trees (when applicable) should be planted. This will hopefully prevent future projects from only preserving the trees along the back property line. Supplemental trees may be planted on site, off site, or if there is insufficient area to replant, the director or designee may authorize payment of a fee-in-lieu. When planted on site, the following is the order of priority: 1) adjacent to critical areas and their associated buffers, 2) adjacent to low impact development (LID) stormwater facilities, 3) within the first 15-foot of the front property line, 4) within the immediately adjacent right-of-way.

Tree Preservation Plan Not Tree Removal and Planting Plan – Existing Section Amended

Tree Removal and Planting Plan (MMC 20.52.320) has become Tree Preservation Plan. Every tree permit for land under development is required to submit a plan that identifies where the trees on site are located, what type of tree they are, whether they are going to be removed or preserved, and how the preserved trees will be protected. The proposed amendments would require the preservation plan to show compliance with new objectives that include: trees being incorporated as a site amenity with forested sites, to the extent possible, retaining their forested look; trees being preserved as vegetated islands and stands rather than isolated trees; and trees being healthy. When it specifically comes to the preservation of significant trees, the following priorities have been established for preserving significant trees: trees that form a continuous canopy; trees adjacent to critical areas and their associated buffers; trees located within the first 15-foot adjacent to a property line; trees that will be used as part of a low impact development (LID) storm water facility; and trees taller than 60 feet or greater than 24-inch DBH.

As Planning Commission found when discussing bulk, larger lots have a different baseline from smaller lots. Regarding trees, these lots typically have more trees on site to begin with and are therefore able to take down more trees which creates that clear-cut appearance. To try and address this, an additional requirement is suggested to be placed on lots larger than 20,000 square feet (excluding lots in the Shoreline Jurisdiction, which have their own regulations). The suggestion would be for some of the required trees to be preserved equally along the front and rear property lines and the remaining required trees to be preserved in the site interior.

Fee-in-Lieu – New Section

A new section has been created for fee-in-lieu to consolidate the multiple mentioning of the process into one location. Fee-in-lieu has always been an option, but now it is only available if the director or designee determines that there is insufficient area on the property to replant. To address the concern that the fees are too low and fail to act as a deterrent, it is suggested that the fees themselves will be tied to the most current *Council of Tree and Landscape Appraisers Guide for Plant Appraisal*³. This is a book published by the International Society of Arboriculture (ISA) and is becoming a standard for determining the value of a tree. The Council of Tree and Landscaper Appraisers

³ Purdue University put out a brochure that succinctly explains the benefits of using the *Council of Tree and Landscape Appraisers Guide for Plant Appraisal* much better than staff ever could. It is available as Attachment G.

periodically updates their appraised values, which will take the burden off the city having to raise the fees every few years.

TIMELINE FOR ADOPTION

The proposed timeline for adoption is below:

Action	Date	Status
Draft Tree Code Available Online	Late August	Completed
Joint PC/CC Meeting	September 21	Pending
PC Meeting	September 28	Pending
SEPA and Department of Commerce	October 1	Pending
Tree Code Open House (<i>online</i>)	October 14	Pending
PC Tree Code Public Hearing and Recommendation	October 19	Pending
CC Tree Code Public Hearing	November 8	Pending
CC Tree Code Final Adoption	December 13	Pending

For ease of identifying what's new, the code language that is existing but has been moved to a new section is underlined, while the completely new language is red and underlined.

Chapter 20.52

TREE MANAGEMENT CODE

Sections:

- 20.52.010 Purpose and intent.
- 20.52.015 General provisions and applicability.
- 20.52.020 Applicability of the tree management code.
- 20.52.025 *Repealed.*
- 20.52.030 Exemptions.
- 20.52.040 Using this chapter.
- 20.52.050 Designation of significant tree species.
- 20.52.060 *Repealed.*
- 20.52.070 *Repealed.*
- 20.52.080 *Repealed.*
- 20.52.090 *Repealed.*
- 20.52.100 Designation of land under development.
- ~~20.52.110~~ ~~Tree retention requirements.~~ Repealed.
- 20.52.120 Legacy and Landmark tree protection measures.
- 20.52.130 Minimum performance preservation standards for land under development.
- 20.52.140 ~~Off-site tree planting~~ Supplemental tree standards and priorities.
- 20.52.150 Minimum restoration standards for land not under development.
- 20.52.160 *Repealed.*
- 20.52.200 Hazard tree risk assessment.
- 20.52.210 Nuisance tree.
- 20.52.220 City arborist established.
- 20.52.300 Notice of tree removal involving no construction.
- 20.52.310 Tree activity permits.
- 20.52.320 Tree ~~removal and planting~~ preservation plan.
- 20.52.330 Fee-in-lieu of supplemental plantings.
- 20.52.340 Tree protection measures during construction.
- 20.52.400 City tree removals.
- 20.52.410 Minimum street tree standards.
- 20.52.420 Owner responsibility within city rights-of-way.
- 20.52.500 Liability.
- 20.52.510 Other general provisions.

20.52.010 Purpose and intent.

A. The purpose of the tree management code is to preserve the existing sylvan appearance through long-term retention preservation and planting of trees that contribute to the community's distinct features including proximity to the lakeshore, views, heavily landscaped streetscapes, and large tracts of public and private open spaces.

B. The intent of this chapter is to establish regulations and standards that:

1. Protect and preserve the existing tree canopy;
2. Provide homeowners flexible standards that encourage the preservation of trees while recognizing the importance of having access to sunlight and views;
3. Recognize through the standards in this chapter that certain factors may require the removal or pruning of certain trees due to circumstances such as disease, danger of falling, proximity to structures and improvements, interference with utility services, protection of view and sunlight, and the reasonable enjoyment of property;
4. Encourage best practices for the planting and managing of trees appropriately to minimize hazards, nuisances, and maintenance costs while allowing access to sunlight and views;
5. Prevent the indiscriminate removal or destruction of trees except as provided for in accordance with this chapter;
6. Promote building and site planning practices consistent with the purpose and intent of this chapter;
7. Ensure prompt development, restoration, replanting and effective erosion control of property after tree removal with landscape plans and other reasonable controls; and
8. Foster public education on the local urban forestry program and encourage good tree management consistent with this chapter. (Ord. 923 § 9, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.015 General provisions and applicability:

Where land is designated as under development pursuant to MMC 20.52.100, the preservation of healthy trees shall be considered in accordance with the following guidance:

1. Tree preservation shall be included as a primary step in site planning and shall be achieved by meeting the minimum required tree units established in Table 20.52.130(B).
2. Site design strategies and specific development site areas demonstrating preservation of significant trees shall be presented at the pre-application meeting with the city.
3. A tree preservation plan shall be required that demonstrates the objectives outlined in MMC 20.52.320.
4. Any applicable grading plans, pursuant to MMC Chapter 20.43, shall be developed to avoid significant alteration to the grades around preserved trees.
5. Multiple applications of the tree ~~retention~~ preservation requirements in this ~~section~~ chapter over a 10-year period shall not cause the number and size of trees required to be

retained to be reduced below the number and size of trees required to be retained with the first application.

6. When calculating ~~retention requirements~~ tree preservation requirements, trees excluded from ~~retention~~ preservation requirements shall not be included in the calculation.
7. For the purpose of calculating tree density requirements, critical areas and their associated buffers shall be excluded from the lot area used for calculation (example: a 16,000 square foot lot has a stream on site that encompasses 1,500 square feet including the stream buffer. The lot area used for tree density calculation would be 14,500 square feet (16,000 – 1,500 = 14,500) provided:
 - a. Critical areas shall be limited to wetlands, streams, geologically hazardous areas, conservation easements, and their associated buffers as described in MMC Chapters 20.50 and 20.67; and
 - b. Removal of any vegetation or woody debris, including trees, from a critical area is subject to the regulations in MMC Chapters 20.50 and 20.67.
8. All of the following shall be excluded from the requirements of this ~~section~~ chapter:
 - a. Hazard trees designated pursuant to MMC 20.52.200;
 - b. Nuisance trees designated pursuant to MMC 20.52.210 and where, if applicable, re-development does not remedy the conditions causing the nuisance;
 - c. Those significant trees having less than a ~~36~~ 24-inch diameter breast height size and located within the footprint of the principal building on the lot.

20.52.020 Applicability of the tree management code.

A. No person or their representative, directly or indirectly, shall remove or destroy trees located on private property or public property within the jurisdictional boundaries of the city except as provided for in accordance with this chapter.

B. Additional tree management requirements are set forth in the Medina shoreline master program as provided in MMC 20.66.050. (Ord. 923 § 10, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.025 Using this chapter.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.030 Exemptions.

The following are exempt from the requirements in this chapter:

A. Trees less than six inches diameter breast height unless the tree is used to satisfy a requirement of this chapter;

B. Normal and routine trimming and pruning operations and maintenance of trees and vegetation on private property following the most current ANSI standards;

C. Emergency tree removal or hazard pruning for any tree that poses an imminent threat to life or property provided:

1. The city is notified within seven days after the emergency tree removal or hazard pruning takes place and evidence is provided of the imminent threat supporting the emergency tree removal; and
2. If evidence of the imminent threat is not provided, or the director determines the evidence does not warrant an emergency tree removal, the director may require the responsible person to obtain a permit as prescribed by this chapter and require compliance with the requirements of this chapter;

D. Trimming and pruning operations and maintenance of trees and vegetation following the most current ANSI standards or removal of trees performed by the city or a contractor contracted by the city within a public right-of-way or city-owned parkland;

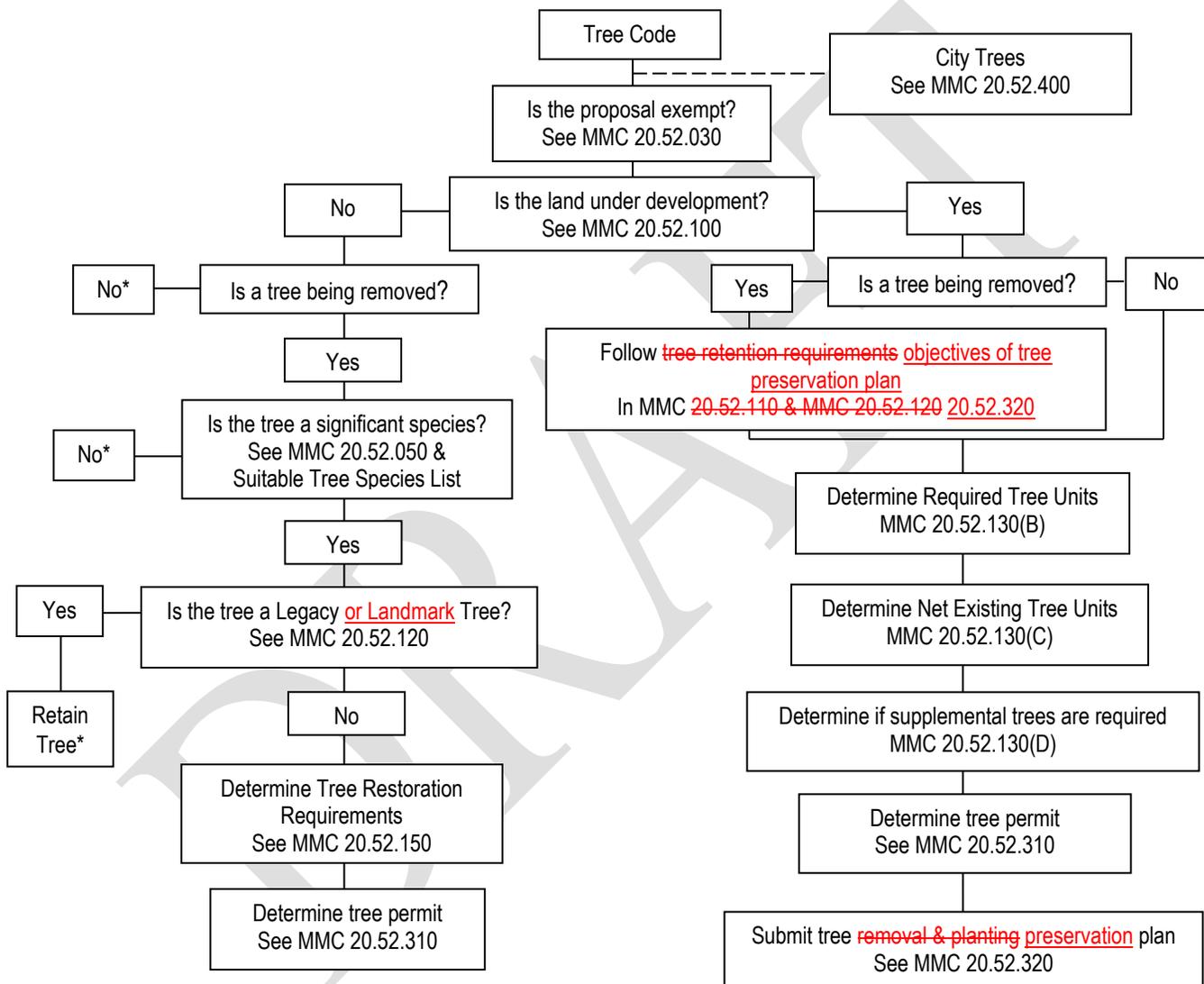
E. Removal of trees and vegetation management by the city or an agency under contract with the city for purposes of installing and maintaining fire hydrants, water meters, pumping stations, or similar utilities; or

F. The removal of a dead tree where the director pre-determines that the tree died from naturally occurring causes. (Ord. 923 § 12, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.040 Using this chapter.

This chapter prescribes the requirements for tree ~~retention~~ preservation and planting on lands undergoing development, and the requirements for removal of significant trees on private and public lands. Diagram 20.52.040 offers a user's guide that outlines the general process for applying the provisions of this chapter.

Diagram 20.52.040



* Denotes no further action required.

20.52.050 Designation of significant tree species.

A. A list of suitable tree species consisting of coniferous and deciduous trees is set forth in the document entitled “City of Medina List of Suitable Tree Species,” adopted by Ordinance No. 923 and on file with the city for the purpose of establishing significant tree species on private

property, public property, and city rights-of-way; and tree species that are eligible for credits in this chapter.

B. The director shall maintain the “City of Medina List of Suitable Tree Species” document at Medina City Hall and may administratively modify the list consistent with the following criteria:

1. The designation of coniferous trees should include all species excluding tree species known to have invasive root structures and to be fast growing such as Leyland cypress and should also exclude trees planted, clipped or sheared to be used as a hedge;
2. The designation of deciduous trees should include those suitable to United States Department of Agriculture Plant Hardiness Zones 8 and 9, excluding those trees with crown diameter of 10 feet or less at maturity;
3. Plantings of the following tree species within the city’s rights-of-way shall be prohibited: London plane, quaking aspen, Lombardy poplar, bolleana poplar, cottonwood, and bigleaf maple.

C. The director shall submit proposals to modify the “City of Medina List of Suitable Tree Species” to the city council for their consideration. The city council may approve, modify or deny the proposed modifications. The city council may also decline to take action on the proposed modifications, in which case the modifications shall be incorporated into the list and take effect five days after the date the city council declines to take action.

D. The “City of Medina List of Suitable Tree Species” is used in conjunction with the definition of significant tree set forth in MMC 20.12.200 to denote the term significant tree as used in this chapter. (Ord. 923 § 14, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.060 Notice of tree removal involving no construction.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.070 Tree removal and replacement plan.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.080 Designation of significant tree species.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.090 Tree replacement requirements.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.100 Designation of land under development.

Land is designated as under development for purposes of this chapter if one or more of the following conditions is present:

A. Any development activity requiring a building permit where:

1. Construction of a dwelling having a gross floor area of 2,500 square feet or more;

2. Construction of accessory buildings on property containing a residential use, or supporting a residential use, where the total gross floor area of all accessory buildings on the lot is 1,000 square feet or more;
3. Any building constructed to be occupied principally by a nonresidential use where the gross floor area of the building is 1,000 square feet or more;
4. Any series of exterior alterations, modifications or additions that over a four-consecutive-year period increases the total building footprint on a lot by more than 500 square feet or 15 percent, whichever is larger;
5. Construction of any structures, including but not limited to driveways, decks, patios, and walkways, that over a four-consecutive-year period increases the impervious surface on the lot by a total of 2,000 square feet or more;
6. Grading that over a four-consecutive-year period totals 2,000 cubic yards or more.

B. Any development activity requiring a building permit, a right-of-way permit, and/or a land use or shoreline permit where:

1. One or more significant trees are removed, with at least one tree having a 10-inch diameter breast height or larger size; or
2. Four or more significant trees are removed, provided each has less than a 10-inch diameter breast height size; and
3. The criteria in subsections (B)(1) and (2) of this section shall include the following trees:
 - a. Significant trees removed within two years prior to the submittal of an application for such permits; or
 - b. Significant trees removed within two years after such permits are finalized by the city and the project completed.

C. Clearing or grubbing of land that:

1. Is located outside of city rights-of-way;
2. Requires no permits, except for a tree permit; and
3. Removes four or more significant trees, with at least four trees having a 10-inch diameter breast height or larger size, over a four-consecutive-year period.

D. The counting of removed trees under subsections (B) and (C) of this section shall not include those trees designated as a hazard or nuisance tree pursuant to MMC 20.52.200 and 20.52.210, respectively. (Ord. 925 § 1, 2015; Ord. 923 § 16, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.110—Tree retention requirements Repealed.

~~A. Where land is designated as under development pursuant to MMC 20.52.100, trees within the boundaries of the lot (retention of trees in the city right of way are governed by MMC 20.52.400) shall be retained in accordance with any one of the following:~~

- ~~1. Preserve at least 50 percent of the existing trees that are:

 - ~~a. Six inches diameter breast height and larger; and~~
 - ~~b. Of a native species eligible for credit on private property as set forth in the “City of Medina List of Suitable Tree Species”; or~~~~
- ~~2. Preserve at least 40 percent of the existing trees that are:

 - ~~a. Six inches diameter breast height and larger with at least half of those required to be retained each having 10 inches diameter breast height or larger size; and~~
 - ~~b. Of a native species eligible for credit on private property as set forth in the “City of Medina List of Suitable Tree Species”; or~~~~
- ~~3. Preserve at least 35 percent of the existing trees that are:

 - ~~a. Six inches diameter breast height and larger with at least half of those required to be retained meeting the following:

 - ~~i. All shall have a diameter breast height size of 10 inches or larger; and~~
 - ~~ii. Forty percent shall have a diameter breast height size of 24 inches or larger; and~~~~
 - ~~b. Of a native species eligible for credit on private property as set forth in the “City of Medina List of Suitable Tree Species”; or~~~~
- ~~4. Preserve at least 25 percent of the existing trees that are:

 - ~~a. Six inches diameter breast height and larger with at least 75 percent of those required to be retained each having 24 inches diameter breast height or larger size; and~~
 - ~~b. Of a native species eligible for credit on private property as set forth in the “City of Medina List of Suitable Tree Species.”~~~~

~~B. All fractions in subsection (A) of this section shall be rounded up to the next whole number.~~

~~C. The requirement for tree retention under subsection (A) of this section shall not exceed the trees necessary to meet the required tree units set forth in MMC 20.52.130.~~

~~D. Multiple applications of the tree retention requirements in this section over a 10-year period shall not cause the number and size of trees required to be retained to be reduced below the number and size of trees required to be retained with the first application.~~

~~E. When calculating retention requirements, trees excluded from retention requirements shall not be included in the calculation.~~

~~F. All of the following shall be excluded from the requirements of this section:~~

- ~~1. Hazard trees designated pursuant to MMC 20.52.200;~~
- ~~2. Nuisance trees designated pursuant to MMC 20.52.210 and where, if applicable, re-development does not remedy the conditions causing the nuisance;~~
- ~~3. Those significant trees having less than a 36 inch diameter breast height size and located within the footprint of the principal building on the lot. (Ord. 923 § 17, 2015; Ord. 909 § 2 (Att. A), 2014)~~

20.52.120 Legacy and Landmark tree protection measures.

This section applies to trees designated as Legacy and Landmark trees, which are native trees that because of their age, size and condition are recognized as having ~~exceptional~~ outstanding value in contributing to the character of the community. Legacy and Landmark trees within the shoreline jurisdiction are regulated in MMC 20.66.050.

A. A Legacy or Landmark tree ~~meeting all of the following criteria~~ shall be designated as a ~~legacy tree~~ by meeting the following criteria:

1. Legacy tree:

- ~~1a.~~ 1a. The tree species is denoted as a legacy tree on the “City of Medina List of Suitable Tree Species”; and
- ~~2b.~~ 2b. The diameter breast height of the tree is ~~50~~ 36 inches or larger but less than 100 inches; and
- ~~3c.~~ 3c. The city arborist determines the tree to be healthy with a likelihood of surviving more than 10 years based on assumptions that:
 - ~~ai.~~ ai. The tree is properly cared for; and
 - ~~bii.~~ bii. The risk of the tree declining or becoming a nuisance is unenhanced by any proposed development; ~~and.~~

2. Landmark tree:

- a. The tree species is denoted as a legacy tree on the “City of Medina List of Suitable Tree Species”; and
- b. The diameter breast height of the tree is 100 inches or larger; and
- c. The city arborist determines the tree to be healthy with a likelihood of surviving more than 10 years based on assumptions that:
 - i. The tree is properly cared for; and

ii. The risk of the tree declining or becoming a nuisance is unenhanced by any proposed development.

4. ~~The tree is not:~~

~~a. A hazard tree pursuant to MMC 20.52.200; or~~

~~b. A nuisance tree pursuant to MMC 20.52.210; excluding those trees where, if applicable and feasible, redevelopment can remedy the conditions causing the nuisance; or~~

~~c. Located within the footprint of the principal building on the lot, excluding those trees where alternative design of the building is feasible in retaining the tree.~~

B. Legacy and Landmark trees shall be preserved and retained unless replacement trees are planted in accordance with the following:

1. Legacy tree:

~~1a. The quantity of replacement trees is calculated by multiplying the diameter breast height of the each subject Legacy tree by 50 percent the required percentage standards in Table 20.52.120(B) to establish the number of replacement inches; and~~

~~2. Where more than one legacy tree is removed, the replacement inches for each legacy tree being removed shall be added together to produce a total number of tree replacement inches; and~~

~~b. All fractions of this section shall be rounded up to the next whole number.~~

~~3. The total number of replacement trees is determined by the total caliper inches of the replacement trees equaling or exceeding the required tree replacement inches established in subsections (B)(1) and (2) of this section.~~

Table 20.52.120(B) Legacy Tree Replacement Requirements

<u>Square Footage of the Lot Area</u>	<u>Required number of replacement inches</u>
<u>Less than 10,001</u>	<u>10% removed DBH</u>
<u>From 10,001 to 13,000</u>	<u>15% removed DBH</u>
<u>From 13,001 to 15,000</u>	<u>25% removed DBH</u>
<u>From 15,001 to 20,000</u>	<u>35% removed DBH</u>
<u>Greater than 20,000</u>	<u>50% removed DBH</u>

The following example illustrates how to calculate legacy tree replacement units on a lot that is less than 10,001 square feet:

Lot size: 8,120 sq. ft.

Required tree units: $8,120 / 1,000 \times 0.4$ (tree density ratio) = 3.2 (rounded up to the next whole number) = 4

Total existing tree units on site: 6.5 units

Eight 10-inch DBH trees – 4 units (.5 units per tree)

Two 24-inch DBH trees - 1.5 units (.75 units per tree)

One 44-inch DBH Tree – 1 unit (1 unit per tree)

Total tree units removed: 3

Four 10-inch DBH trees = 2 units removed

One 44-inch DBH tree = 1 unit removed

Net tree units: 3.5

Supplemental Units Required: Yes (4 required tree units – 3.5 net tree units) = .5

Legacy Tree Removed: Yes – One 44-inch DHB tree

Legacy Tree Supplemental Units: $10\% \times 44 = 4.4$ (rounded up to the next whole number) = 5

Landmark Tree Removed: No

Total supplemental Requirements = 5.5 units (.5 supplemental units + 5 legacy supplemental units) = 6 trees

2. Landmark tree:

a. The quantity of replacement inches is calculated by multiplying the diameter breast height of each subject Landmark tree by 100 percent to establish the minimum number of replacement inches; and

b. All fractions of this section shall be rounded up to the next whole number.

C. In lieu of planting the replacement trees prescribed in subsection (B) of this section, an applicant may satisfy the tree replacement requirements by: meeting the criteria set forth in MMC 20.52.330.

1. Planting at least three replacement trees; and

2. Contributing to the Medina tree fund at a rate of \$400.00 per each replacement inch not accounted for in the planting of replacement trees; and

3. The sum of the tree replacement inches accounted for by contributing to the Medina tree fund and the total caliper inches of the replacement trees planted shall not be less than the total replacement inches calculated in subsection (B) of this section.

D. Other Provisions.

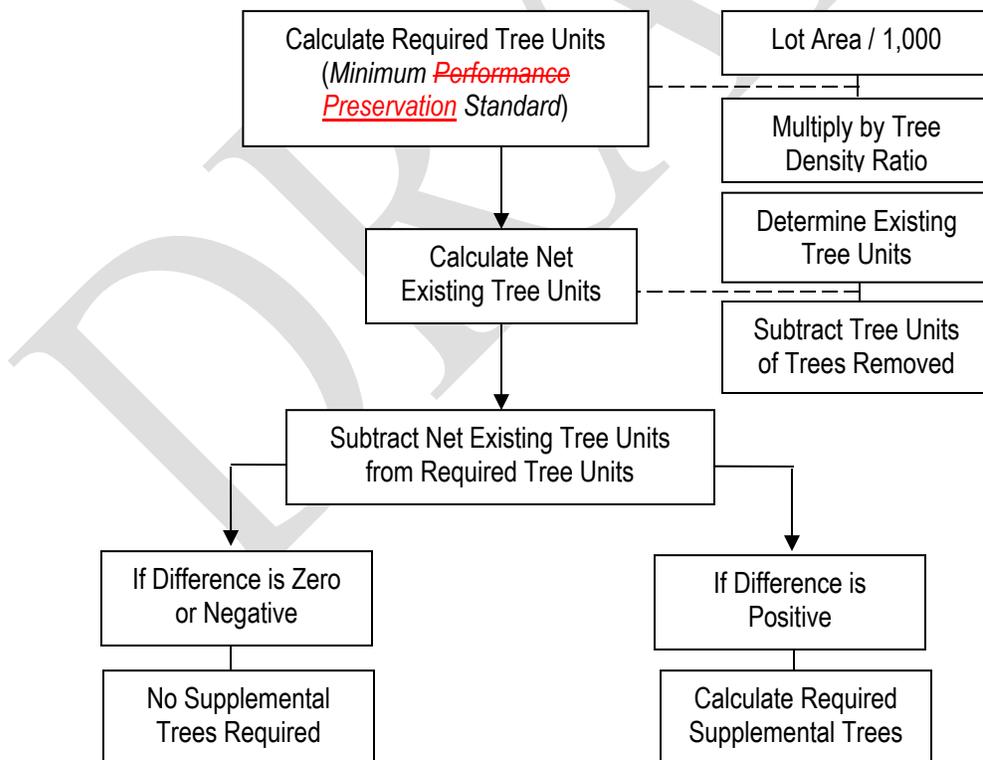
1. Each replacement tree shall meet the standards prescribed in MMC 20.52.1340 ~~(D)(4)(a)~~ through (d) and (g);

2. The tree replacement requirements set forth in subsections (B) and (C) of this section shall apply to the removal of a Legacy and Landmark trees in lieu of and in addition to requirements for removing nonlegacy trees;
3. The tree replacement requirements set forth in this section for a Legacy and Landmark tree shall not be used to satisfy requirements for removing nonlegacy trees or a pre-existing tree unit gap;
4. If the minimum performance preservation standards in MMC 20.52.130 are used, and if supplemental tree units are required, the tree replacement requirements set forth in subsections (B) and (C) of this section shall together count as one supplemental tree unit;
5. Off-site tree planting as described in MMC 20.52.140 (A), (B), (C)(2), and (E) are acceptable alternatives to on-site replacement tree planting provided the director or designee approves of the off-site location in writing.

20.52.130 Minimum performance preservation standards for land under development.

A. The requirements and procedures set forth in this section shall apply to lands that are designated as under development pursuant to MMC 20.52.100. Figure 20.52.130 outlines the primary steps prescribed by this section in establishing requirements and determining compliance with this chapter.

Figure 20.52.130 Tree Performance Preservation Process



B. Lots with land under development shall contain a sufficient number of significant trees to meet the minimum required tree units established by the following procedures:

1. The lot area is divided by 1,000 square feet; and
2. The quotient is multiplied by the corresponding tree density ratio applicable to the lot as set forth in Table 20.52.130(B); and
3. The resulting product is rounded up to the next whole number to establish the minimum number of required tree units.

Table 20.52.130(B) Tree Density Ratio

Zoning District	Category of Land Use	Tree Density Ratio
R-16, R-20, R-30 & SR-30	Residential	0. 35 <u>40</u>
	Golf Course	0.15
	Nonresidential other than specifically listed	0.25
Public	Schools	0.15
	Parks	0.42
	Residential	0. 35 <u>40</u>
	Nonresidential other than specifically listed	0.25
N-A	All	0.25
State Highway	All	0.12

C. To determine compliance with the required tree units applicable to the lot, apply the following procedures:

1. Inventory all existing significant trees on the subject lot; and
2. Assign a tree unit to each significant tree using the corresponding tree unit set forth in Table 20.52.130(C); and
3. Add the tree units together to compute the total existing tree units and subtract the tree units of those significant trees removed to determine the net existing tree units (do not round fractions); and
4. Subtract the net existing tree units from the required tree units determined in this subsection (C) to establish:
 - a. If the net existing tree units equal or exceed the required tree units then no supplemental trees are required; or
 - b. If the net existing tree units are less than the required tree units then supplemental trees are required pursuant to subsection (D) of this section.

Table 20.52.130(C) Existing Tree Unit

Tree Type	Diameter Breast Height of Existing Tree	Tree Unit
Deciduous	6 to 10 inches	0.75
	Greater than 10 inches	1.0 0.75
Coniferous	6 to 10 inches	0.75
	Greater than 10 inches, but less than 50 36 inches	1.0 0.75
	50 36 inches and greater	1.250

D. If supplemental trees are required, the quantity of trees is determined by applying the following procedures:

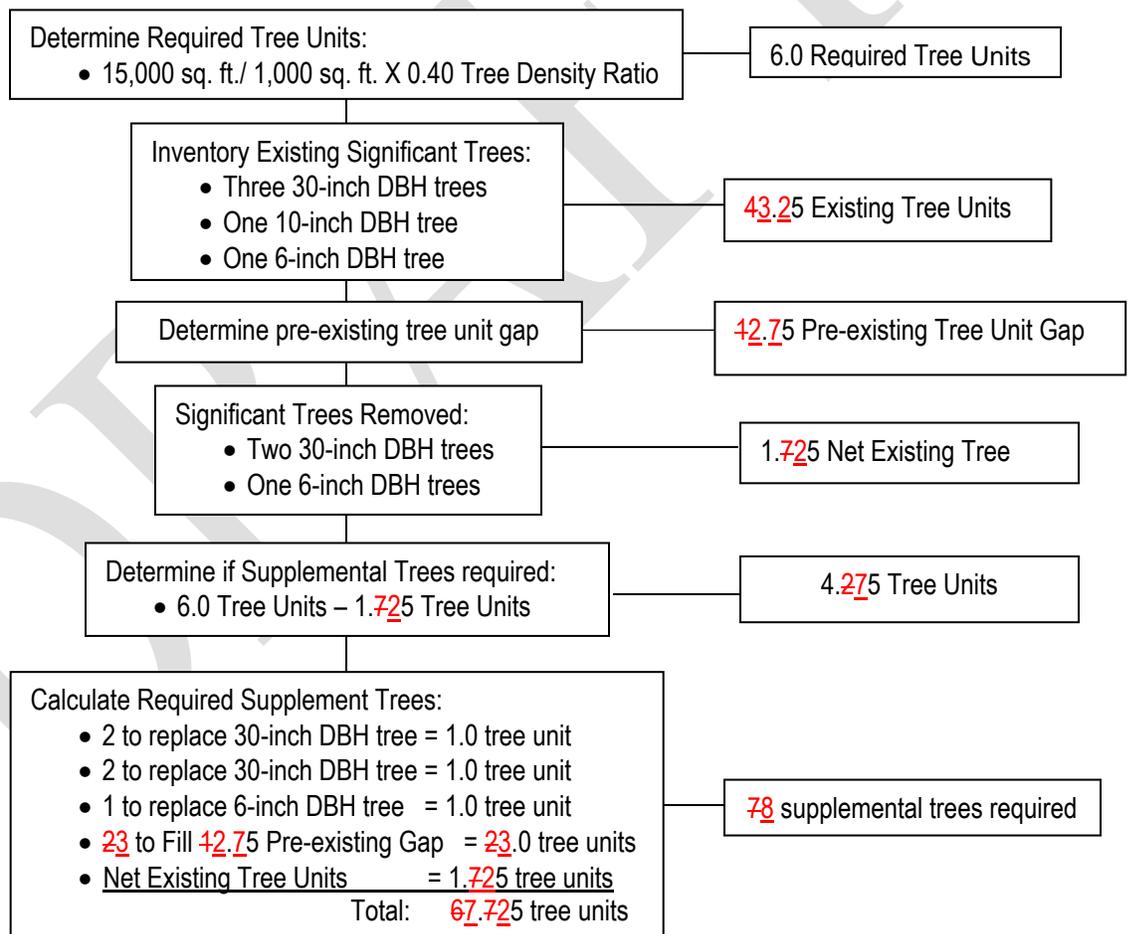
1. Determine if a pre-existing tree unit gap exists by subtracting the total existing tree units from the required tree units:
 - a. If the difference is less than zero round to zero;
 - b. A difference of zero means no pre-existing tree unit gap is present;
 - c. If the difference is greater than zero, the difference is the pre-existing tree unit gap;
2. To calculate the quantity of supplemental trees required, apply the provisions in subsection (D)(3) of this section first to those supplemental trees replacing an existing significant tree starting in order with the largest tree to the smallest tree, and then, if applicable, apply subsection (D)(3) of this section to those filling a pre-existing tree unit gap;
3. The quantity of supplemental trees is determined by:
 - a. Assigning a tree unit to each supplemental tree using Table 20.52.130(D);
 - b. Two supplemental trees shall be required for replacing each existing significant tree having a diameter breast height of 24 inches and larger subject to the limitation in subsection (D)(3)(d) of this section, and consistent with subsection (D)(2) of this section these shall be counted first;
 - c. The quantity of supplemental trees shall be of a sufficient number that their total assigned tree units added to the net existing tree units shall equal or exceed the minimum required tree units established in subsection (B) of this section; and
 - d. Supplemental trees in excess of those needed to meet the minimum required tree units shall not be required.

e. See Diagram 20.52.130 for an example of calculating supplemental trees.

Table 20.52.130(D) Supplemental Tree Unit

Purpose of Supplemental Tree	Diameter Breast Height of Removed Tree	Tree Unit for Supplemental Trees
Replace an existing significant tree	6 inches to less than 24 inches	1.0
	24 inches and larger	0.5
Fill a pre-existing tree unit gap	Not applicable	1.0

Diagram 20.52.130 Example Calculating Supplemental Trees



4. ~~Minimum Development Standards Applicable to All Supplemental Trees.~~

~~a. To be eligible as a supplemental tree, the tree species must be selected from the appropriate list set forth in the “City of Medina List of Suitable Tree Species” established in MMC 20.52.050;~~

~~b. Trees shall be planted on the subject lot;~~

~~c. Each supplemental tree shall have a minimum caliper of two inches or, if the tree is coniferous, it shall have a minimum height of six feet at the time of final inspection by the city;~~

~~d. Trees shall be planted in a manner of proper spacing and lighting that allows them to grow to maturity;~~

~~e. Existing trees within the boundaries of the lot having less than six inches diameter breast height may count as supplemental trees provided the tree meets all other requirements applicable to a supplemental tree;~~

~~f. Supplemental trees replacing existing significant trees shall have at least one tree be of the same plant division (coniferous or deciduous) as the significant tree it is replacing; and~~

~~g. The owner of the subject lot shall take necessary measures to ensure that supplemental trees remain healthy and viable for at least five years after inspection by the city and the owner shall be responsible for replacing any supplemental trees that do not remain healthy and viable for the five years after inspection by the city.~~

~~E. All trees used to satisfy the supplemental tree requirements of this chapter shall be included as a significant tree for purposes of this chapter.~~

~~F. In lieu of the supplemental tree requirements prescribed by this section, an owner may satisfy the requirements for supplemental trees by meeting the requirements for off-site tree planting set forth in MMC 20.52.140.~~

20.52.140 Off-site tree planting Supplemental tree standards and priorities.

~~A. Where this chapter authorizes off-site tree plantings, an owner may use the provisions of this section to satisfy requirements for planting trees on-site.~~

~~B. Except where contribution to the Medina tree fund is used in lieu of planting required trees, application of this section shall not result in planting trees below the minimum requirements for on-site plantings.~~

~~C. An owner may plant required trees at an off-site location provided all of the following are satisfied:~~

~~1. The off-site location is within the boundaries of the city including:~~

~~a. Private property with the written consent of the owner of the off-site location;~~

~~b. City property with the written approval of the director;~~

~~e. Other public property with the written consent of the entity with jurisdiction over the off-site location;~~

~~2. Existing trees at the off-site location shall not be included as satisfying tree planting requirements;~~

~~3. Trees planted off-site in lieu of on-site requirements shall not be counted as an existing tree on the property where the off-site tree is located;~~

~~4. Trees planted off-site in lieu of on-site requirements shall meet development standards including:~~

~~a. Having a minimum caliper of two inches or, if the tree is coniferous, having a minimum height of six feet at the time of final inspection by the city;~~

~~b. If applicable, having at least one tree of the same plant division (coniferous or deciduous) as the significant tree it is replacing;~~

~~c. The owner of the off-site property shall take necessary measures to make certain that the trees planted to satisfy the requirements of this chapter remain healthy and viable for at least five years after inspection by the city, and the owner shall be responsible for replacing any subject trees that do not remain healthy and viable for the five years after inspection by the city.~~

~~D. In lieu of planting trees, an owner may contribute to the Medina tree fund provided the following are satisfied:~~

~~1. When the contribution is for replacing an existing significant tree, payment is at a rate of:~~

~~a. Two hundred dollars per each diameter breast height inch of the significant tree where the tree removed has less than a 20-inch diameter breast height size;~~

~~b. Two hundred fifty dollars per each diameter breast height inch of the significant tree where the tree removed has at least a 20-inch diameter breast height, but less than 36-inch diameter breast height size;~~

~~c. Four hundred dollars per each diameter breast height inch of the significant tree where the tree removed has at least a 36-inch diameter breast height or larger size;~~

~~2. When the contribution is for required tree plantings used to satisfy the pre-existing tree unit gap determined in MMC 20.52.130(D)(1), payment shall be at a rate of \$1,700 per required tree not planted.~~

~~E. An owner may select to apply a combination of planting trees on-site, off-site and/or contributing to the Medina tree fund provided:~~

~~1. The combination is consistent with the provisions of this chapter; and~~

~~2. The combination results shall be equivalent to or greater than the minimum requirements for on-site plantings.~~

~~F. Consistent with the authority granted in MMC 20.10.040, the director may establish additional administrative rules as necessary relating to the care and maintenance of off-site trees.~~

A. To be eligible as a supplemental tree, the tree species must be selected from the appropriate list set forth in the “City of Medina List of Suitable Tree Species” established in MMC 20.52.050 and shall meet the following general requirements:

1. Each supplemental tree shall have a minimum caliper of two inches, or, if the tree is coniferous, it shall have a minimum height of six feet at the time of final inspection by the city;
2. Trees shall be planted in a manner of proper spacing and lighting that allows them to grow to maturity;
3. Existing trees within the boundaries of the lot having less than six inches diameter breast height may count as supplemental trees provided the tree meets all other requirements applicable to a supplemental tree;
4. Supplemental trees replacing existing significant trees shall have at least one tree be of the same plant division (coniferous or deciduous) as the significant tree it is replacing; and
5. The owner of the subject lot shall take necessary measures to ensure that supplemental trees remain healthy and viable for at least five years after inspection by the city and the owner shall be responsible for replacing any supplemental trees that do not remain healthy and viable for the five years after inspection by the city.

B. All trees used to satisfy the supplemental tree requirements of this chapter shall be included as a significant tree for the purpose of this chapter.

~~C. Where supplemental trees are required pursuant to MMC 20.52.130(D), the trees shall be planted in the following order of priority:~~

~~1. On-site and adjacent right-of-way. The preferred locations for on-site supplemental trees are in the following order of priority from most important to least important:~~

- ~~a. Adjacent to critical areas and their associated buffers as defined in MMC Chapters 20.50 and 20.67;~~
- ~~b. Adjacent to a low impact development (LID) stormwater facility;~~
- ~~c. Within the first 15 feet of the front property line.~~
- ~~d. Within the immediately adjacent right-of-way.~~

~~2. Off-site. An owner may elect to plant the required trees off-site upon written request, and approval from the City. Except where contribution to the Medina tree fund is used in lieu of planting required trees, application of this section shall not result in planting trees below the minimum requirements for on-site plantings. Off-site locations include:~~

a. City-owned properties;

b. Street rights-of-way not immediately adjacent to the property;

c. Private property with the written consent of the owner of the off-site location;

d. Other public property with the written consent of the entity with jurisdiction over the off-site location;

e. Any other property determined appropriate by the director.

3. Fee-in-Lieu. If the director or designee determines there is insufficient area to replant on-site or within the adjacent public right-of-way, the director or designee may authorize payment of a fee-in-lieu in accordance with MMC. 20.52.330.

D. An owner may elect a combination of planting trees on site, off site and/or fee-in-lieu upon written request, and approval by the City, provided:

1. The combination is consistent with the provisions of this chapter; and

2. The combination results shall be equivalent to or greater than the minimum requirements for on-site plantings.

E. Consistent with the authority granted in MMC 20.10.040, the director may establish additional administrative rules as necessary relating to the care and maintenance of off-site trees.

F. Existing trees at the off-site location shall not be included as satisfying tree planting requirements.

G. Trees planted off-site in lieu of on-site requirements shall not be counted as existing trees on the property where the off-site tree is located.

20.52.150 Minimum restoration standards for land not under development.

A. The requirements set forth in this section apply to tree removals on lots not meeting the criteria for land under development set forth in MMC 20.52.100.

B. Removal of significant trees on a lot, including hazard and nuisance trees, is authorized only if the restoration requirements in Table 20.52.150 are satisfied, or if the property meets the requirements prescribed in subsection (K) of this section.

Table 20.52.150 Tree Restoration Standards

	Diameter Breast Height of Removed Tree	Restoration Requirements
	6 to 10 inches	Plant one tree

	Diameter Breast Height of Removed Tree	Restoration Requirements
Each Significant Tree	Greater than 10 inches, but less than 24 inches	Plant two trees
	24 inches and larger	Plant three trees
	Legacy trees	See MMC 20.52.120
	Hazard trees – 10 inches and larger	Plant one tree

C. To be eligible as a restoration tree, the tree species must be selected from the appropriate list in the “City of Medina List of Suitable Tree Species” established in MMC 20.52.050.

D. Restoration trees shall be planted within the boundaries of the lot, except as authorized pursuant to subsection (J) of this section.

E. Restoration trees shall be planted in a manner of proper spacing and lighting that allows them to grow to maturity.

F. Each restoration tree shall have a minimum caliper of two inches or, if the tree is coniferous, it shall have a minimum height of six feet at the time of final inspection by the city.

G. Existing trees on site having less than six inches diameter breast height may be included as restoration trees provided:

1. The subject tree is located within the boundaries of the lot; and
2. The subject tree meets all of the other requirements applicable to restoration trees.

H. The owner of the subject lot shall take necessary measures to make certain that restoration trees remain healthy and viable for at least five years after inspection by the city and the owner shall be responsible for replacing any restoration trees that do not remain healthy and viable for the five years after inspection by the city.

I. All trees used to satisfy the restoration requirements of this chapter shall be included as a significant tree for purposes of this chapter.

J. In lieu of the tree restoration requirements prescribed by this section, an owner may satisfy the requirements for restoration trees by meeting the requirements for off-site tree planting set forth in MMC 20.52.140.

K. The restoration requirements in Table 20.52.150 for removing significant trees shall be waived if the following criteria are satisfied:

1. The subject lot contains a sufficient number of significant trees to meet the performance standard for required trees established in MMC 20.52.130; and
2. The owner demonstrates that removal of the significant tree, including hazard and nuisance trees, will not result in a failure to meet the performance standards for required trees established in MMC 20.52.130. (Ord. 923 § 20, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.160 Lots 12,000 square feet or less.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.200 Hazard tree risk assessment.

A. Hazard trees are trees assessed by the city arborist as having a high to extreme risk rating using the International Society of Arborists Tree Risk Assessment Qualification (TRAQ) method in its most current form.

B. Steps in the TRAQ method in developing a tree risk rating include the following:

1. Identify possible targets and estimate occupancy rate;
2. Inspect tree and identify tree parts that could fail and strike targets (referred to as failure mode);
3. For each significant failure mode identified:
 - a. The likelihood of failure is assessed;
 - b. The likelihood of a tree part impacting a target is assessed;
 - c. The likelihood of a tree failure impacting a target is assessed;
 - d. Consequences of failure are estimated;
 - e. The risk is designated pursuant to the matrix in Table 20.52.200(C);
 - f. Possible mitigation treatments to reduce the risk are identified;
 - g. The risk is again designated pursuant to the matrix in Table 20.52.200(C) after mitigation treatment is completed.
4. When assessing the risk of a tree, the city arborist shall evaluate the tree based on existing conditions and shall exclude possible impacts caused by new development, any land alteration activity, or other similar such activities that might otherwise unnaturally cause the risk rating to increase.

C. The following table is from the International Society of Arborists TRAQ method and denotes the risk rating matrix used to assess levels of tree risk as a combination of likelihood of a tree failing and impacting a specified target, and the severity of the associated consequences should the tree or any part of the tree fail:

Table 20.52.200(C) Tree Risk Rating Matrix

Likelihood of Failure or Impact	Consequences			
	Negligible	Minor	Significant	Severe
Very Likely	Low Risk	Moderate Risk	High Risk	Extreme Risk
Likely	Low Risk	Moderate Risk	High Risk	High Risk

Likelihood of Failure or Impact	Consequences			
	Negligible	Minor	Significant	Severe
Somewhat likely	Low Risk	Low Risk	Moderate Risk	Moderate Risk
Unlikely	Low Risk	Low Risk	Low Risk	Low Risk

1. The consequences listed in Table 20.52.200(C) have meanings as follows:

a. Extreme Risk. This category applies to trees in which failure is “imminent” and there is a high likelihood of impacting a target, and the consequences of the failure are “severe.”

b. High Risk. This category applies to situations in which consequences are significant and likelihood is “very likely” or “likely,” or when consequences are “severe” and likelihood is “likely.”

c. Moderate Risk. This category applies to trees in which consequences are “minor” and likelihood is “very likely” or “likely” or when likelihood is “somewhat likely” and the consequences are “significant” or “severe.”

d. Low Risk. This category applies to trees in which consequences are “negligible” and likelihood is “unlikely”; or when consequences are “minor” and likelihood is “somewhat likely.”

2. Definitions of TRAQ method terminology that are not set forth in this chapter or Chapter 20.12 MMC can be found in the article “Qualitative Tree Risk Assessment” by E. Thomas Smiley, Nelda Matheny, and Sharon Lilly on file at Medina City Hall.

3. Potential targets are permanent structures or an area of moderate to high use. Where a target does not exist, applicants should consider routine pruning and maintenance to mitigate hazards.

D. Where a tree is found to have a high or extreme risk, the city arborist may authorize hazard pruning to mitigate the risk rather than removing the entire tree.

E. If the city arborist assesses a tree to have a high or extreme risk and mitigation of the risk through pruning or moving of potential targets is not feasible, the city arborist shall designate the tree a hazard tree. (Ord. 923 § 22, 2015)

20.52.210 Nuisance tree.

A. A nuisance tree, for purposes of this chapter, is a tree whose branches, stem and/or roots cause one or more of the following conditions to exist:

1. Substantial physical damage to public or private structures;
2. A qualified professional provides verification based on conditions on the property that substantial physical damage will occur within five years to a building containing a principal use;

3. Substantially impairs, interferes or restricts streets, sidewalks, sewers, power lines, utilities or other public improvements;
4. Substantially impairs, interferes, or obstructs any street, private lane, or driveway; or
5. The tree is diseased and restoration of the tree to a sound condition is not practical.

B. Designation of a nuisance tree is by the director following receipt of a written request and findings are made supporting a nuisance designation using the following criteria:

1. One or more of the conditions in subsection (A) of this section is present;
2. The nuisance associated with the subject tree cannot be corrected by reasonable measures including, but not limited to, pruning, cabling, bracing, or if feasible, relocating structures and other improvements; and
3. Other relevant information provided by the applicant and the city's inspection of the subject tree. (Ord. 923 § 23, 2015)

20.52.220 City arborist established.

The director shall appoint a person to the position of city arborist who shall be assigned responsibility for evaluating the hazardousness of trees and other duties consistent with the requirements of this chapter. (Ord. 923 § 24, 2015)

20.52.300 Notice of tree removal involving no construction.

A. Property owners removing a significant tree requiring a permit under MMC 20.52.310, but not undergoing new construction or land alteration activity, shall notify the city at least 10 calendar days prior to the date the tree will be removed. The director may reduce this time with receipt of a written request from the applicant and upon finding that the lesser time will provide the city reasonable notification.

B. All property owners removing a nonsignificant tree that does not require a permit are encouraged, but not required, to notify the city of the tree removal at least 48 hours prior to the tree being removed. (Ord. 923 § 25, 2015)

20.52.310 Tree activity permits.

A. This section sets forth the criteria for applying permits that implement this chapter. All uses and activities not requiring a permit must still comply with this chapter.

B. An administrative tree activity permit meeting the requirements set forth in MMC 20.70.050 is required for the following activities unless a permit is required elsewhere under this section:

1. Land designated under development as determined in MMC 20.52.100;
2. Removal at any time of a significant tree, including hazard and nuisance trees, located on private property or Washington State controlled land associated with the SR 520 highway;
3. Removal of any nonsignificant tree, including hazard and nuisance trees, located on private property or Washington State controlled land associated with the SR 520 highway that is located within 200 feet of Lake Washington pursuant to MMC 20.60.050;

4. Removal or pruning of any tree that is:

- a. Six inches or larger diameter breast height size;
- b. Located in any open or closed city right-of-way; and
- c. Designated a hazard tree pursuant to MMC 20.52.200, or involving hazard pruning authorized by the director.

C. An administrative right-of-way tree activity permit meeting the requirements set forth in MMC 20.71.050 is required for the following activities:

1. Removal of any tree, excluding hazard trees, that is:

- a. Six inches or larger diameter breast height size;
- b. Located in any open or closed city right-of-way;
- c. Application for the permit is made by the owner of property adjoining the right-of-way where the tree is located measured to the centerline of the right-of-way; and
- d. The removal does not require a nonadministrative right-of-way activity permit under subsection (D) of this section.

2. Pruning of any tree, excluding hazard pruning, that is:

- a. Six inches or larger diameter breast height size;
- b. Located in any open or closed city right-of-way;
- c. Application for the permit is made by an owner of property adjoining the right-of-way where the tree is located measured to the centerline of the right-of-way; and
- d. Excluding pruning activity that:
 - i. Follows ANSI standards in their most recent form;
 - ii. Does not endanger the life of the tree in the opinion of the director;
 - iii. Does not remove more than 25 percent of the natural canopy of the tree;
 - iv. Does not remove a limb having a diameter greater than three inches; and
 - v. Application for the pruning is made by an owner of property adjoining the right-of-way where the tree is located measured to the centerline of the right-of-way.

D. A nonadministrative right-of-way tree activity permit meeting the requirements set forth in MMC 20.72.090 is required for the following activities:

1. Removal of any tree, excluding hazard trees, which is:

- a. Six inches or larger diameter breast height size;

- b. Located in any open or closed city right-of-way; and
 - c. Application for the permit is made by an owner of property who is not adjoining the right-of-way where the tree is located measured to the centerline of the right-of-way.
2. Pruning or removal of any tree, excluding hazard trees and hazard pruning, for any purpose, which is:
- a. Six inches or larger diameter breast height size;
 - b. Located in any open or closed city right-of-way; and
 - c. Application for the permit is made by a public or private utility or their agent.
3. Removal at any time of a significant tree, excluding hazard trees, which is:
- a. Fifty inches or larger diameter breast height size;
 - b. Located in any open or closed city right-of-way; and
 - c. Application for the permit is made by an owner of property adjoining the right-of-way where the tree is located measured to the centerline of the right-of-way.

E. A nonadministrative tree activity permit meeting the requirements set forth in MMC 20.72.100 is required for the following:

- 1. Removal at any time of a significant tree, excluding hazard trees, which is:
 - a. Fifty inches or larger diameter breast height size;
 - b. Located on private property; and
 - c. Located outside of the footprint of a building containing the principal use of the property.
- 2. The director may modify the procedures for deciding a nonadministrative tree activity permit and approve the application using a Type 2 decision process provided:
 - a. The subject tree is designated a nuisance tree pursuant to MMC 20.52.210; and
 - b. During the public comment period, the city does not receive any written objection to a Type 2 decision decided by the director being used; and
 - c. The approval criteria in MMC 20.72.100 are satisfied. (Ord. 923 § 26, 2015)

20.52.320 Tree removal and planting preservation plan.

A. Permits for lands under development and permits for removing city trees in city rights-of-way shall include a tree removal and planting preservation plan containing the following information:

- 1. A survey plan prepared by a Washington State licensed surveyor that includes the following:

~~a. The location, genus, species, common name, and size of all significant trees located within the boundaries of the property and within any adjoining city rights-of-way;~~

~~ba.~~ Topography of the site at two-foot contour intervals;

~~eb.~~ Critical areas as defined in Chapters 20.50 and 20.67 MMC; ~~and.~~

~~d. If existing trees that are less than six inches diameter breast height are to be counted as supplemental trees, the location, genus, common name, and size of such tree.~~

2. A site plan drawing showing the following:

a. Proposed improvements, alterations or adjustments to the subject property including, but not limited to, buildings, driveways, walkways, patios, decks, utilities, and proposed contours;

b. Existing structures, whether proposed to remain or proposed for removal; ~~and.~~

c. The shoreline jurisdiction as defined in RCW 90.58.030, if applicable to the property.

3. A ~~conceptual or definitive~~ tree-planting plan that includes:

a. ~~Identification of all trees having a six inches or larger diameter breast height size to be retained and those to be removed;~~ The location, genus, species, common name, and size of all significant trees located within the boundaries of the property and within any adjoining city rights-of-way and notation of which significant trees will be retained and which are proposed to be removed.

b. ~~Analysis of required tree units, existing tree units, and net tree units;~~ If existing trees that are less than six inches diameter breast height are to be counted as supplemental trees, the location, genus, common name, and size of such tree.

c. Compliance with the following objectives:

i. Trees shall be incorporated as a site amenity with strong emphasis on tree protection. To the extent possible, forested sites should retain their forested look, value, and function after development.

ii. Trees should be preserved as vegetated islands and stands rather than as individual, isolated trees scattered throughout the site.

iii. Trees to be preserved shall be healthy and wind-firm as identified by a qualified arborist.

iv. Preservation of significant trees as follows:

1. Significant trees which form a continuous canopy.

2. Significant trees located adjacent to critical areas and their associated buffers.

3. Significant trees located within the first 15 feet adjacent to a property line.
 4. Significant trees which will be used as part of a low impact development (LID) storm water facility.
 5. Significant trees over sixty (60) feet in height or greater than twenty-four (24) inches diameter breast height.
- c. For lots larger than 20,000 square feet, excluding lots within the shoreline jurisdiction as defined by MMC 20.66.050, the tree density ratio shall be achieved as follows:
- i. At least 20 percent of the required significant trees as determined by MMC 20.52.130 shall be retained equally within the site perimeter as follows:
 1. 10 percent within the first 15-feet of the front property line.
 2. 10 percent within the first 15-feet of the rear property line.
 - ii. At least 20 percent of the required significant trees as determined by MMC 20.52.130 shall be retained within the site interior.
- e. Compliance with the required tree density ratio pursuant to MMC Table 20.52.130(B).
- ef. If applicable, a list of supplemental trees to be planted consistent with the requirements of this chapter.
- dg. If right-of-way trees are proposed for removal, an analysis of the tree mitigation and a list of replacement trees to be planted.
- eh. The list of required tree plantings shall include the size, genus, species and common names; and.
- fi. As applicable, a proposed ~~general planting landscaping~~ plan that includes the required tree plantings and other vegetation being planted, as appropriate, for determining compliance with other provisions of the Medina Municipal Code (i.e., grading and drainage and shoreline master program regulations).
- B. The director may authorize modifications to the tree ~~removal and planting preservation~~ plan on a case-by-case basis that reduce submittal requirements if the director concludes such information to be unnecessary.
- C. The director may require additional information to be included with the tree ~~removal and replacement preservation~~ plan, such as tree protection measures, where the director concludes the information is necessary to determine compliance with this chapter.
- D. The applicant may combine the survey, site plan drawing, and/or tree ~~replacement preservation~~ plan into a single document, or may combine the required information with other

documents, provided the city determines the submitted information is reasonably easy to understand. All plans shall be drawn to a scale acceptable by the director.

E. Permits not involving land under development do not require a tree ~~removal and planting preservation~~ plan. However, this shall not preclude the director from requiring such information as necessary to determine compliance with this chapter.

20.52.330 Fee-in-lieu of supplemental plantings.

A. The director or designee may authorize payment of a fee-in-lieu provided:

1. There is insufficient area on the lot or adjacent right-of-way to meet the number of replacement inches prescribed by MMC 20.52.130; or
2. Tree replacement provided within public right-of-way or a city park in the vicinity will be of greater benefit to the community.
3. Fees shall be provided in lieu of on-site tree replacement based upon the following:
 - a. The expected tree replacement cost including labor, materials, and maintenance for each replacement tree; and
 - b. The most current Council of Tree and Landscape Appraisers Guide for Plant Appraisal.
5. The applicant executes a written agreement with the City demonstrating compliance with the criteria in this section.

20.52.3340 Tree protection measures during construction.

A. Tree protection measures shall be implemented and maintained before and during all construction activities to ensure the preservation of significant trees that are planned to be retained. Tree protection measures shall be shown on grading and drainage plans, tree protection plans, and construction mitigation plans.

B. Tree protection measures shall include, but are not limited to, the following:

1. Establish tree protection zones and install protective fencing at the drip line or other barriers that are at least four feet in height, except where tree protection zones are remote from areas of land disturbance, and where approved by the director, alternative forms of tree protection may be used in lieu of tree protective fencing; provided, that the critical root zones of protected trees or stands of trees are clearly delineated and protected;
2. Limit grading levels around subject trees to not raise or lower grades within the larger of the following areas:
 - a. The drip line area of the tree; or
 - b. An area around the tree equal to one foot in diameter for each inch of tree diameter measured at DBH;
3. Installation of a tree well, but only where necessary and only with pre-approval of the city;

4. Designation of areas on site for parking, material and equipment storage, construction ingress and egress, and similar designated areas that do not negatively impact significant trees;

5. Locate trenches for utilities that minimize negative effects on the tree root structure with provisions for filling the trenches with a suitable growing medium in the vicinity of the trees;

6. Employ measures to protect critical root systems from smothering and compaction;

7. Implement a tree care program during construction to include watering, fertilizing, pruning and pest control; and

8. Measures for the disposal of potentially harmful items such as excess concrete, polluted water runoff, and other toxic materials.

C. The director may approve deviations to the tree protection measures set forth in subsection (B) of this section if the director determines that the deviation will provide equal or better tree protection than the required tree protection measure. (Ord. 923 § 28, 2015)

20.52.400 City tree removals.

A. This section sets forth the requirements applicable to all trees located on city-owned property and city rights-of-way.

B. General Provisions.

1. This section is intended to be of general application for the benefit of the public at large; it is not intended for the particular benefit of any individual person or group of persons other than the general public;

2. In addition to the limits set forth in MMC 20.52.020, no city tree shall be broken, injured, mutilated, killed, destroyed, pruned or removed unless authorized by the provisions of this section; and

3. The exemptions in MMC 20.52.030 apply to this section.

C. Pruning and trimming of city trees is permitted provided ANSI standards in their most recent form are followed and the trimming and pruning comply with the requirements for tree activity permits set forth in MMC 20.52.310.

D. Removal of a city tree located within an open or closed city right-of-way may be allowed for the following:

1. Hazard trees designated pursuant to MMC 20.52.200;

2. Nuisance trees designated pursuant to MMC 20.52.210;

3. Trees not suitable under utility lines, or in the city right-of-way, as prescribed in the “City of Medina List of Suitable Tree Species”;

4. Any tree having less than a 10-inch diameter breast height size; and any trees not included on the “City of Medina Suitable Tree Species List” for the right-of-way having less than a 36-inch diameter breast height size;
5. Trees where pruning and trimming for utilities caused significant defects to the primary stem of the tree resulting in significant abnormal growth;
6. Trees where removal is necessary to allow vehicle access to a property;
7. Trees where removal is necessary to restore a view significantly obstructed by the tree provided all of the following criteria are satisfied:
 - a. The owner of the adjoining property to the subject tree and the city both accept allowance to have the tree removed;
 - b. The person claiming the view obstruction establishes the tree causes an unreasonable view obstruction using the provisions established in MMC 18.16.040 through 18.16.080; and
 - c. The approval of a nonadministrative right-of-way activity permit is obtained pursuant to MMC 20.72.090.

E. Where subsection (D) of this section allows removal of a city tree, the following shall apply:

1. Removal of city trees, including hazard and nuisance trees, is permitted only if replacement trees are planted in accordance with the requirements in Table 20.52.400(E)(1), except as allowed otherwise by this section;

Table 20.52.400(E)(1) Replacement City Trees

	Diameter Breast Height of Removed Tree	Significant/Nonsignificant Tree Species	Tree Replacement
Each Tree (Include Nuisance Trees)	Less than 6 inches	All	None
	6 to 10 inches	All	Plant one tree
	Greater than 10 inches, but less than 24 inches	Nonsignificant	Plant one tree
		Significant	Plant two trees
	24 inches and larger	Nonsignificant	Plant two trees
		Significant	Plant three trees
Each Hazard Tree	6 to 10 inches	All	None
	Greater than 10 inches	All	Plant one tree

2. Replacement trees shall meet the following standards:

- a. To be eligible as a replacement tree, the tree species must be selected from the appropriate list in the “City of Medina List of Suitable Tree Species” established in MMC 20.52.050;
- b. Replacement trees shall be planted within the city right-of-way adjoining the subject lot;
- c. Each replacement tree shall have a minimum caliper of two inches or, if the tree is coniferous, it shall have a minimum height of six feet at the time of final inspection by the city;
- d. Replacement trees shall be planted in a manner of proper spacing and lighting that allows them to grow to maturity;
- e. At least one replacement city tree shall be of the same plant division (coniferous or deciduous) as the city tree removed;
- f. Approval to remove a city tree shall include conditions to make certain that replacement trees remain healthy and viable for at least five years after inspection by the city, including measures to replace those replacement trees that do not remain healthy and viable;

3. In addition to the requirement for replacement trees in subsections (E)(1) and (2) of this section, the public benefits lost due to the removal of the city tree shall be mitigated by paying a contribution to the Medina tree fund in accordance with the following:

- a. The contribution shall be determined by multiplying the diameter breast height inches of the tree removed (significant and nonsignificant tree species) by a rate of \$25.00;
- b. Where more than one city tree is removed, the contribution for each removed tree shall be added together to produce the total payment to the Medina tree fund;
- c. The contribution rate for a city tree designated a hazard pursuant to MMC 20.52.200 is zero;
- d. If removal of the city tree was not authorized by the city at the time of its removal, the contribution rates shall triple and be in addition to any other penalties that might apply;
- e. Unless a city tree qualifies for the emergency exemption pursuant to MMC 20.52.030(B), city trees removed before a hazard or nuisance determination is made by the city shall be presumed not to be a hazard or a nuisance.

F. The following planting requirements apply within the city right-of-way when a city tree is removed:

1. The maximum number of trees in the city right-of-way shall be one tree for each 17 feet of linear public street frontage, or one tree for each 300 square feet of plantable area within the city right-of-way, whichever is greater, adjoining the subject lot;

2. The director may increase the maximum number of city trees prescribed in subsection (F)(1) of this section, provided there is sufficient space in the city right-of-way adjoining the lot to accommodate the increase in city trees;

3. If the tree replacement requirements prescribed in subsection (E) of this section would result in the total number of city trees in the right-of-way to exceed the maximum prescribed in subsection (F)(1) or (2) of this section, an applicant shall contribute \$290.00 to the Medina tree fund for each replacement tree above the maximum in lieu of planting replacement trees above the maximum;

4. If the tree replacement requirements prescribed in subsection (E) of this section would result in the total number of city trees in the right-of-way to be below the maximum prescribed in subsection (F)(1) or (2) of this section, an applicant may plant additional trees in the right-of-way, subject to the limits in subsection (F)(1) or (2) of this section, and reduce contributions to the Medina tree fund by:

- a. Six hundred dollars for each coniferous tree planted;
- b. Five hundred dollars for each deciduous tree planted; and

5. New trees shall not be planted within three feet of the edge of any paved roadway.

G. The requirements of this section may be used to satisfy the requirements set forth in MMC 20.52.410.

H. Where a proposal includes application of this section and application of MMC 20.52.130 and/or 20.52.150, the requirements for supplemental trees and restoration trees shall be applied independent of the requirements in this section for replacement trees. (Ord. 958 § 3, 2018; Ord. 923 § 29, 2015)

20.52.410 Minimum street tree standards.

A. This section shall apply to properties adjoining the following city rights-of-way:

1. Minor arterial and collector street rights-of-way as defined in Chapter 10.08 MMC;
2. NE 8th Street;
3. 82nd Avenue NE between NE 8th Street and NE 12th Street;
4. 84th Avenue NE south of NE 12th Street; and
5. Evergreen Point Road north of 78th Place NE.

B. The following street tree standards shall apply when the lot adjoining the right-of-way is under development pursuant to MMC 20.52.100:

1. There shall be at least one city tree planted for each 300 square feet of plantable area within the city right-of-way adjoining the lot with a minimum of two trees planted; and
2. The new city trees planted shall have a minimum two-inch caliper with coniferous trees also having a minimum height of six feet at the time of final inspection; and

3. The requirements of this subsection may be satisfied with existing trees in the adjoining city right-of-way measured to the centerline; and

4. New city trees shall not be planted within three feet of the edge of any paved roadway; and

5. Trees shall be planted in an informal pattern to create a natural appearance.

C. The following exceptions shall apply:

1. Shrubs, trees and plantings within the required sight line areas at private drives, private lane outlets and street intersections shall not interfere with required sight distances;

2. The director may waive the requirements of this section if the right-of-way to be planted is planned for modification in the Medina capital improvements plan. (Ord. 923 § 30, 2015)

20.52.420 Owner responsibility within city rights-of-way.

A. All owners of property adjoining a city right-of-way shall be responsible for maintaining all trees, shrubs, and other landscaping planted in the adjoining right-of-way by the property owner or previous owner of the property, or for which responsibility has been assumed by the owner through a recorded agreement with the city.

B. All owners of the property adjoining a city right-of-way shall ensure the trees, shrubs and landscaping in the right-of-way adjoining their property do not interfere with the free passage of vehicles and pedestrians or cause any risk of danger to the public or property.

C. No hazardous or destructive tree species shall be planted in the city rights-of-way. The city shall maintain a list of suitable trees that are acceptable to be planted in city rights-of-way consistent with MMC 20.52.050.

D. The requirements of this section shall apply equally to the city rights-of-way whether the city's title to the right-of-way was obtained by dedication, condemnation, deed or in any other manner.

E. For the purpose of this chapter, an owner shall be considered adjoining up to the centerline of the city right-of-way. (Ord. 923 § 31, 2015)

20.52.500 Liability.

Consistent with MMC 20.10.070, nothing contained in this chapter shall be construed or form the basis for any liability on the part of the city, or its officers, agents, consultants or employees, for any injury or damage resulting from any person's failure to comply with the provisions of this chapter or by reason of or in consequence of any act or omission in connection with the implementation of or enforcement of this chapter. (Ord. 923 § 32, 2015)

20.52.510 Other general provisions.

A. Implementation and Costs.

1. All costs associated with trimming and removal of trees shall be the responsibility of the applicant or property owner; and

2. Any tree trimming or removal governed by this chapter shall be performed by a state of Washington licensed tree service contractor, bonded and insured for the liabilities associated with tree removal.

B. Survey. The city may require as a condition of approving a tree removal permit that the applicant obtain a survey by a state of Washington licensed surveyor to determine if the trees described in the application are located on the subject property, or if a tree is located within a city right-of-way.

C. Supplemental Notice. The following shall supplement noticing requirements set forth in MMC 20.80.140(A) when applied to tree activity permits:

1. Notice shall be posted on or near the subject tree or trees in a manner that clearly identifies all trees being considered under the application;
2. The director may approve the use of a variety of reasonable methods to identify trees provided the methods clearly identify all trees being considered under the application; and
3. The director may require additional notices to be posted when, in the opinion of the director, it is determined necessary to provide reasonable notification to the public of a pending application.

D. Limitations on Occupancy. A certificate of occupancy shall not be issued until all required tree plantings and landscaping associated with this chapter is complete and receives final approval from the city. Temporary occupancy may be granted pursuant to MMC 20.40.100 before completion of the tree planting and landscaping work provided all of the following criteria are satisfied:

1. The property owner provides a financial guarantee to the city to ensure completion of the tree planting and landscaping;
2. The financial guarantee may take the form of a bond, line of credit, cash deposit, or another form acceptable to the city;
3. The minimum amount of the financial guarantee shall be 150 percent of the estimated cost of landscaping and required tree plantings not completed at the time of the inspection; and
4. Terms of the financial guarantee shall include, but are not limited to, conditions for approving the financial guarantee, a timeframe for the work to be completed, and terms under which the city shall release the financial guarantee.

E. View and Sunlight Obstructions Caused by Trees. Pursuant to MMC 18.16.040, unreasonable obstructions of views or sunlight by uncontrolled growth or maintenance of trees may constitute a private nuisance subject to redress as set forth in Chapter 18.16 MMC. (Ord. 923 § 33, 2015)

Chapter 20.52

TREE MANAGEMENT CODE

Sections:

- 20.52.010 Purpose and intent.
- 20.52.015 General provisions and applicability.
- 20.52.020 Applicability of the tree management code.
- 20.52.025 *Repealed.*
- 20.52.030 Exemptions.
- 20.52.040 Using this chapter.
- 20.52.050 Designation of significant tree species.
- 20.52.060 *Repealed.*
- 20.52.070 *Repealed.*
- 20.52.080 *Repealed.*
- 20.52.090 *Repealed.*
- 20.52.100 Designation of land under development.
- ~~20.52.110 *Repealed.*~~
- 20.52.120 Legacy and Landmark tree protection measures.
- 20.52.130 Minimum preservation standards for land under development.
- 20.52.140 Supplemental tree standards and priorities.
- 20.52.150 Minimum restoration standards for land not under development.
- 20.52.160 *Repealed.*
- 20.52.200 Hazard tree risk assessment.
- 20.52.210 Nuisance tree.
- 20.52.220 City arborist established.
- 20.52.300 Notice of tree removal involving no construction.
- 20.52.310 Tree activity permits.
- 20.52.320 Tree preservation plan.
- 20.52.330 Fee-in-lieu of supplemental plantings.
- 20.52.340 Tree protection measures during construction.
- 20.52.400 City tree removals.
- 20.52.410 Minimum street tree standards.
- 20.52.420 Owner responsibility within city rights-of-way.
- 20.52.500 Liability.
- 20.52.510 Other general provisions.

20.52.010 Purpose and intent.

A. The purpose of the tree management code is to preserve the existing sylvan appearance through long-term preservation and planting of trees that contribute to the community's distinct features including proximity to the lakeshore, views, heavily landscaped streetscapes, and large tracts of public and private open spaces.

B. The intent of this chapter is to establish regulations and standards that:

1. Protect and preserve the existing tree canopy;

2. Provide homeowners flexible standards that encourage the preservation of trees while recognizing the importance of having access to sunlight and views;
3. Recognize through the standards in this chapter that certain factors may require the removal or pruning of certain trees due to circumstances such as disease, danger of falling, proximity to structures and improvements, interference with utility services, protection of view and sunlight, and the reasonable enjoyment of property;
4. Encourage best practices for the planting and managing of trees appropriately to minimize hazards, nuisances, and maintenance costs while allowing access to sunlight and views;
5. Prevent the indiscriminate removal or destruction of trees except as provided for in accordance with this chapter;
6. Promote building and site planning practices consistent with the purpose and intent of this chapter;
7. Ensure prompt development, restoration, replanting and effective erosion control of property after tree removal with landscape plans and other reasonable controls; and
8. Foster public education on the local urban forestry program and encourage good tree management consistent with this chapter. (Ord. 923 § 9, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.020 Applicability of the tree management code.

A. No person or their representative, directly or indirectly, shall remove or destroy trees located on private property or public property within the jurisdictional boundaries of the city except as provided for in accordance with this chapter.

B. Additional tree management requirements are set forth in the Medina shoreline master program as provided in MMC 20.66.050. (Ord. 923 § 10, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.025 Using this chapter.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.030 Exemptions.

The following are exempt from the requirements in this chapter:

A. Trees less than six inches diameter breast height unless the tree is used to satisfy a requirement of this chapter;

B. Normal and routine trimming and pruning operations and maintenance of trees and vegetation on private property following the most current ANSI standards;

C. Emergency tree removal or hazard pruning for any tree that poses an imminent threat to life or property provided:

1. The city is notified within seven days after the emergency tree removal or hazard pruning takes place and evidence is provided of the imminent threat supporting the emergency tree removal; and

2. If evidence of the imminent threat is not provided, or the director determines the evidence does not warrant an emergency tree removal, the director may require the responsible person to obtain a permit as prescribed by this chapter and require compliance with the requirements of this chapter;

D. Trimming and pruning operations and maintenance of trees and vegetation following the most current ANSI standards or removal of trees performed by the city or a contractor contracted by the city within a public right-of-way or city-owned parkland;

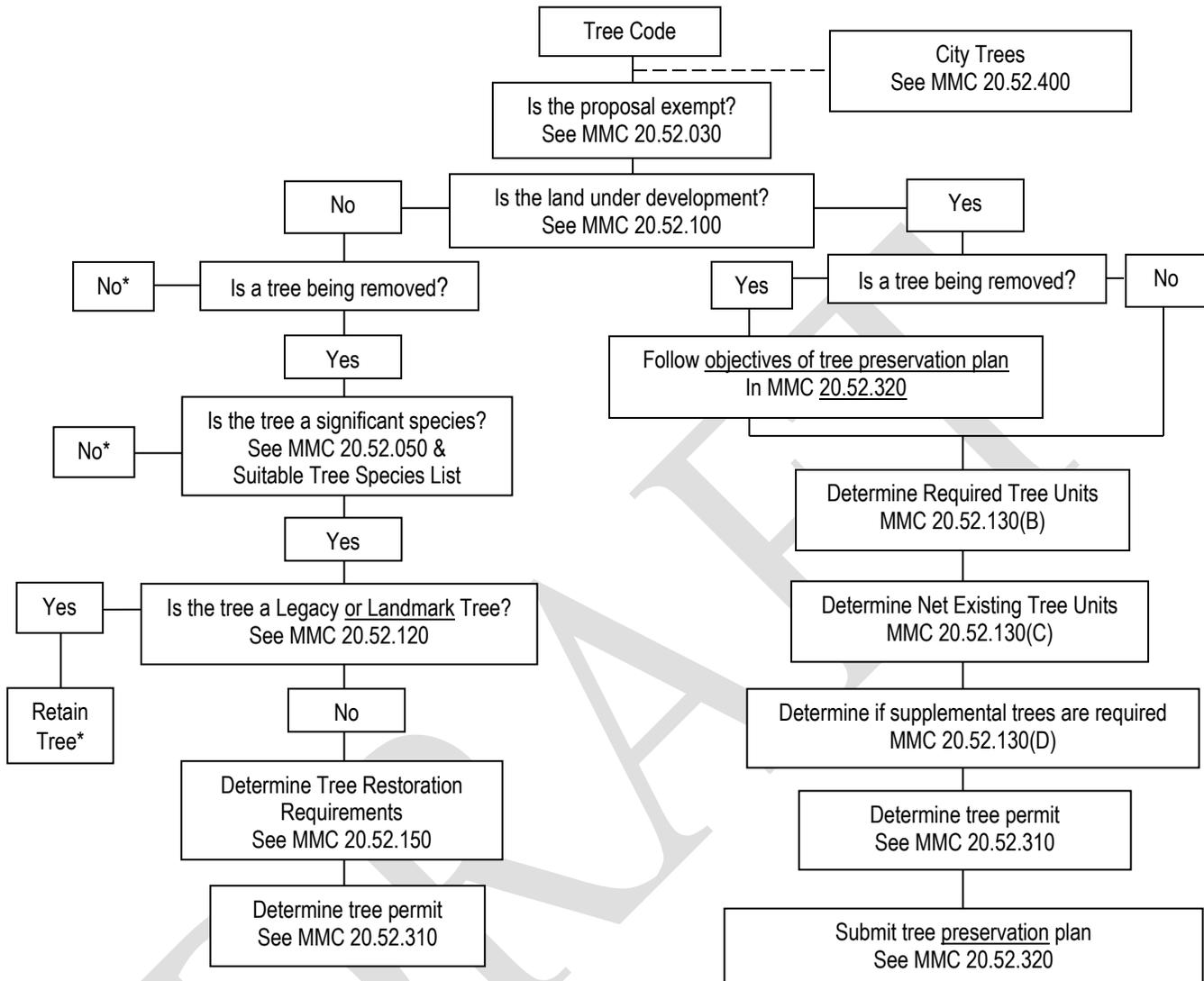
E. Removal of trees and vegetation management by the city or an agency under contract with the city for purposes of installing and maintaining fire hydrants, water meters, pumping stations, or similar utilities; or

F. The removal of a dead tree where the director pre-determines that the tree died from naturally occurring causes. (Ord. 923 § 12, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.040 Using this chapter.

This chapter prescribes the requirements for tree preservation and planting on lands undergoing development, and the requirements for removal of significant trees on private and public lands. Diagram 20.52.040 offers a user's guide that outlines the general process for applying the provisions of this chapter.

Diagram 20.52.040



* Denotes no further action required.

20.52.050 Designation of significant tree species.

A. A list of suitable tree species consisting of coniferous and deciduous trees is set forth in the document entitled “City of Medina List of Suitable Tree Species,” adopted by Ordinance No. 923 and on file with the city for the purpose of establishing significant tree species on private property, public property, and city rights-of-way; and tree species that are eligible for credits in this chapter.

B. The director shall maintain the “City of Medina List of Suitable Tree Species” document at Medina City Hall and may administratively modify the list consistent with the following criteria:

1. The designation of coniferous trees should include all species excluding tree species known to have invasive root structures and to be fast growing such as Leyland cypress and should also exclude trees planted, clipped or sheared to be used as a hedge;

2. The designation of deciduous trees should include those suitable to United States Department of Agriculture Plant Hardiness Zones 8 and 9, excluding those trees with crown diameter of 10 feet or less at maturity;

3. Plantings of the following tree species within the city's rights-of-way shall be prohibited: London plane, quaking aspen, Lombardy poplar, bolleana poplar, cottonwood, and bigleaf maple.

C. The director shall submit proposals to modify the "City of Medina List of Suitable Tree Species" to the city council for their consideration. The city council may approve, modify or deny the proposed modifications. The city council may also decline to take action on the proposed modifications, in which case the modifications shall be incorporated into the list and take effect five days after the date the city council declines to take action.

D. The "City of Medina List of Suitable Tree Species" is used in conjunction with the definition of significant tree set forth in MMC 20.12.200 to denote the term significant tree as used in this chapter. (Ord. 923 § 14, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.060 Notice of tree removal involving no construction.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.070 Tree removal and replacement plan.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.080 Designation of significant tree species.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.090 Tree replacement requirements.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.100 Designation of land under development.

Land is designated as under development for purposes of this chapter if one or more of the following conditions is present:

A. Any development activity requiring a building permit where:

1. Construction of a dwelling having a gross floor area of 2,500 square feet or more;
2. Construction of accessory buildings on property containing a residential use, or supporting a residential use, where the total gross floor area of all accessory buildings on the lot is 1,000 square feet or more;
3. Any building constructed to be occupied principally by a nonresidential use where the gross floor area of the building is 1,000 square feet or more;
4. Any series of exterior alterations, modifications or additions that over a four-consecutive-year period increases the total building footprint on a lot by more than 500 square feet or 15 percent, whichever is larger;

5. Construction of any structures, including but not limited to driveways, decks, patios, and walkways, that over a four-consecutive-year period increases the impervious surface on the lot by a total of 2,000 square feet or more;

6. Grading that over a four-consecutive-year period totals 2,000 cubic yards or more.

B. Any development activity requiring a building permit, a right-of-way permit, and/or a land use or shoreline permit where:

1. One or more significant trees are removed, with at least one tree having a 10-inch diameter breast height or larger size; or

2. Four or more significant trees are removed, provided each has less than a 10-inch diameter breast height size; and

3. The criteria in subsections (B)(1) and (2) of this section shall include the following trees:

a. Significant trees removed within two years prior to the submittal of an application for such permits; or

b. Significant trees removed within two years after such permits are finalized by the city and the project completed.

C. Clearing or grubbing of land that:

1. Is located outside of city rights-of-way;

2. Requires no permits, except for a tree permit; and

3. Removes four or more significant trees, with at least four trees having a 10-inch diameter breast height or larger size, over a four-consecutive-year period.

D. The counting of removed trees under subsections (B) and (C) of this section shall not include those trees designated as a hazard or nuisance tree pursuant to MMC 20.52.200 and 20.52.210, respectively. (Ord. 925 § 1, 2015; Ord. 923 § 16, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.015 General provisions and applicability:

Where land is designated as under development pursuant to MMC 20.52.100, the preservation of healthy trees shall be considered in accordance with the following guidance:

1. Tree preservation shall be included as a primary step in site planning and shall be achieved by meeting the minimum required tree units established in Table 20.52.130(B).

2. Site design strategies and specific development site areas demonstrating preservation of significant trees shall be presented at the pre-application meeting with the city.

3. A tree preservation plan shall be required that demonstrates the objectives outlined in MMC 20.52.320.

4. Any applicable grading plans, pursuant to MMC Chapter 20.43, shall be developed to avoid significant alteration to the grades around preserved trees.
5. Multiple applications of the tree preservation requirements in this chapter over a 10-year period shall not cause the number and size of trees required to be retained to be reduced below the number and size of trees required to be retained with the first application.
6. When calculating tree preservation requirements, trees excluded from preservation requirements shall not be included in the calculation.
7. For the purpose of calculating tree density requirements, critical areas and their associated buffers shall be excluded from the lot area used for calculation (example: a 16,000 square foot lot has a stream running through its property that encompasses 1,500 square feet including the stream buffer. The lot area used for tree density calculation would be 14,500 square feet (16,000 – 1,500 = 14,500) provided:
 - a. Critical areas shall be limited to wetlands, streams, geologically hazardous areas, conservation easements, and their associated buffers as described in MMC Chapters 20.50 and 20.67; and
 - b. Removal of any vegetation or woody debris, including trees, from a critical area is subject to the regulations in MMC Chapters 20.50 and 20.67.
8. All of the following shall be excluded from the requirements of this chapter:
 - a. Hazard trees designated pursuant to MMC 20.52.200;
 - b. Nuisance trees designated pursuant to MMC 20.52.210 and where, if applicable, re-development does not remedy the conditions causing the nuisance;
 - c. Those significant trees having less than a 24-inch diameter breast height size and located within the footprint of the principal building on the lot.

20.52.110 Repealed.

20.52.120 Legacy and Landmark tree protection measures.

This section applies to trees designated as Legacy and Landmark trees, which are native trees that because of their age, size and condition are recognized as having outstanding value in contributing to the character of the community. Legacy and Landmark trees within the shoreline jurisdiction are regulated in MMC 20.66.050.

A. A Legacy or Landmark tree shall be designated by meeting the following criteria:

1. Legacy tree:
 - a. The tree species is denoted as a legacy tree on the “City of Medina List of Suitable Tree Species”; and

- b. The diameter breast height of the tree is 36 inches or larger but less than 100 inches; and
- c. The city arborist determines the tree to be healthy with a likelihood of surviving more than 10 years based on assumptions that:
 - i. The tree is properly cared for; and
 - ii. The risk of the tree declining or becoming a nuisance is unenhanced by any proposed development.

2. Landmark tree:

- a. The tree species is denoted as a legacy tree on the “City of Medina List of Suitable Tree Species”; and
- b. The diameter breast height of the tree is 100 inches or larger; and
- c. The city arborist determines the tree to be healthy with a likelihood of surviving more than 10 years based on assumptions that:
 - i. The tree is properly cared for; and
 - ii. The risk of the tree declining or becoming a nuisance is unenhanced by any proposed development.

B. Legacy and Landmark trees shall be preserved and retained unless replacement trees are planted in accordance with the following:

1. Legacy tree:

- a. The quantity of replacement trees is calculated by multiplying the diameter breast height of each subject Legacy tree by the required percentage standards in Table 20.52.120(B) to establish the number of replacement inches; and
- b. All fractions of this section shall be rounded up to the next whole number.

Table 20.52.120(B) Legacy Tree Replacement Requirements

<u>Square Footage of the Lot Area</u>	<u>Required number of replacement caliper inches</u>
<u>Less than 10,001</u>	<u>10% removed DBH</u>
<u>From 10,001 to 13,000</u>	<u>15% removed DBH</u>
<u>From 13,001 to 15,000</u>	<u>25% removed DBH</u>
<u>From 15,001 to 20,000</u>	<u>35% removed DBH</u>

<u>Square Footage of the Lot Area</u>	<u>Required number of replacement caliper inches</u>
<u>Greater than 20,000</u>	<u>50% removed DBH</u>

The following example illustrates how to calculate legacy tree replacement units for a lot less than 10,001 square feet:

Lot size: 8,120 sq. ft.

Required tree units: $8,120 / 1,000 \times 0.4$ (tree density ratio) = 3.2 (rounded up to the next whole number) = 4

Total existing tree units on site: 6.5 units

Eight 10-inch DBH trees – 4 units (.5 units per tree)

Two 24-inch DBH trees - 1.5 units (.75 units per tree)

One 44-inch DBH Tree – 1 unit (1 unit per tree)

Total tree units removed: 3

Four 10-inch DBH trees = 2 units removed

One 44-inch DBH tree = 1 unit removed

Net tree units: 3.5

Supplemental Units Required: Yes (4 required tree units – 3.5 net tree units) = .5

Legacy Tree Removed: Yes – One 44-inch DHB tree

Legacy Tree Supplemental Units: $10\% \times 44 = 4.4$ (rounded up to the next whole number) = 5

Landmark Tree Removed: No

Total supplemental Requirements = 5.5 units (.5 supplemental units + 5 legacy supplemental units) = 6 trees

2. Landmark tree:

a. The quantity of replacement inches is calculated by multiplying the diameter breast height of each subject Landmark tree by 100 percent to establish the minimum number of replacement inches; and

b. All fractions of this section shall be rounded up to the next whole number.

C. In lieu of planting the replacement trees prescribed in subsection (B) of this section, an applicant may satisfy the tree replacement requirements by meeting the criteria set forth in MMC 20.52.330.

D. Other Provisions.

1. Each replacement tree shall meet the standards prescribed in MMC 20.52.140;

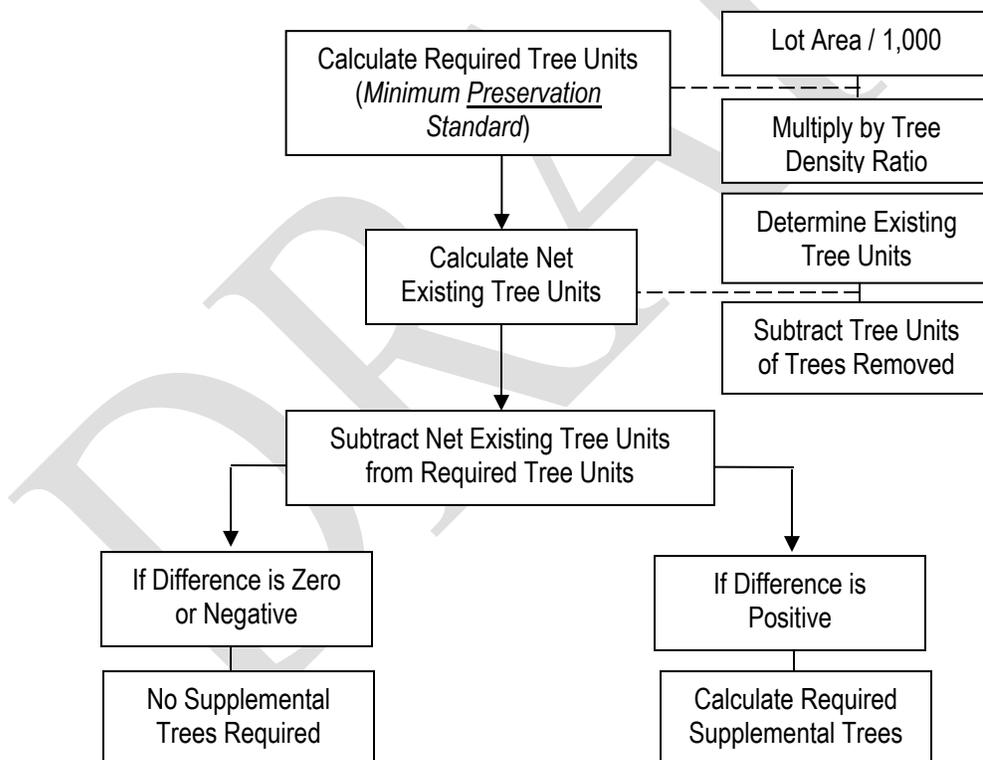
2. The tree replacement requirements set forth in subsections (B) and (C) of this section shall apply to the removal of a Legacy and Landmark trees in lieu of and in addition to requirements for removing nonlegacy trees;

3. The tree replacement requirements set forth in this section for a Legacy and Landmark tree shall not be used to satisfy requirements for removing nonlegacy trees or a pre-existing tree unit gap;
4. If the minimum preservation standards in MMC 20.52.130 are used, and if supplemental tree units are required, the tree replacement requirements set forth in subsections (B) and (C) of this section shall together count as one supplemental tree unit;
5. Off-site tree planting as described in MMC 20.52.140(C)(2) are acceptable alternatives to on-site replacement tree planting provided the director or designee approves of the off-site location in writing.

20.52.130 Minimum preservation standards for land under development.

A. The requirements and procedures set forth in this section shall apply to lands that are designated as under development pursuant to MMC 20.52.100. Figure 20.52.130 outlines the primary steps prescribed by this section in establishing requirements and determining compliance with this chapter.

Figure 20.52.130 Tree Preservation Process



B. Lots with land under development shall contain a sufficient number of significant trees to meet the minimum required tree units established by the following procedures:

1. The lot area is divided by 1,000 square feet; and
2. The quotient is multiplied by the corresponding tree density ratio applicable to the lot as set forth in Table 20.52.130(B); and

3. The resulting product is rounded up to the next whole number to establish the minimum number of required tree units.

Table 20.52.130(B) Tree Density Ratio

Zoning District	Category of Land Use	Tree Density Ratio
R-16, R-20, R-30 & SR-30	Residential	0.40
	Golf Course	0.15
	Nonresidential other than specifically listed	0.25
Public	Schools	0.15
	Parks	0.42
	Residential	0.40
	Nonresidential other than specifically listed	0.25
N-A	All	0.25
State Highway	All	0.12

C. To determine compliance with the required tree units applicable to the lot, apply the following procedures:

1. Inventory all existing significant trees on the subject lot; and
2. Assign a tree unit to each significant tree using the corresponding tree unit set forth in Table 20.52.130(C); and
3. Add the tree units together to compute the total existing tree units and subtract the tree units of those significant trees removed to determine the net existing tree units (do not round fractions); and
4. Subtract the net existing tree units from the required tree units determined in this subsection (C) to establish:
 - a. If the net existing tree units equal or exceed the required tree units then no supplemental trees are required; or
 - b. If the net existing tree units are less than the required tree units then supplemental trees are required pursuant to subsection (D) of this section.

Table 20.52.130(C) Existing Tree Unit

Tree Type	Diameter Breast Height of Existing Tree	Tree Unit
Deciduous	6 to 10 inches	0.5
	Greater than 10 inches	<u>0.75</u>
Coniferous	6 to 10 inches	0.5
	Greater than 10 inches, but less than <u>36</u> inches	<u>0.75</u>
	<u>36</u> inches and greater	<u>1.0</u>

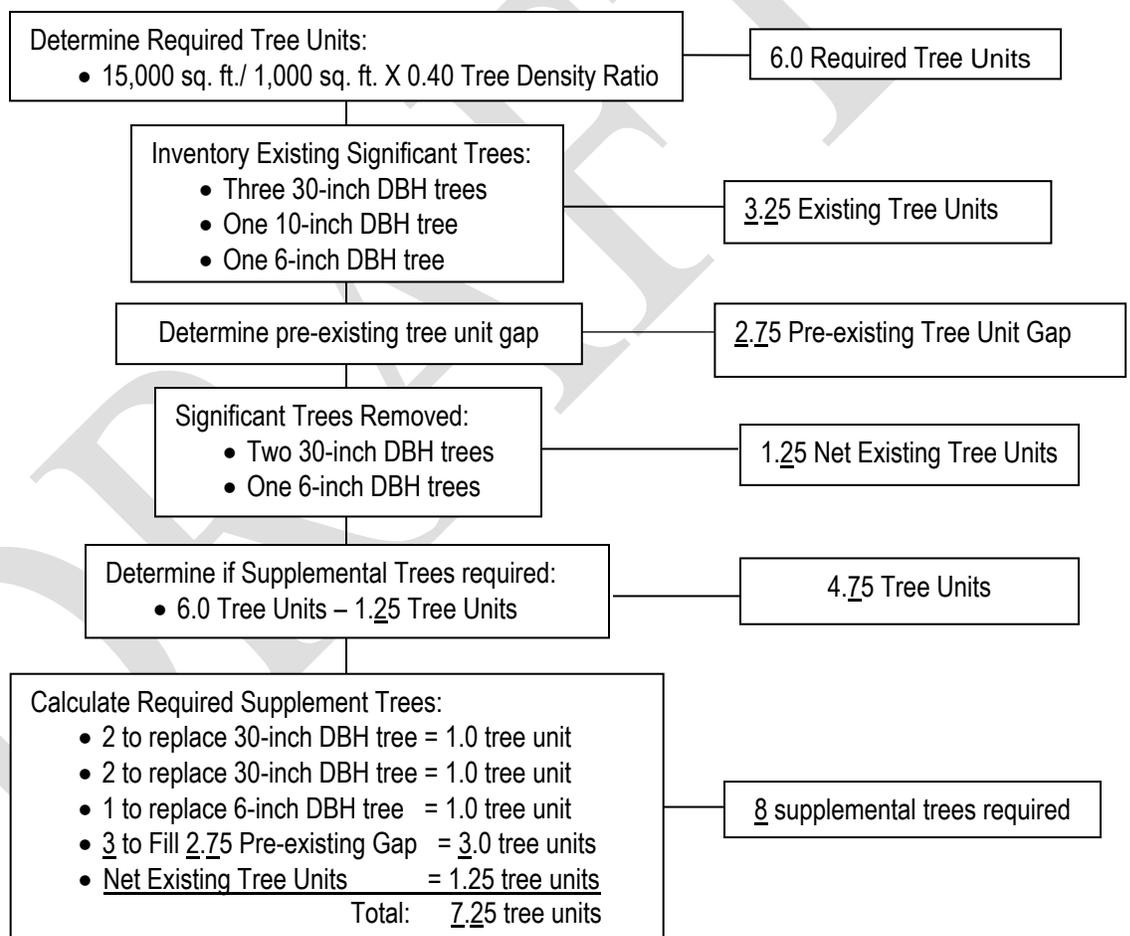
D. If supplemental trees are required, the quantity of trees is determined by applying the following procedures:

1. Determine if a pre-existing tree unit gap exists by subtracting the total existing tree units from the required tree units:
 - a. If the difference is less than zero round to zero;
 - b. A difference of zero means no pre-existing tree unit gap is present;
 - c. If the difference is greater than zero, the difference is the pre-existing tree unit gap;
2. To calculate the quantity of supplemental trees required, apply the provisions in subsection (D)(3) of this section first to those supplemental trees replacing an existing significant tree starting in order with the largest tree to the smallest tree, and then, if applicable, apply subsection (D)(3) of this section to those filling a pre-existing tree unit gap;
3. The quantity of supplemental trees is determined by:
 - a. Assigning a tree unit to each supplemental tree using Table 20.52.130(D);
 - b. Two supplemental trees shall be required for replacing each existing significant tree having a diameter breast height of 24 inches and larger subject to the limitation in subsection (D)(3)(d) of this section, and consistent with subsection (D)(2) of this section these shall be counted first;
 - c. The quantity of supplemental trees shall be of a sufficient number that their total assigned tree units added to the net existing tree units shall equal or exceed the minimum required tree units established in subsection (B) of this section; and
 - d. Supplemental trees in excess of those needed to meet the minimum required tree units shall not be required.
 - e. See Diagram 20.52.130 for an example of calculating supplemental trees.

Table 20.52.130(D) Supplemental Tree Unit

Purpose of Supplemental Tree	Diameter Breast Height of Removed Tree	Tree Unit for Supplemental Trees
Replace an existing significant tree	6 inches to less than 24 inches	1.0
	24 inches and larger	0.5
Fill a pre-existing tree unit gap	Not applicable	1.0

Diagram 20.52.130 Example Calculating Supplemental Trees

**20.52.140 Supplemental tree standards and priorities.**

A. To be eligible as a supplemental tree, the tree species must be selected from the appropriate list set forth in the “City of Medina List of Suitable Tree Species” established in MMC 20.52.050 and shall meet the following general requirements:

1. Each supplemental tree shall have a minimum caliper of two inches, or, if the tree is coniferous, it shall have a minimum height of six feet at the time of final inspection by the city;

2. Trees shall be planted in a manner of proper spacing and lighting that allows them to grow to maturity;

3. Existing trees within the boundaries of the lot having less than six inches diameter breast height may count as supplemental trees provided the tree meets all other requirements applicable to a supplemental tree;

4. Supplemental trees replacing existing significant trees shall have at least one tree be of the same plant division (coniferous or deciduous) as the significant tree it is replacing; and

5. The owner of the subject lot shall take necessary measures to ensure that supplemental trees remain healthy and viable for at least five years after inspection by the city and the owner shall be responsible for replacing any supplemental trees that do not remain healthy and viable for the five years after inspection by the city.

B. All trees used to satisfy the supplemental tree requirements of this chapter shall be included as a significant tree for the purpose of this chapter.

C. Where supplemental trees are required pursuant to MMC 20.52.130(D), the trees shall be planted in the following order of priority:

1. On-site and adjacent right-of-way. The preferred locations for on-site supplemental trees are in the following order of priority from most important to least important:

a. Adjacent to critical areas and their associated buffers as defined in MMC Chapters 20.50 and 20.67;

b. At a minimum 20% of the trees shall be within the site perimeter as follows:

i. 10% within the first 15 feet of the front property line.

ii. 10% within the first 15 feet of the rear property line.

c. Adjacent to a low impact development (LID) stormwater facility;

d. Within the immediately adjacent right-of-way.

2. Off-site. An owner may elect to plant the required trees off-site upon written request, and approval from the City. Except where contribution to the Medina tree fund is used in lieu of planting required trees, application of this section shall not result in planting trees below the minimum requirements for on-site plantings. Off-site locations include:

a. City-owned properties;

- b. Street rights-of-way not immediately adjacent to the property;
- c. Private property with the written consent of the owner of the off-site location;
- d. Other public property with the written consent of the entity with jurisdiction over the off-site location;
- e. Any other property determined appropriate by the director.

3. Fee-in-Lieu. If the director or designee determines there is insufficient area to replant on-site or within the adjacent public right-of-way, the director or designee may authorize payment of a fee-in-lieu in accordance with MMC. 20.52.330.

D. An owner may elect a combination of planting trees on site, off site and/or fee-in-lieu upon written request, and approval by the City, provided:

- 1. The combination is consistent with the provisions of this chapter; and
- 2. The combination results shall be equivalent to or greater than the minimum requirements for on-site plantings.

E. Consistent with the authority granted in MMC 20.10.040, the director may establish additional administrative rules as necessary relating to the care and maintenance of off-site trees.

F. Existing trees at the off-site location shall not be included as satisfying tree planting requirements.

G. Trees planted off-site in lieu of on-site requirements shall not be counted as existing trees on the property where the off-site tree is located.

20.52.150 Minimum restoration standards for land not under development.

A. The requirements set forth in this section apply to tree removals on lots not meeting the criteria for land under development set forth in MMC 20.52.100.

B. Removal of significant trees on a lot, including hazard and nuisance trees, is authorized only if the restoration requirements in Table 20.52.150 are satisfied, or if the property meets the requirements prescribed in subsection (K) of this section.

Table 20.52.150 Tree Restoration Standards

	Diameter Breast Height of Removed Tree	Restoration Requirements
Each Significant Tree	6 to 10 inches	Plant one tree
	Greater than 10 inches, but less than 24 inches	Plant two trees

	Diameter Breast Height of Removed Tree	Restoration Requirements
	24 inches and larger	Plant three trees
	Legacy trees	See MMC 20.52.120
	Hazard trees – 10 inches and larger	Plant one tree

C. To be eligible as a restoration tree, the tree species must be selected from the appropriate list in the “City of Medina List of Suitable Tree Species” established in MMC 20.52.050.

D. Restoration trees shall be planted within the boundaries of the lot, except as authorized pursuant to subsection (J) of this section.

E. Restoration trees shall be planted in a manner of proper spacing and lighting that allows them to grow to maturity.

F. Each restoration tree shall have a minimum caliper of two inches or, if the tree is coniferous, it shall have a minimum height of six feet at the time of final inspection by the city.

G. Existing trees on site having less than six inches diameter breast height may be included as restoration trees provided:

1. The subject tree is located within the boundaries of the lot; and
2. The subject tree meets all of the other requirements applicable to restoration trees.

H. The owner of the subject lot shall take necessary measures to make certain that restoration trees remain healthy and viable for at least five years after inspection by the city and the owner shall be responsible for replacing any restoration trees that do not remain healthy and viable for the five years after inspection by the city.

I. All trees used to satisfy the restoration requirements of this chapter shall be included as a significant tree for purposes of this chapter.

J. In lieu of the tree restoration requirements prescribed by this section, an owner may satisfy the requirements for restoration trees by meeting the requirements for off-site tree planting set forth in MMC 20.52.140.

K. The restoration requirements in Table 20.52.150 for removing significant trees shall be waived if the following criteria are satisfied:

1. The subject lot contains a sufficient number of significant trees to meet the performance standard for required trees established in MMC 20.52.130; and
2. The owner demonstrates that removal of the significant tree, including hazard and nuisance trees, will not result in a failure to meet the performance standards for required trees established in MMC 20.52.130. (Ord. 923 § 20, 2015; Ord. 909 § 2 (Att. A), 2014)

20.52.160 Lots 12,000 square feet or less.

Repealed by Ord. 923. (Ord. 909 § 2 (Att. A), 2014)

20.52.200 Hazard tree risk assessment.

A. Hazard trees are trees assessed by the city arborist as having a high to extreme risk rating using the International Society of Arborists Tree Risk Assessment Qualification (TRAQ) method in its most current form.

B. Steps in the TRAQ method in developing a tree risk rating include the following:

1. Identify possible targets and estimate occupancy rate;
2. Inspect tree and identify tree parts that could fail and strike targets (referred to as failure mode);
3. For each significant failure mode identified:
 - a. The likelihood of failure is assessed;
 - b. The likelihood of a tree part impacting a target is assessed;
 - c. The likelihood of a tree failure impacting a target is assessed;
 - d. Consequences of failure are estimated;
 - e. The risk is designated pursuant to the matrix in Table 20.52.200(C);
 - f. Possible mitigation treatments to reduce the risk are identified;
 - g. The risk is again designated pursuant to the matrix in Table 20.52.200(C) after mitigation treatment is completed.
4. When assessing the risk of a tree, the city arborist shall evaluate the tree based on existing conditions and shall exclude possible impacts caused by new development, any land alteration activity, or other similar such activities that might otherwise unnaturally cause the risk rating to increase.

C. The following table is from the International Society of Arborists TRAQ method and denotes the risk rating matrix used to assess levels of tree risk as a combination of likelihood of a tree failing and impacting a specified target, and the severity of the associated consequences should the tree or any part of the tree fail:

Table 20.52.200(C) Tree Risk Rating Matrix

Likelihood of Failure or Impact	Consequences			
	Negligible	Minor	Significant	Severe
Very Likely	Low Risk	Moderate Risk	High Risk	Extreme Risk
Likely	Low Risk	Moderate Risk	High Risk	High Risk

Likelihood of Failure or Impact	Consequences			
	Negligible	Minor	Significant	Severe
Somewhat likely	Low Risk	Low Risk	Moderate Risk	Moderate Risk
Unlikely	Low Risk	Low Risk	Low Risk	Low Risk

1. The consequences listed in Table 20.52.200(C) have meanings as follows:

a. Extreme Risk. This category applies to trees in which failure is “imminent” and there is a high likelihood of impacting a target, and the consequences of the failure are “severe.”

b. High Risk. This category applies to situations in which consequences are significant and likelihood is “very likely” or “likely,” or when consequences are “severe” and likelihood is “likely.”

c. Moderate Risk. This category applies to trees in which consequences are “minor” and likelihood is “very likely” or “likely” or when likelihood is “somewhat likely” and the consequences are “significant” or “severe.”

d. Low Risk. This category applies to trees in which consequences are “negligible” and likelihood is “unlikely”; or when consequences are “minor” and likelihood is “somewhat likely.”

2. Definitions of TRAQ method terminology that are not set forth in this chapter or Chapter 20.12 MMC can be found in the article “Qualitative Tree Risk Assessment” by E. Thomas Smiley, Nelda Matheny, and Sharon Lilly on file at Medina City Hall.

3. Potential targets are permanent structures or an area of moderate to high use. Where a target does not exist, applicants should consider routine pruning and maintenance to mitigate hazards.

D. Where a tree is found to have a high or extreme risk, the city arborist may authorize hazard pruning to mitigate the risk rather than removing the entire tree.

E. If the city arborist assesses a tree to have a high or extreme risk and mitigation of the risk through pruning or moving of potential targets is not feasible, the city arborist shall designate the tree a hazard tree. (Ord. 923 § 22, 2015)

20.52.210 Nuisance tree.

A. A nuisance tree, for purposes of this chapter, is a tree whose branches, stem and/or roots cause one or more of the following conditions to exist:

1. Substantial physical damage to public or private structures;
2. A qualified professional provides verification based on conditions on the property that substantial physical damage will occur within five years to a building containing a principal use;

3. Substantially impairs, interferes or restricts streets, sidewalks, sewers, power lines, utilities or other public improvements;
4. Substantially impairs, interferes, or obstructs any street, private lane, or driveway; or
5. The tree is diseased and restoration of the tree to a sound condition is not practical.

B. Designation of a nuisance tree is by the director following receipt of a written request and findings are made supporting a nuisance designation using the following criteria:

1. One or more of the conditions in subsection (A) of this section is present;
2. The nuisance associated with the subject tree cannot be corrected by reasonable measures including, but not limited to, pruning, cabling, bracing, or if feasible, relocating structures and other improvements; and
3. Other relevant information provided by the applicant and the city's inspection of the subject tree. (Ord. 923 § 23, 2015)

20.52.220 City arborist established.

The director shall appoint a person to the position of city arborist who shall be assigned responsibility for evaluating the hazardousness of trees and other duties consistent with the requirements of this chapter. (Ord. 923 § 24, 2015)

20.52.300 Notice of tree removal involving no construction.

A. Property owners removing a significant tree requiring a permit under MMC 20.52.310, but not undergoing new construction or land alteration activity, shall notify the city at least 10 calendar days prior to the date the tree will be removed. The director may reduce this time with receipt of a written request from the applicant and upon finding that the lesser time will provide the city reasonable notification.

B. All property owners removing a nonsignificant tree that does not require a permit are encouraged, but not required, to notify the city of the tree removal at least 48 hours prior to the tree being removed. (Ord. 923 § 25, 2015)

20.52.310 Tree activity permits.

A. This section sets forth the criteria for applying permits that implement this chapter. All uses and activities not requiring a permit must still comply with this chapter.

B. An administrative tree activity permit meeting the requirements set forth in MMC 20.70.050 is required for the following activities unless a permit is required elsewhere under this section:

1. Land designated under development as determined in MMC 20.52.100;
2. Removal at any time of a significant tree, including hazard and nuisance trees, located on private property or Washington State controlled land associated with the SR 520 highway;
3. Removal of any nonsignificant tree, including hazard and nuisance trees, located on private property or Washington State controlled land associated with the SR 520 highway that is located within 200 feet of Lake Washington pursuant to MMC 20.60.050;

4. Removal or pruning of any tree that is:

- a. Six inches or larger diameter breast height size;
- b. Located in any open or closed city right-of-way; and
- c. Designated a hazard tree pursuant to MMC 20.52.200, or involving hazard pruning authorized by the director.

C. An administrative right-of-way tree activity permit meeting the requirements set forth in MMC 20.71.050 is required for the following activities:

1. Removal of any tree, excluding hazard trees, that is:

- a. Six inches or larger diameter breast height size;
- b. Located in any open or closed city right-of-way;
- c. Application for the permit is made by the owner of property adjoining the right-of-way where the tree is located measured to the centerline of the right-of-way; and
- d. The removal does not require a nonadministrative right-of-way activity permit under subsection (D) of this section.

2. Pruning of any tree, excluding hazard pruning, that is:

- a. Six inches or larger diameter breast height size;
- b. Located in any open or closed city right-of-way;
- c. Application for the permit is made by an owner of property adjoining the right-of-way where the tree is located measured to the centerline of the right-of-way; and
- d. Excluding pruning activity that:
 - i. Follows ANSI standards in their most recent form;
 - ii. Does not endanger the life of the tree in the opinion of the director;
 - iii. Does not remove more than 25 percent of the natural canopy of the tree;
 - iv. Does not remove a limb having a diameter greater than three inches; and
 - v. Application for the pruning is made by an owner of property adjoining the right-of-way where the tree is located measured to the centerline of the right-of-way.

D. A nonadministrative right-of-way tree activity permit meeting the requirements set forth in MMC 20.72.090 is required for the following activities:

1. Removal of any tree, excluding hazard trees, which is:

- a. Six inches or larger diameter breast height size;

- b. Located in any open or closed city right-of-way; and
 - c. Application for the permit is made by an owner of property who is not adjoining the right-of-way where the tree is located measured to the centerline of the right-of-way.
2. Pruning or removal of any tree, excluding hazard trees and hazard pruning, for any purpose, which is:
- a. Six inches or larger diameter breast height size;
 - b. Located in any open or closed city right-of-way; and
 - c. Application for the permit is made by a public or private utility or their agent.
3. Removal at any time of a significant tree, excluding hazard trees, which is:
- a. Fifty inches or larger diameter breast height size;
 - b. Located in any open or closed city right-of-way; and
 - c. Application for the permit is made by an owner of property adjoining the right-of-way where the tree is located measured to the centerline of the right-of-way.

E. A nonadministrative tree activity permit meeting the requirements set forth in MMC 20.72.100 is required for the following:

1. Removal at any time of a significant tree, excluding hazard trees, which is:
 - a. Fifty inches or larger diameter breast height size;
 - b. Located on private property; and
 - c. Located outside of the footprint of a building containing the principal use of the property.
2. The director may modify the procedures for deciding a nonadministrative tree activity permit and approve the application using a Type 2 decision process provided:
 - a. The subject tree is designated a nuisance tree pursuant to MMC 20.52.210; and
 - b. During the public comment period, the city does not receive any written objection to a Type 2 decision decided by the director being used; and
 - c. The approval criteria in MMC 20.72.100 are satisfied. (Ord. 923 § 26, 2015)

20.52.320 Tree preservation plan.

A. Permits for lands under development and permits for removing city trees in city rights-of-way shall include a tree preservation plan containing the following information:

1. A survey plan prepared by a Washington State licensed surveyor that includes the following:

- a. Topography of the site at two-foot contour intervals;
 - b. Critical areas as defined in Chapters 20.50 and 20.67 MMC.
2. A site plan drawing showing the following:
- a. Proposed improvements, alterations or adjustments to the subject property including, but not limited to, buildings, driveways, walkways, patios, decks, utilities, and proposed contours;
 - b. Existing structures, whether proposed to remain or proposed for removal.
 - c. The shoreline jurisdiction as defined in RCW 90.58.030, if applicable to the property.
3. A tree-planting plan that includes:
- a. The location, genus, species, common name, and size of all significant trees located within the boundaries of the property and within any adjoining city rights-of-way and notation of which significant trees will be retained and which are proposed to be removed.
 - b. If existing trees that are less than six inches diameter breast height are to be counted as supplemental trees, the location, genus, common name, and size of such tree.
 - c. Compliance with the following objectives:
 - i. Trees shall be incorporated as a site amenity with strong emphasis on tree protection. To the extent possible, forested sites should retain their forested look, value, and function after development.
 - ii. Trees should be preserved as vegetated islands and stands rather than as individual, isolated trees scattered throughout the site.
 - iii. Trees to be preserved shall be healthy and wind-firm as identified by a qualified arborist.
 - iv. Preservation of significant trees as follows:
 1. Significant trees which form a continuous canopy.
 2. Significant trees located adjacent to critical areas and their associated buffers.
 3. Significant trees located within the first 15 feet adjacent to a property line.
 4. Significant trees which will be used as part of a low impact development (LID) storm water facility.

5. Significant trees over sixty (60) feet in height or greater than twenty-four (24) inches diameter breast height.

c. For lots larger than 20,000 square feet, excluding lots within the shoreline jurisdiction as defined by MMC 20.66.050, the tree density ratio shall be achieved as follows:

i. At least 20 percent of the required significant trees as determined by MMC 20.52.130 shall be retained equally within the site perimeter as follows:

1. 10 percent within the first 15-feet of the front property line.

2. 10 percent within the first 15-feet of the rear property line.

ii. At least 20 percent of the required significant trees as determined by MMC 20.52.130 shall be retained within the site interior.

e. Compliance with the required tree density ratio pursuant to MMC Table 20.52.130(B).

f. If applicable, a list of supplemental trees to be planted consistent with the requirements of this chapter.

g. If right-of-way trees are proposed for removal, an analysis of the tree mitigation and a list of replacement trees to be planted.

h. The list of required tree plantings shall include the size, genus, species and common names.

i. As applicable, a proposed landscaping plan that includes the required tree plantings and other vegetation being planted, as appropriate, for determining compliance with other provisions of the Medina Municipal Code (i.e., grading and drainage and shoreline master program regulations).

B. The director may authorize modifications to the tree preservation plan on a case-by-case basis that reduce submittal requirements if the director concludes such information to be unnecessary.

C. The director may require additional information to be included with the tree preservation plan, such as tree protection measures, where the director concludes the information is necessary to determine compliance with this chapter.

D. The applicant may combine the survey, site plan drawing, and/or tree preservation plan into a single document, or may combine the required information with other documents, provided the city determines the submitted information is reasonably easy to understand. All plans shall be drawn to a scale acceptable by the director.

E. Permits not involving land under development do not require a tree preservation plan. However, this shall not preclude the director from requiring such information as necessary to determine compliance with this chapter.

20.52.330 Fee-in-lieu of supplemental plantings.

A. The director or designee may authorize payment of a fee-in-lieu provided:

1. There is insufficient area on the lot or adjacent right-of-way to meet the number of replacement inches prescribed by MMC 20.52.130; or
2. Tree replacement provided within public right-of-way or a city park in the vicinity will be of greater benefit to the community.
3. Fees shall be provided in lieu of on-site tree replacement based upon the following:
 - a. The expected tree replacement cost including labor, materials, and maintenance for each replacement tree; and
 - b. The most current Council of Tree and Landscape Appraisers Guide for Plant Appraisal.
5. The applicant executes a written agreement with the City demonstrating compliance with the criteria in this section.

20.52.340 Tree protection measures during construction.

A. Tree protection measures shall be implemented and maintained before and during all construction activities to ensure the preservation of significant trees that are planned to be retained. Tree protection measures shall be shown on grading and drainage plans, tree protection plans, and construction mitigation plans.

B. Tree protection measures shall include, but are not limited to, the following:

1. Establish tree protection zones and install protective fencing at the drip line or other barriers that are at least four feet in height, except where tree protection zones are remote from areas of land disturbance, and where approved by the director, alternative forms of tree protection may be used in lieu of tree protective fencing; provided, that the critical root zones of protected trees or stands of trees are clearly delineated and protected;
2. Limit grading levels around subject trees to not raise or lower grades within the larger of the following areas:
 - a. The drip line area of the tree; or
 - b. An area around the tree equal to one foot in diameter for each inch of tree diameter measured at DBH;
3. Installation of a tree well, but only where necessary and only with pre-approval of the city;
4. Designation of areas on site for parking, material and equipment storage, construction ingress and egress, and similar designated areas that do not negatively impact significant trees;
5. Locate trenches for utilities that minimize negative effects on the tree root structure with provisions for filling the trenches with a suitable growing medium in the vicinity of the trees;

6. Employ measures to protect critical root systems from smothering and compaction;
7. Implement a tree care program during construction to include watering, fertilizing, pruning and pest control; and
8. Measures for the disposal of potentially harmful items such as excess concrete, polluted water runoff, and other toxic materials.

C. The director may approve deviations to the tree protection measures set forth in subsection (B) of this section if the director determines that the deviation will provide equal or better tree protection than the required tree protection measure. (Ord. 923 § 28, 2015)

20.52.400 City tree removals.

A. This section sets forth the requirements applicable to all trees located on city-owned property and city rights-of-way.

B. General Provisions.

1. This section is intended to be of general application for the benefit of the public at large; it is not intended for the particular benefit of any individual person or group of persons other than the general public;
2. In addition to the limits set forth in MMC 20.52.020, no city tree shall be broken, injured, mutilated, killed, destroyed, pruned or removed unless authorized by the provisions of this section; and
3. The exemptions in MMC 20.52.030 apply to this section.

C. Pruning and trimming of city trees is permitted provided ANSI standards in their most recent form are followed and the trimming and pruning comply with the requirements for tree activity permits set forth in MMC 20.52.310.

D. Removal of a city tree located within an open or closed city right-of-way may be allowed for the following:

1. Hazard trees designated pursuant to MMC 20.52.200;
2. Nuisance trees designated pursuant to MMC 20.52.210;
3. Trees not suitable under utility lines, or in the city right-of-way, as prescribed in the “City of Medina List of Suitable Tree Species”;
4. Any tree having less than a 10-inch diameter breast height size; and any trees not included on the “City of Medina Suitable Tree Species List” for the right-of-way having less than a 36-inch diameter breast height size;
5. Trees where pruning and trimming for utilities caused significant defects to the primary stem of the tree resulting in significant abnormal growth;
6. Trees where removal is necessary to allow vehicle access to a property;

7. Trees where removal is necessary to restore a view significantly obstructed by the tree provided all of the following criteria are satisfied:

- a. The owner of the adjoining property to the subject tree and the city both accept allowance to have the tree removed;
- b. The person claiming the view obstruction establishes the tree causes an unreasonable view obstruction using the provisions established in MMC 18.16.040 through 18.16.080; and
- c. The approval of a nonadministrative right-of-way activity permit is obtained pursuant to MMC 20.72.090.

E. Where subsection (D) of this section allows removal of a city tree, the following shall apply:

1. Removal of city trees, including hazard and nuisance trees, is permitted only if replacement trees are planted in accordance with the requirements in Table 20.52.400(E)(1), except as allowed otherwise by this section;

Table 20.52.400(E)(1) Replacement City Trees

	Diameter Breast Height of Removed Tree	Significant/Nonsignificant Tree Species	Tree Replacement
Each Tree (Include Nuisance Trees)	Less than 6 inches	All	None
	6 to 10 inches	All	Plant one tree
	Greater than 10 inches, but less than 24 inches	Nonsignificant	Plant one tree
		Significant	Plant two trees
	24 inches and larger	Nonsignificant	Plant two trees
		Significant	Plant three trees
Each Hazard Tree	6 to 10 inches	All	None
	Greater than 10 inches	All	Plant one tree

2. Replacement trees shall meet the following standards:

- a. To be eligible as a replacement tree, the tree species must be selected from the appropriate list in the “City of Medina List of Suitable Tree Species” established in MMC 20.52.050;
- b. Replacement trees shall be planted within the city right-of-way adjoining the subject lot;

c. Each replacement tree shall have a minimum caliper of two inches or, if the tree is coniferous, it shall have a minimum height of six feet at the time of final inspection by the city;

d. Replacement trees shall be planted in a manner of proper spacing and lighting that allows them to grow to maturity;

e. At least one replacement city tree shall be of the same plant division (coniferous or deciduous) as the city tree removed;

f. Approval to remove a city tree shall include conditions to make certain that replacement trees remain healthy and viable for at least five years after inspection by the city, including measures to replace those replacement trees that do not remain healthy and viable;

3. In addition to the requirement for replacement trees in subsections (E)(1) and (2) of this section, the public benefits lost due to the removal of the city tree shall be mitigated by paying a contribution to the Medina tree fund in accordance with the following:

a. The contribution shall be determined by multiplying the diameter breast height inches of the tree removed (significant and nonsignificant tree species) by a rate of \$25.00;

b. Where more than one city tree is removed, the contribution for each removed tree shall be added together to produce the total payment to the Medina tree fund;

c. The contribution rate for a city tree designated a hazard pursuant to MMC 20.52.200 is zero;

d. If removal of the city tree was not authorized by the city at the time of its removal, the contribution rates shall triple and be in addition to any other penalties that might apply;

e. Unless a city tree qualifies for the emergency exemption pursuant to MMC 20.52.030(B), city trees removed before a hazard or nuisance determination is made by the city shall be presumed not to be a hazard or a nuisance.

F. The following planting requirements apply within the city right-of-way when a city tree is removed:

1. The maximum number of trees in the city right-of-way shall be one tree for each 17 feet of linear public street frontage, or one tree for each 300 square feet of plantable area within the city right-of-way, whichever is greater, adjoining the subject lot;

2. The director may increase the maximum number of city trees prescribed in subsection (F)(1) of this section, provided there is sufficient space in the city right-of-way adjoining the lot to accommodate the increase in city trees;

3. If the tree replacement requirements prescribed in subsection (E) of this section would result in the total number of city trees in the right-of-way to exceed the maximum prescribed in subsection (F)(1) or (2) of this section, an applicant shall contribute \$290.00 to the

Medina tree fund for each replacement tree above the maximum in lieu of planting replacement trees above the maximum;

4. If the tree replacement requirements prescribed in subsection (E) of this section would result in the total number of city trees in the right-of-way to be below the maximum prescribed in subsection (F)(1) or (2) of this section, an applicant may plant additional trees in the right-of-way, subject to the limits in subsection (F)(1) or (2) of this section, and reduce contributions to the Medina tree fund by:

- a. Six hundred dollars for each coniferous tree planted;
- b. Five hundred dollars for each deciduous tree planted; and

5. New trees shall not be planted within three feet of the edge of any paved roadway.

G. The requirements of this section may be used to satisfy the requirements set forth in MMC 20.52.410.

H. Where a proposal includes application of this section and application of MMC 20.52.130 and/or 20.52.150, the requirements for supplemental trees and restoration trees shall be applied independent of the requirements in this section for replacement trees. (Ord. 958 § 3, 2018; Ord. 923 § 29, 2015)

20.52.410 Minimum street tree standards.

A. This section shall apply to properties adjoining the following city rights-of-way:

1. Minor arterial and collector street rights-of-way as defined in Chapter 10.08 MMC;
2. NE 8th Street;
3. 82nd Avenue NE between NE 8th Street and NE 12th Street;
4. 84th Avenue NE south of NE 12th Street; and
5. Evergreen Point Road north of 78th Place NE.

B. The following street tree standards shall apply when the lot adjoining the right-of-way is under development pursuant to MMC 20.52.100:

1. There shall be at least one city tree planted for each 300 square feet of plantable area within the city right-of-way adjoining the lot with a minimum of two trees planted; and
2. The new city trees planted shall have a minimum two-inch caliper with coniferous trees also having a minimum height of six feet at the time of final inspection; and
3. The requirements of this subsection may be satisfied with existing trees in the adjoining city right-of-way measured to the centerline; and
4. New city trees shall not be planted within three feet of the edge of any paved roadway; and

5. Trees shall be planted in an informal pattern to create a natural appearance.

C. The following exceptions shall apply:

1. Shrubs, trees and plantings within the required sight line areas at private drives, private lane outlets and street intersections shall not interfere with required sight distances;
2. The director may waive the requirements of this section if the right-of-way to be planted is planned for modification in the Medina capital improvements plan. (Ord. 923 § 30, 2015)

20.52.420 Owner responsibility within city rights-of-way.

A. All owners of property adjoining a city right-of-way shall be responsible for maintaining all trees, shrubs, and other landscaping planted in the adjoining right-of-way by the property owner or previous owner of the property, or for which responsibility has been assumed by the owner through a recorded agreement with the city.

B. All owners of the property adjoining a city right-of-way shall ensure the trees, shrubs and landscaping in the right-of-way adjoining their property do not interfere with the free passage of vehicles and pedestrians or cause any risk of danger to the public or property.

C. No hazardous or destructive tree species shall be planted in the city rights-of-way. The city shall maintain a list of suitable trees that are acceptable to be planted in city rights-of-way consistent with MMC 20.52.050.

D. The requirements of this section shall apply equally to the city rights-of-way whether the city's title to the right-of-way was obtained by dedication, condemnation, deed or in any other manner.

E. For the purpose of this chapter, an owner shall be considered adjoining up to the centerline of the city right-of-way. (Ord. 923 § 31, 2015)

20.52.500 Liability.

Consistent with MMC 20.10.070, nothing contained in this chapter shall be construed or form the basis for any liability on the part of the city, or its officers, agents, consultants or employees, for any injury or damage resulting from any person's failure to comply with the provisions of this chapter or by reason of or in consequence of any act or omission in connection with the implementation of or enforcement of this chapter. (Ord. 923 § 32, 2015)

20.52.510 Other general provisions.

A. Implementation and Costs.

1. All costs associated with trimming and removal of trees shall be the responsibility of the applicant or property owner; and
2. Any tree trimming or removal governed by this chapter shall be performed by a state of Washington licensed tree service contractor, bonded and insured for the liabilities associated with tree removal.

B. Survey. The city may require as a condition of approving a tree removal permit that the applicant obtain a survey by a state of Washington licensed surveyor to determine if the trees

described in the application are located on the subject property, or if a tree is located within a city right-of-way.

C. Supplemental Notice. The following shall supplement noticing requirements set forth in MMC 20.80.140(A) when applied to tree activity permits:

1. Notice shall be posted on or near the subject tree or trees in a manner that clearly identifies all trees being considered under the application;
2. The director may approve the use of a variety of reasonable methods to identify trees provided the methods clearly identify all trees being considered under the application; and
3. The director may require additional notices to be posted when, in the opinion of the director, it is determined necessary to provide reasonable notification to the public of a pending application.

D. Limitations on Occupancy. A certificate of occupancy shall not be issued until all required tree plantings and landscaping associated with this chapter is complete and receives final approval from the city. Temporary occupancy may be granted pursuant to MMC 20.40.100 before completion of the tree planting and landscaping work provided all of the following criteria are satisfied:

1. The property owner provides a financial guarantee to the city to ensure completion of the tree planting and landscaping;
2. The financial guarantee may take the form of a bond, line of credit, cash deposit, or another form acceptable to the city;
3. The minimum amount of the financial guarantee shall be 150 percent of the estimated cost of landscaping and required tree plantings not completed at the time of the inspection; and
4. Terms of the financial guarantee shall include, but are not limited to, conditions for approving the financial guarantee, a timeframe for the work to be completed, and terms under which the city shall release the financial guarantee.

E. View and Sunlight Obstructions Caused by Trees. Pursuant to MMC 18.16.040, unreasonable obstructions of views or sunlight by uncontrolled growth or maintenance of trees may constitute a private nuisance subject to redress as set forth in Chapter 18.16 MMC. (Ord. 923 § 33, 2015)

Tree Permit Number	Address	Total Tree Units	Total Actual Trees (not in units)	Sig. Tree Units Removed	Actual Sig. Trees Removed	Sig. Tree Units Remain	Actual Remaining Sig. Trees	Required Tree Units	Required Supplemental Tree Units	Actual Supplemental Trees Planted (not in units)	Sq. Ft.
TREE-15-023	2403 76TH AVE NE	60.5	71	20.5	26	40	45	19	None required	0	52,345
TREE-15-024	7916 NE 22ND ST	21.5	22	1.75	1	19.75	21	9	None required	0	24,487
TREE-15-026	1425 80TH AVE NE	5.75	6	1	1	4.75	5	4	None required	0	10,975
TREE-15-032	923 76TH AVE NE	141.75	145	1	1	140.75	144	82	None required	0	232,610
TREE-15-038	3242 78TH PL NE	11.5	13	4.5	5	7	8	7	None required	0	20,023
TREE-15-040	8703 NE 11TH ST	7.75	7	1	1	6.75	6	5	None required	0	12,653
TREE-15-042	3239 EVERGREEN PT RD	22	23	14	15	8	8	7	None required	0	20,000
TREE-15-043	7640 NE 12TH ST	11.25	12	0	0	11.25	12	7	None required	0	19,844
TREE-16-002	8658 NE 7TH ST	33	34	7.5	8	25.5	26	9	None required	0	24,550
TREE-16-003	3225 EVERGREEN POINT RD	0	0	0	0	0	0	8	8	8	20,350
TREE-16-006	2209 79TH AVE NE	5.25	6	2.5	3	2.75	3	3	0.5	1	8,119
TREE-16-013	2000 79TH AVE NE	35.5	38	20.5	22	15	16	14	None required	0	40,642
TREE-16-015	820 80TH AVE NE	8.5	9	2	2	6.5	7	5	None required	0	13,815
TREE-16-023	830 80TH AVE NE	15.25	16	5	5	10.25	11	5	None required	0	13,816
TREE-16-026	1456 76TH AVE NE	15.5	16	10	10	5.5	6	8	3	6	20,373
TREE-16-027	2656 78TH AVE NE	5	6	2	2	3	4	6	3	5	15,564
TREE-16-030	2637 77TH AVE NE	22.25	23	0.75	1	21.5	22	7	None required	0	16,240
TREE-16-031	2426 78TH AVE NE	4.75	5	0.75	1	4	4	3	None required	0	8,119
TREE-16-032	7650 NE 10TH ST	24.5	26	14.25	18	10.25	8	6	None required	0	16,051
TREE-16-033	3311 EVERGREEN POINT RD	33.75	35	8.25	9	25.5	26	10	None required	0	26,136
TREE-16-036	1632 77TH AVE NE	6.25	6	0	0	6.25	6	7	1	1	18,449
TREE-16-037	7841 NE 21ST ST	2.5	3	1.5	2	1	1	9	8	8	24,911
TREE-16-042	1013 84TH AVE NE	8.5	10	0	0	8.5	10	5	None required	0	12,163
TREE-16-048	1625 RAMBLING LN	22.5	23	0	0	22.5	23	18	None required	0	52,707
TREE-16-051	911 87TH AVE NE	6.75	7	2	2	4.75	5	6	1.25	3	17,030
TREE-16-053	7842 NE 21ST ST	35.5	36	17.75	18	17.75	18	9	None required	0	24,345
TREE-16-057	2750 EVERGREEN POINT RD	23	25	13.5	15	9.5	10	6	None required	0	16,963
TREE-16-061	7842 NE 14TH ST	20	21	9	9	11	12	8	None required	0	19,868
TREE-17-001	8400 NE 7TH ST	7.25	8	3	3	4.25	5	9	4.75	7	23,784
TREE-17-003	520 EVERGREEN PT RD	1.25	1	0	0	1.25	1	3	1.75	2	9,600
TREE-17-008	543 OVERLAKE DR E	23	25	1	1	22	24	5	None required	0	13,826
TREE-17-010	619 84TH AVE NE	17.75	18	8	8	9.75	10	8	None required	0	21,625
TREE-17-011	2625 82ND AVE NE	6.75	7	1	1	5.75	6	6	0.25	2	16,355
TREE-17-013	7871 NE 21ST ST	53	55	25.5	26	27.5	29	9	None required	0	25,763
TREE-17-022	3401 EVERGREEN POINT RD	27.25	29	1	1	26.25	28	10	None required	0	27,007
TREE-17-025	2209 79TH AVE NE	2.75	3	0.75	1	2	2	3	1	2	8,119
TREE-17-028	7819 NE 10TH ST	6.75	8	2.5	2	4.25	6	4	None required	0	10,650
TREE-17-033	1306 EVERGREEN POINT RD	20	21	11.75	12	8.25	9	6	None required	0	16,368
TREE-17-038	8233 OVERLAKE DR W	3.5	4	0	0	3.5	4	5	1.5	2	10,668
TREE-17-040	8700 NE 11TH ST	6.25	7	2	2	4.25	5	4	None required	0	11,288
TREE-17-041	7842 NE 10TH ST	11.25	12	6.5	7	4.75	5	6	1.25	2	16,000
TREE-17-044	2612 79TH AVE NE	10	10	2	2	8	8	6	None required	0	16,240
TREE-17-046	2610 82ND AVE NE	4	4	3	3	1	1	5	4	5	15,388
TREE-17-047	7545 NE 28TH PL	24.25	27	12.5	13	11.75	14	13	1.25	15	36,370
TREE-17-048	2841 76TH AVE NE	76	80	11.25	12	64.75	68	16	None required	0	44,789
TREE-17-051	3244 76TH AVE NE	12.25	13	6.5	7	5.75	6	7	1.25	1	21,208
TREE-17-054	8423 Midland Road	5.5	6	2.5	3	3	3	5	2	2	12,920
TREE-17-060	1201 76TH AVE NE	67	67	7	6	60	61	48	None required	0	136,900
TREE-18-002	7852 NE 14TH ST	9.5	10	5.5	6	4	4	3	None required	0	8,675
TREE-18-005	433 86TH AVE NE	5.25	6	0.75	1	4.5	5	7	2.75	5	17,680
TREE-18-013	1221 EVERGREEN POINT RD	79.5	86	48.75	51	30.75	35	23	None required	0	67,700
TREE-18-017	202 OVERLAKE DR E	19.25	20	13	14	6.25	6	9.5	3.25	4	26,400
TREE-18-019	515 OVERLAKE DR E	7.5	9	1	1	6.5	8	4	None required	0	9,900
TREE-18-022	3265 EVERGREEN PT RD	18.5	19	11	11	7.5	8	7	None required	0	20,023
TREE-18-023	3267 EVERGREEN PT RD	17	17	12	12	5	5	8.5	3.5	8	23,967
TREE-18-024	3263 EVERGREEN PT RD	19.5	21	10.5	11	9	10	12.25	3.5	8	34,342
TREE-18-031	8426 OVERLAKE DR W	11.75	15	8	10	3.75	5	9	5.25	6	25,828
TREE-18-032	7747 OVERLAKE DR W	23.75	25	13.5	14	10.25	11	22	1.75	5	62,153
TREE-18-035	1024 82ND AVE NE	4	4	1	1	3	3	2.5	None required	0	6,925
TREE-18-037	1655 73RD AVE NE	15.25	18	6	7	9.25	11	9	None required	8	21,720
TREE-18-038	111 84th AVE NE	53	57	24.75	27	28.25	30	28	None required	0	79,918
TREE-19-009	1637 77TH AVE NE	25	26	5.75	6	19.25	20	12	None required	0	32,614
TREE-19-019	607 86th Ave NE	14.25	15	8.75	9	5.5	6	6	0.5	1	17,036
TREE-19-021	2519 82nd Ave NE	9.5	10	2.75	3	6.75	7	5	None required	0	12,024
TREE-19-023	2230 Evergreen Point Rd	14.75	15	7.75	8	7	7	6	None required	0	16,238
TREE-19-024	8080 NE 24TH ST	4.75	5	2	2	2.75	3	6	3.25	5	15,952
TREE-19-026	7648 NE 12th St	25.5	26	16.5	17	9	9	7	None required	0	19,850
TREE-19-032	7838 NE 8TH ST	17	18	7.25	8	9.75	10	6	None required	0	15,971
TREE-19-034	2436 82nd Ave NE	24	24	4.25	4	19.75	20	6	None required	0	15,948
TREE-19-038	2231 78TH AVE NE	10.25	11	4.75	5	5.5	6	12	6.5	9	32,485
TREE-19-044	1848 77th Ave NE	17.25	18	10.75	11	6.5	7	9	2.5	4	25,586
TREE-19-045	226 Overlake Dr E	4.25	5	1.75	2	2.5	3	7	5.5	7	17,820
TREE-19-049	3300 78TH PL NE	21.25	22	12.75	13	8.5	9	7	None required	0	18,675
TREE-19-057	1405 Evergreen Point Rd	39.25	44	0.75	1	38.5	43	12	None required	0	34,105
TREE-19-058	8015 NE 28th St	10.5	11	5.75	6	4.75	5	4	None required	0	9,382

TREE-19-062	7823 NE 14TH ST	21.25	26	12.75	14	8.5	12	7	None required	0	19,862
TREE-19-063	2019 79TH AVE NE	42.5	43	32.75	33	9.75	10	9	None required	0	23,219
TREE-19-072	2033 77TH AVE NE	2	2	1	1	1	1	3	2	2	8,188
TREE-19-076	8297 Overlake Dr W	24.25	26	7.25	8	17	18	11	None required	0	124,636
TREE-19-080	1010 84TH AVE NE	6.75	9	3.75	5	3	4	4	1	1	8,979
TREE-19-081	442 87TH AVE NE	63	73	28.5	33	34.5	40	21	None required	0	59,480
TREE-20-002	850 80TH AVE NE	20.25	21	11	11	9.25	10	7	None required	0	17,904
TREE-20-004	8909 GROAT PT	3.75	5	0.75	1	3	4	8	5	5	23,188
TREE-20-005	444 OVERLAKE DR E	8.25	10	5	6	3.25	4	5	1.75	3	13,950
TREE-20-006	438 OVERLAKE DR E	20	22	10	12	10	10	7	None required	0	19,970
TREE-20-008	2626 78TH AVE NE	10	10	7	7	3	3	3	None required	0	8,120
TREE-20-009	2632 78TH AVE NE	7	7	2	2	5	5	3	None required	0	8,120
TREE-20-010	1407 76TH AVE NE	23.25	25	5.5	6	17.75	19	11	None required	0	30,004
TREE-20-011	2451 78TH AVE NE	6.75	7	4	4	2.75	3	3	0.25	2	8,119
TREE-20-012	619 84TH AVE NE	21.5	23	2.75	3	18.75	20	8	None required	0	21,625
TREE-20-013	7815 NE 28TH ST	11.5	14	8.5	9	3	5	3	None required	0	8,120
TREE-20-014	1645 73RD AVE NE	5.25	6	5.25	6	0	0	5	5	5	13,300
TREE-20-019	7619 NE 22ND ST	17.25	18	9.5	10	7.75	8	6	None required	0	16,303
TREE-20-042	2036 EVERGREEN POINT RD	17	18	5	5	12	13	6	None required	0	14,850
TREE-20-049	707 OVERLAKE DR E	36.75	39	21.5	23	15.25	16	7	None required	0	19,753
TREE-20-055	8024 NE 8TH ST	60.25	69	41.75	47	18.5	22	8	None required	0	22,879
TREE-20-060	1800 77TH AVE NE	26	27	10.75	11	15.25	16	11	None required	0	29,250
TREE-20-075	7811 NE 10TH ST	14.75	17	0	0	14.75	17	9	None required	0	24,127
TREE-20-080	8425 RIDGE RD	3.5	4	2.5	3	1	1	5	4	4	12,768
TREE-20-081	2621 78TH AVE NE	2	2	2	2	0	0	3	3	3	8,120
TREE-20-082	1686 77TH AVE NE	15.25	15	8	8	7.25	7	11	3.75	8	31,082
TREE-20-085	2627 78TH AVE NE	0	0	0	0	0	0	3	3	3	8,120
TREE-21-001	2226 79TH AVE NE	10	10	4.25	4	5.75	6	9	3.25	8	23,144
TREE-21-008	2604 79TH AVE NE	5.75	6	3.75	4	2	2	4	2	6	10,734
TREE-21-013	7777 OVERLAKE DR W	87.25	90	0.75	1	86.5	89	81	None required	0	230,103
TREE-21-014	550 OVERLAKE DR E	11.75	13	7	7	4.75	6	9	4.25	9	24,756
TREE-21-016	7611 NE 12TH ST	12.75	15	0.75	1	12	14	3	None required	0	8,473
TREE-21-027	2450 78TH AVE NE	1.75	2	1.75	2	0	0	3	3	4	8,119
TREE-21-032	8604 NE 6TH ST	3.5	4	1	1	2.5	3	4	1.5	2	10,239
TREE-21-053	1312 76TH AVE NE	6	6	1	1	5	5	6	1	2	16,200
Total:		2146	2290	785	839	1361	1451	1025.75	116	209	



CITY OF MEDINA
DEVELOPMENT SERVICES
425-233-6414
425-233-6400

Lists of Suitable Trees

PURPOSE: The suitable tree species listed under each section are for the purpose of establishing significant trees under the Medina Tree Code (Chapter 20.52 Medina Municipal Code). This list includes tree species eligible towards planting requirements.*

LIST 1: SIGNIFICANT TREE SPECIES ON PRIVATE PROPERTY**

The following trees are designated as significant tree species pursuant to MMC 20.52.050. List 1 is used in conjunction with the definition of “significant tree” set forth in MMC 20.12.200 to denote the application of the term “significant tree” in the Medina Tree Code (Chapter 20.52 MMC). Please note that not all trees in this list are eligible for credit as supplemental or restoration trees. See List 4 for tree species eligible for supplemental tree or restoration tree credit.

A. EVERGREENS (CONIFERS):

1. All, except the following:
 - a. Leyland Cypress – *Cupressocyparis leylandii*
 - b. Arborvitae – *Thuja occidentalis*
 - c. Italian Cypress - *Cupressus sempervirens*
 - d. Blue Surprise Port Orford Cedar – *Chamaecyparis lawsoniana* ‘Blue Surprise’
 - e. Wissel’s Saguaro False Cypress – *Chamaecyparis lawsoniana* ‘Wissels Saquaro’
 - f. Other species not listed that typically have a crown diameter of less than 10 feet at maturity
 - g. Trees planted, clipped or sheared into use as a hedge regardless of species

B. DECIDUOUS

1. All that coincide with United States Department of Agriculture hardiness zones 8b and 9a, except the following:
 - a. Swedish Aspen – *Populus tremula* ‘Erecta’
 - b. Skyward Bald Cypress – *Taxodium distichum* ‘Skyward’
 - c. Other species not listed that typically have a crown diameter of less than 10 feet at maturity
 - d. Trees planted, clipped or sheared into use as a hedge regardless of species

* *The list of native trees are those that are naturally occurring and propagating in the Puget Sound lowlands in the last 100 years and coincide with the USDA hardiness zone 8b.*

** *Private property includes state highway right-of-way.*

Note: *The USDA Plant Hardiness Zones helps determine which plants are most likely to thrive at a location. The zones are based on the average annual minimum winter temperature, divided into 10-degree F zones.*

LIST 2: SIGNIFICANT TREE SPECIES ON CITY RIGHTS-OF-WAY

This list shall apply only where a tree is removed from city rights-of-way. It is used to distinguish significant and non-significant trees. Tree species eligible for replacement credit in the city right-of-way are set forth in List 6 and 7.

A. EVERGREENS (CONIFERS) - NATIVE:

1. Lawson Cypress – *Chamaecyparis lawsoniana*
2. Alaska Yellow Cedar – *Chamaecyparis nootkatensis*
3. Western Red Cedar – *Thuja plicata*
4. Douglas Fir – *Pseudotsuga menziesii*
5. Engelmann Spruce – *Picea engelmannii*
6. Grand Fir – *Abies grandis*
7. Pacific Silver Fir – *Abies amabilis*
8. Rocky Mountain Juniper – *Juniperus scopulorum*
9. Mountain Hemlock – *Tsuga mertensiana*
10. Western Hemlock – *Tsuga heterophylla*
11. Shore Pine – *Pinus contorta* var. *contorta*
12. Sitka Spruce – *Picea sitchensis*
13. Western White Pine – *Pinus monticola*

B. EVERGREENS (CONIFERS) – NON-NATIVE:

1. None

C. DECIDUOUS - NATIVE:

1. Pacific or Western Flowering Dogwood -- *Cornus nuttallii*
2. Vine Maple -- *Acer circinatum*
3. Red Alder -- *Alnus rubra*
4. Western Hazelnut -- *Corylus cornuta*
5. Oregon Ash -- *Fraxinus latifolia*
6. Narrow-leaved Cherry – *Prunus emarginata* var. *mollis*
7. Western Serviceberry - *Amelanchier alnifolia*
8. Black Hawthorn - *Crataegus douglasii*
9. Cascara - *Rhamnus purshiana*
10. Oregon White Oak - *Quercus garryana*
11. Pacific Crabapple - *Malus fusca*
12. Pacific Willow - *Salix lasiandra*

D. DECIDUOUS – NON-NATIVE:

1. None

LIST 3: LEGACY TREE SPECIES LIST

The following trees are Legacy Tree species that if the criteria in MMC 20.52.120 are present are subject to the replacement requirements for a Legacy Tree.

A. EVERGREENS (CONIFERS):

1. Lawson Cypress – *Chamaecyparis lawsoniana*
2. Alaska Yellow Cedar – *Chamaecyparis nootkatensis*
3. Western Red Cedar – *Thuja plicata*
4. Douglas Fir – *Pseudotsuga menziesii*
5. Grand Fir – *Abies grandis*
6. Mountain Hemlock – *Tsuga mertensiana*
7. Western Hemlock – *Tsuga heterophylla*
8. Pacific Madrone – *Arbutus menziesii*
9. Shore Pine – *Pinus contorta* var. *contorta*
10. Western White Pine – *Pinus monticola*
11. Sitka Spruce – *Picea sitchensis*

B. DECIDUOUS:

1. None

LIST 4: TREE SPECIES ELIGIBLE FOR CREDIT ON PRIVATE PROPERTY

This list establishes eligibility requirements for receiving supplemental tree unit or restoration credits under MMC 20.52.130 and MMC 20.52.150 respectively. This list is used for determining existing trees that may be included as credit; and new tree plantings on private property that are eligible for credit. The list of native species in Sub-list 4A and 4C apply to determining tree retention requirements in MMC 20.52.110.

A. EVERGREENS (CONIFEROUS) - NATIVE:

1. Lawson Cypress – *Chamaecyparis lawsoniana*
2. Alaska Yellow Cedar – *Chamaecyparis nootkatensis*
3. Western Red Cedar – *Thuja plicata*
4. Douglas Fir – *Pseudotsuga menziesii*
5. Engelmann Spruce – *Picea engelmannii*
6. Grand Fir – *Abies grandis*
7. Pacific Silver Fir – *Abies amabilis*
8. Rocky Mountain Juniper – *Juniperus scopulorum*
9. Mountain Hemlock – *Tsuga mertensiana*
10. Western Hemlock – *Tsuga heterophylla*
11. Shore Pine – *Pinus contorta* var. *contorta*
12. Sitka Spruce – *Picea sitchensis*
13. Western White Pine – *Pinus monticola*

List of Suitable Trees**B. EVERGREENS (CONIFEROUS) – NON-NATIVE:**

1. Korean Fir – *Abies koreana*
2. Spanish Fir – *Abies pinsapo*
3. White Fir – *Abies concolor*
4. Incense Cedar – *Calocedrus decurrens*
5. Deodar Cedar – *Cedrus deodara*
6. Atlas Cedar – *Cedrus atlantica*
7. Cedar of Lebanon – *Cedrus libani*
8. Moss Cypress – *Chamaecyparis pisifera*
9. Dwarf Hinoki Cypress – *Chamaecyparis obtusa*
10. Smooth-barked Arizona Cypress – *Cupressus glabra*
11. Dawn Redwood – *Metasequoia glyptostroboides*
12. Swiss Stone Pine – *Pinus cembra*
13. Austrian Black Pine – *Pinus nigra*
14. Japanese Black Pine – *Pinus thunbergii*
15. Japanese Red Pine – *Pinus densiflora*
16. Japanese Cryptomeria – *Cryptomeria japonica*
17. Serbian Spruce – *Picea omorika*
18. Umbrella Pine – *Sciadopitys verticillata*
19. Bald Cypress – *Taxodium distichum*
20. Hiba Cedar – *Thujopsis dolobrata*
21. Canadian Hemlock – *Tsuga canadensis*

C. DECIDUOUS - NATIVE:

1. Pacific or Western Flowering Dogwood -- *Cornus nuttallii*
2. Vine Maple -- *Acer circinatum*
3. Red Alder -- *Alnus rubra*
4. Western Hazelnut -- *Corylus cornuta*
5. Oregon Ash -- *Fraxinus latifolia*
6. Narrow-leaved Cherry – *Prunus emarginata* var. *mollis*
7. Western Serviceberry - *Amelanchier alnifolia*
8. Black Hawthorn - *Crataegus douglasii*
9. Cascara - *Rhamnus purshiana*
10. Oregon White Oak - *Quercus garryana*
11. Pacific Crabapple - *Malus fusca*
12. Pacific Willow - *Salix lasiandra*

D. DECIDUOUS – NON-NATIVE:

1. None

LIST 5: REPLACEMENT TREE SPECIES FOR CREDIT ON CITY RIGHTS-OF-WAY

The following trees are designated as eligible for receiving replacement credit on the city right-of-way. Trees planted in the rights-of-way shall ensure that sight-distance requirements are maintained and utilities will not become encumbered. If overhead power distribution or transmission lines are within 20 horizontal feet of the planting location, the replacement tree species shall be selected from List 6.

A. EVERGREENS (CONIFERS) - NATIVE:

1. Lawson Cypress – *Chamaecyparis lawsoniana*
2. Alaska Yellow Cedar – *Chamaecyparis nootkatensis*
3. Western Red Cedar – *Thuja plicata*
4. Douglas Fir – *Pseudotsuga menziesii*
5. Engelmann Spruce – *Picea engelmannii*
6. Grand Fir – *Abies grandis*
7. Pacific Silver Fir – *Abies amabilis*
8. Rocky Mountain Juniper – *Juniperus scopulorum*
9. Mountain Hemlock – *Tsuga mertensiana*
10. Western Hemlock – *Tsuga heterophylla*
11. Shore Pine – *Pinus contorta* var. *contorta*
12. Sitka Spruce – *Picea sitchensis*
13. Western White Pine – *Pinus monticola*

B. EVERGREENS (CONIFERS) – NON-NATIVE:

1. Korean Fir – *Abies koreana*
2. Spanish Fir – *Abies pinsapo*
3. White Fir – *Abies concolor*
4. Incense Cedar – *Calocedrus decurrens*
5. Deodar Cedar – *Cedrus deodara*
6. Atlas Cedar – *Cedrus atlantica*
7. Cedar of Lebanon – *Cedrus libani*
8. Moss Cypress – *Chamaecyparis pisifera*
9. Dwarf Hinoki Cypress – *Chamaecyparis obtusa*
10. Smooth-barked Arizona Cypress – *Cupressus glabra*
11. Dawn Redwood – *Metasequoia glyptostroboides*
12. Swiss Stone Pine – *Pinus cembra*
13. Austrian Black Pine – *Pinus nigra*
14. Japanese Black Pine – *Pinus thunbergii*
15. Japanese Red Pine – *Pinus densiflora*
16. Japanese Cryptomeria – *Cryptomeria japonica*
17. Serbian Spruce – *Picea omorika*
18. Umbrella Pine – *Sciadopitys verticillata*
19. Bald Cypress – *Taxodium distichum*
20. Hiba Cedar – *Thujopsis dolabrata*
21. Canadian Hemlock – *Tsuga canadensis*

List of Suitable Trees**C. DECIDUOUS - NATIVE:**

1. Pacific or Western Flowering Dogwood -- *Cornus nuttallii*
2. Vine Maple -- *Acer circinatum*
3. Red Alder -- *Alnus rubra*
4. Western Hazelnut -- *Corylus cornuta*
5. Oregon Ash -- *Fraxinus latifolia*
6. Narrow-leaved Cherry – *Prunus emarginata* var. *mollis*
7. Western Serviceberry - *Amelanchier alnifolia*
8. Black Hawthorn - *Crataegus douglasii*
9. Cascara - *Rhamnus purshiana*
10. Oregon White Oak - *Quercus garryana*
11. Pacific Crabapple - *Malus fusca*
12. Pacific Willow - *Salix lasiandra*

D. DECIDUOUS – NON-NATIVE:

1. None

LIST 6: TREE SPECIES FOR CREDIT IN RESTRICTED CITY RIGHT-OF-WAY

The tree species in List 7 shall be used for replacement credit in those locations identified as “Restricted R.O.W” in the Medina Landscape Plan set forth in Figure 3 of the Community Design Element of the Medina Comprehensive Plan. The city may accept other tree species not on the list for replacement credit provided the tree is an appropriate species to be planted where overhead utility lines or view corridors necessitate lower tree heights.

LIST 7: LOW-GROWING TREE SPECIES SUITABLE NEAR POWER LINES

The tree species in this list may be used for replacement credit when replacement trees are planted under or within 20 horizontal feet of overhead power distribution and transmission lines. The city may accept non-native tree species in this list and other non-native tree species not on the list for replacement credit provided the tree is an appropriate species to be planted near power lines.

A. EVERGREENS:

1. Mugo Pine – *Pinus mugo*
2. Tanyosho Pine – *Pinus densiflora* ‘*Umbraculifera*’
3. Dwarf Hinoki Cypress – *Chamaecyparis obtusa* ‘*Nana gracilis*’
4. Chinese Juniper – *Juniperus chinensis*
5. Swiss Stone Pine – *Pinus cembra*
6. Japanese Umbrella Pine – *Sciadopitys verticillata*
7. Bristlecone Pine – *Pinus aristata*
8. Dwarf Japanese Red Pine – *Pinus densiflora* sp

List of Suitable Trees**B. DECIDUOUS:**

1. Vine Maple – *Acer circinatum*
2. Amur Maple – *Acer ginnala*
3. Rocky Mountain Maple – *Acer grandidentatum*
4. Paperbark Maple – *Acer griseum*
5. Japanese Maple – *Acer palmatum*
6. Pacific Serviceberry – *Amelanchier alnifolia*
7. Western Serviceberry – *Amelanchier grandiflora*
8. Japanese Hornbeam – *Carpinus japonica*
9. Eastern Redbud – *Cercis canadensis*
10. Corneliancherry Dogwood – *Cornus mas*
11. Japanese Dogwood – *Cornus officinalis*
12. European Filbert – *Corylus avellana*
13. Smoketree – *Cotinus* sp.
14. Hawthorn – *Crataegus* sp.
15. Goldenrain Tree – *Koelreuteria paniculata*
16. Galaxy Magnolia – *Magnolia* ‘Galaxy’
17. Star Magnolia – *Magnolia stellata*
18. Lily Magnolia – *Magnolia liliiflora*
19. Victoria Southern Magnolia – *Magnolia grandiflora* ‘Victoria’
20. Carmine Crabapple -- *Malus x atrosanguinea*
21. Sargent Crabapple – *Malus sargentii*
22. Pink Perfection Crabapple – *Malus* ‘Pink Perfection’
23. Radiant Crabapple – *Malus* ‘Radiant’
24. Strathmore Crabapple – *Malus* ‘Strathmore’
25. Persian Parrotia – *Parrotia persica*
26. Flowering Cherry/Plum – *Prunus* sp.
27. Amur Chokecherry – *Prunus maackii*
28. Mt. Fuji Flowering Cherry – *Prunus serrulata* ‘Shirotae’
29. Staghorn Sumac – *Rhus typhina*
30. Red Cascade Mountain Ash – *Sorbus americana* ‘Dwarf-crown’
31. Japanese Stewartia – *Stewartia pseuocamellia*
32. Japanese Snowbell – *Styrax japonicus*
33. Japanese Tree Lilac – *Syringa reticulata*

SOURCE FOR IDENTIFYING NATIVE SPECIES:

- Kruckerberg, Arthur R. *Gardening with Native Plants of the Pacific Northwest – an illustrated guide*. Seattle: University of Washington Press, 1982. Print.
- Arno, Stephen F. and Hammerly, Ramona P. *Northwest Trees – identifying and understanding the regions native trees*. Seattle: The Mountaineers, 1977. Print.
- Hitchcock, C. Leo and Cronquist, Arthur. *Flora of the Pacific Northwest – an illustrated manual*. Seattle: University of Washington Press, 1973. Print.
- Breen, Patrick. *Oregon State University Department of Horticulture Landscape Plants – Images, identification and information* (<http://oregonstate.edu/dept/ldplants/>, September 12, 2013). Corvallis, OR 97331-4501, USA.
- USDA, NRCS. 2013. *The PLANTS Database* (<http://plants.usda.gov>, 19 September 2013). National Plant Data Team, Greensboro, NC 27401-4901 USA.
- USDA Plant Hardiness Zone Map, 2012. Agricultural Research Service, U.S. Department of Agriculture. Accessed from <http://planthardiness.ars.usda.gov>.



DEVELOPMENT SERVICES

Administrative Tree Activity Permit

T-01

501 EVERGREEN POINT ROAD MEDINA, WA 98039
PHONE: 425-233-6414/6400

Complete this form for the following:

- The property is designated as under development regardless of whether a tree is removed (MMC 20.52.100)
- Removal of any significant tree on private property having a 6-inch DBH and larger size, but less than 50 inches DBH
- Removal of any non-significant tree on private property within 200 feet of the shoreline having a 6-inch DBH and larger size
- Removal of a hazard tree from a city right-of-way

<input type="checkbox"/> New Application	<i>Staff Only</i>	Date Received: 9-25-19	By: <i>[Signature]</i>	Permit No.
<input type="checkbox"/> Supplemental				Tree-19-063
Property Information				
Property Address:	2019 79 th Ave NE Medina, WA 98039			Check if tree is located:
Tax Parcel No.	2470100020			<input type="checkbox"/> Within 200 feet of shoreline
				<input type="checkbox"/> Within a critical area (Ch. 20.50/ 20.67 MMC)
Legal Property Owner Information				



DEVELOPMENT
SERVICES

Tree
Performance
Worksheet

T-01a

501 EVERGREEN POINT ROAD MEDINA, WA 98039
PHONE: 425-233-6414/6400

Instructions: Complete and attach this form to T-01 for the following:

- The property is designated as under development pursuant to MMC 20.52.100
- The applicant is using the tree performance standards in MMC 20.52.130

File No.

New
 Revision

STEP 1: Inventory existing tree units

Conduct an inventory of all significant trees within the boundaries of the lot.

No.	Tree	DBH	No.	Tree	DBH
1	see plan, page 3 of approved application pdf				
2					
3					
4					
5					
6					

STEP 2: Calculate Existing Tree Units

From Table 20.52.130(C): add together the number of significant trees in each range below and multiply by the corresponding value to produce Existing Tree Units.

A.	Total number of trees at least 6 inches, but less than 10 inches DBH	2	X 0.75 =	1.5	D. TOTAL EXISTING TREE UNITS (A + B + C)	
B.	Total number of trees 10 inches DBH and larger	41	X 1.00 =	41		42.5
C.	Total number of conifer trees 50 inches DBH and larger	0	X 1.25 =	0		

STEP 3: Inventory removed trees

List the significant trees that are proposed for removal. This information will be used in Step 4 and 7 (if applicable).

No.	Tree	DBH	No.	Tree	DBH
see plan, page 3 of approved application pdf					

STEP 4: Calculate Net Existing Tree Units

To calculate Net Existing Tree Units, add together the number of significant trees in each range below that are proposed for removal and multiply by the corresponding value. Then follow H and I.

E.	Total number of trees removed at least 6 inches, but less than 10 inches DBH	1	X 0.75 =	0.75	H. TOTAL TREE UNITS TO BE REMOVED (E + F + G)	32.75
F.	Total number of trees removed 10 inches DBH and larger	32	X 1.00 =	32		
G.	Total number of conifer trees 50 inches DBH and larger	0	X 1.25 =	0	I. Net Existing Tree Units (subtract H from D)	9.75

STEP 5: Calculate Required Tree Units

To calculate Required Tree Units, perform the calculations in J through M.

Lot Area (sq. ft.)		Divide J by 1,000		Tree Density Ratio (check one)		M. REQUIRED TREE UNITS (Multiply K x L)	(round up)
J.	23087	K.	23	L.	<input checked="" type="checkbox"/> 0.35 (residential) <input type="checkbox"/> Table 20.52.130.B		
						N.	9

STEP 6: Determine if Supplemental Trees are required

Subtract the Tree Units in M from the Tree Units in I.

- If the difference is zero or a positive number - stop. No supplemental trees are required.
- If the difference is a negative number then go to Step 7.

N.
0.75

See Page 2 for Step 7 and for additional inventory tables

Approved Medina Tree Activity Permit Plan 05/07/2020 11:43:29 AM

Tom Early Medina Tree Consultant

- EXIST CATCH BASINS**
- ① DRY STORM MANHOLE
RIM = 103.03'
I.E. = 98.71' (8" CONC. N.)
I.E. = 98.41' (8" CONC. NO. TO FAP GATE)
I.E. = 98.38' (6" CONC. SO.)
NEED TO VERIFY IF USED
 - ② STORM M. H.
RIM = 103.01'
I.E. = 99.16' (5" PVC W.)
I.E. = 99.01' (6" PVC N.E.)
I.E. = 98.91' (12" FLAP SO.)
 - ③ CATCH BASIN
RIM = 102.32'
I.E. = 101.47' (5" PVC W.)
 - ④ CATCH BASIN
RIM = 102.30'
I.E. = 101.50' (5" PVC E.)
 - ⑤ CATCH BASIN
RIM = 103.95'
I.E. = 102.95' (6" PVC W.)
 - ⑥ CATCH BASIN
RIM = 103.59'
I.E. = 102.79' (6" PVC E.)

- SPECIAL NOTES:**
1. ALL STORM DRAIN PIPING (SD) SHALL BE SMOOTH WALL MEETING CITY AND BUILDING CODE STANDARDS. ROOF DRAINS SHALL MEET MATERIAL STANDARDS FOR SDR35 FOR PVC PIPE AND N-12 FOR SMOOTH-BORE HDPE PIPE.
 2. PROVIDE TV INSPECTION OF EXISTING PRIVATE SIDE SEWER BETWEEN THE RESIDENCE AND THE PUBLIC SEWER MAIN. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MEDINA INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED.
 3. PROPOSED WATER METER SIZE HAS NOT BEEN APPROVED BY THE CITY FIRE MARSHALL. THE LOCATION AND SIZE OF THE METER AND SERVICE SHALL BE AS SPECIFIED BY THE SPRINKLER DESIGNER AND COORDINATED WITH AND APPROVED BY THE CITY DEVELOPMENT ENGINEER PRIOR TO PRECONSTRUCTION MEETING.
 4. FOOTING DRAIN ROUTING NOT SPECIFIED IN THESE PLANS. CONSTRUCTION SHALL MEET ALL RELEVANT CODES AND STRUCTURAL AND ARCHITECTURAL DETAILS AND SPECIFICATIONS. DO NOT DIRECTLY CONNECT FOOTING DRAINS TO STORM DRAIN PIPES. MAKE CONNECTIONS TO DRAINAGE STRUCTURES AS SPECIFIED ON THIS PLAN.
 5. AREA DRAINS SHALL HAVE 4 INCH MINIMUM DIAMETER GRATES.

EARTHWORK QUANTITIES
 CUT = 3,314 C.Y.
 FILL = 0 C.Y.
 QUANTITIES ARE APPROXIMATE. CONTRACTOR TO PERFORM WORK AS REQUIRED TO BRING SITE TO FINISHED GRADES AS SHOWN.



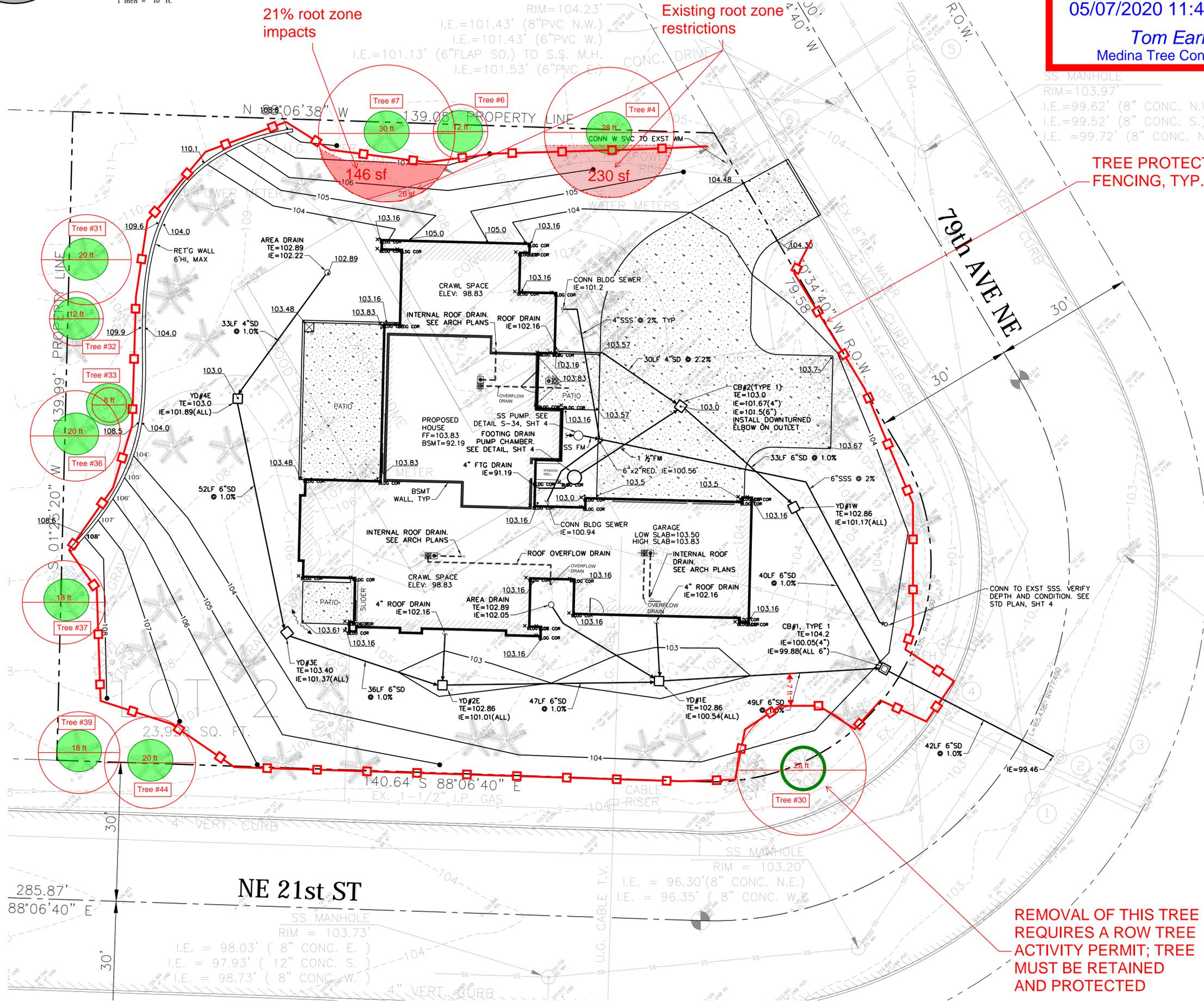
SDS
 SITE DEVELOPMENT SERVICES
 3011 RAVEN CREST
 BELLINGHAM, WA 98226
 (425) 481-9687
 DAVESDS49@GMAIL.COM

PENTAL RESIDENCE
 2019 79TH AVE NE

DATE: 9/16/19 DES: DCD
 SCALE: 1"=10' DWN: DCD/JJK

DRAINAGE & GRADING PLAN
 OWNER/APPLICANT:
 RAVINDER PENTAL
 2019 79TH AVE NE
 MERCER ISLAND, WASH. 98040

2 of 4



TREE PROTECTION FENCING, TYP.

REMOVAL OF THIS TREE REQUIRES A ROW TREE ACTIVITY PERMIT; TREE MUST BE RETAINED AND PROTECTED

Attachment F

Detailed Lot Analysis

The following are approved tree activity permits analyzed using the proposed code changes.

Example 1:

707 Overlake Drive (TREE-20-049)

This is one of the permits that Steve Wilcox discussed in his presentation. This is a property on a steep slope critical area and is a heavily wooded site.

Lot size: 19,753

Critical Area: 222 sq. ft.

Area under proposal: 19,531

Zoning: R-16

As Approved/Permitted

Total Existing Tree Units: 35.5

Total Tree Units Removed: 20.75

Net Tree Units: 14.75

Required Tree Units (.35): $6.9 = 7$

Supplemental Units Required: No

Proposed Amendments

Total Existing Tree Units: 26.25

Total Tree Units Removed: 15.5

Net Tree Units: 10.75

Required Tree Units (.4): $7.9 = 8$

Supplemental Units Required: No

Legacy Tree Removed: **Yes – Two 36-inch DBH**

Legacy Tree Supplemental Inches: $35\% \times 72 = 25.2$ (rounded up to the next whole number) = 26

Landmark Tree Removed: No

Total Supplemental Requirements = **26 inches**

Result

Although initially the requirement of supplemental tree units was not required in either case, because this project removed two 36-inch DBH trees, under the proposed code those would be classified as Legacy and would trigger the Legacy tree mitigation. The size of the lot requires mitigation of 35% of the removed DBH which would be 13-inches (12.6 rounded up to the next whole number) per tree for a total of 26 inches.

The location of both 36-inch trees were such that a different design could have easily saved them. One of them was likely cut down to create a better view and one was removed for a new walkway. As this was a fairly heavily wooded site in a critical area, it is probable that if the owner did not want to change the design, they would have opted for the fee-in-lieu as this property would realistically not support 26 replacement inches.

**707 Overlake Drive
Tree Credit Analysis**

Description	Tree Diameter	Proposed Removal	Tree Credits Per Existing Code	Tree Credits Reduced Proposal
Madrona	6	x	0.75	0.5
Douglas Fir	6		0.75	0.5
Madrona	6		0.75	0.5
Tree	6	x	0.75	0.5
Cedar	6	x	0.75	0.5
Cedar	6	x	0.75	0.5
Deciduous	8		0.75	0.5
Tree	8	x	0.75	0.5
Hemlock	8	x	0.75	0.5
Cedar	10		0.75	0.5
Cedar	10		0.75	0.5
Deciduous	10	x	0.75	0.5
Cedar	10	x	0.75	0.5
Cedar	10	x	0.75	0.5
Cedar	12		1	0.75
Cedar	12	x	1	0.75
Douglas Fir	12	x	1	0.75
Madrona	12	x	1	0.75
Douglas Fir	14		1	0.75
Douglas Fir	16	x	1	0.75
Cedar	18	x	1	0.75
Douglas Fir	22	x	1	0.75
Deciduous	22		1	0.75
Douglas Fir	24		1	0.75
Hemlock	24		1	0.75
Douglas Fir	24	x	1	0.75
Deciduous	26		1	0.75
Douglas Fir	26	x	1	0.75
Douglas Fir	28		1	0.75
Douglas Fir	30	x	1	0.75
Douglas Fir	30		1	0.75
Cedar	30		1	0.75
Douglas Fir	30	x	1	0.75
Douglas Fir	32		1	0.75
Douglas Fir	32		1	0.75
Douglas Fir	32	x	1	0.75
Douglas Fir	32	x	1	0.75
Douglas Fir	36	x	1	1
Douglas Fir	36	x	1	1

TOTAL			35.5	26.25
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Example 2:**7815 NE 28th ST (TREE-20-013)**

Lot size: 8,120 sq. ft.

Zoning: R-16

As Approved/Permitted

Total Existing Tree Units: 12
 Total Tree Units Removed: 8.25
 Net Tree Units: 3.75
 Required Tree Units (.35): $2.9 = 3$
 Supplemental Units Required: No

Proposed Amendments

Total Existing Tree Units: 8.75
 Total Tree Units Removed: 6.25
 Net Tree Units: 2.5
 Required Tree Units (.4): $3.2 = 4$
 Supplemental Units Required: **Yes – 1.5 (rounded up to the next whole number) = 2**
 Legacy Tree Removed: **Yes – One 44-inch DBH**
 Legacy Tree Supplemental Inches: $10\% \times 44 = 4.4$ (rounded up to the next whole number) = 5
 Landmark Tree Removed: No
 Total Supplemental Requirements = **2 units plus 5 inches**

Result

Under the proposed amendments, this project would be required to either plant two supplemental trees or preserve trees they were going to remove. The legacy tree mitigation would be 5-inches due to the size of the lot. The removal of the 44-inch DBH Legacy tree was done because of the installation of a new sewer line. It is possible the line could have been rerouted or the tree could have been moved to a different location on site.

**7815 NE 28th ST
 Tree Credit Analysis**

Description	Tree Diameter	Proposed Removal	Tree Credits Per Existing Code	Tree Credits Reduced Proposal
Cedar	7		0.75	0.5
Douglas Fir	7		0.75	0.5
Cedar	7.2		0.75	0.5
Cedar	8		0.75	0.5
Cedar	8.5		0.75	0.5
Plum	9	x	0.75	0.5
Apple	9.5	x	0.75	0.5

Hawthorne	10	x	0.75	0.5
Plum	12.6	x	1	0.75
Douglas Fir	18	x	1	0.75
Douglas Fir	24	x	1	0.75
Douglas Fir	26	x	1	0.75
Douglas Fir	28	x	1	0.75
Douglas Fir	44	x	1	1
TOTAL			8.25	6.25

Example 3:**2000 79th Ave NE (TREE-16-013)**

Lot size: 40,108 sq. ft.

Zoning: R-20

As Approved/Permitted

Total Existing Tree Units: 35.5

Total Tree Units Removed: 20.5

Net Tree Units: 15

Required Tree Units (.35): 14

Supplemental Units Required: No

Proposed Amendments

Total Existing Tree Units: 26.5

Total Tree Units Removed: 15.5

Net Tree Units: 11

Required Tree Units (.4): 16

Supplemental Units Required: **Yes – 5**Legacy Tree Removed: **Yes – One 36-inch DBH and one 38-inch DBH**Legacy Tree Supplemental Inches: $50\% \times 36 = 18$; $50\% \times 38 = 19$; $18 + 19 = 37$ inches

Landmark Tree Removed: No

Total Supplemental Requirements = **5 units plus 37 inches****Result**

This project removed one 36” tree and one 38” tree, both of which were located well outside of the building envelope. Due to their locations, it is staff’s opinion that these trees were removed to improve the view of the golf course. The proposed amendments would require additional trees or more likely, the owners would have reconsidered removing some of the trees that didn’t need to be removed.

Location Requirement

The size of this lot (40,108 sq. ft.) would trigger a location requirement in the proposed code which would require 20% of the trees required by the density ratio to be preserved within 15-feet of the front and rear property lines and 20% preserved within the site interior. The required tree units for this property are 16 which means that 2 units would need to be preserved along the front property

line, 2 units preserved along the rear, and 4 within the interior. The remaining 8 units could be preserved as the owners saw fit.

2000 79th AVE NE
Tree Credit Analysis

Description	Tree Diameter	Proposed Removal	Tree Credits Per Existing Code	Tree Credits Reduced
Dogwood	6	x	0.75	0.5
Dogwood	6	x	0.75	0.5
Dogwood	6	x	0.75	0.5
Dogwood	6	x	0.75	0.5
Dogwood	6		0.75	0.5
Dogwood	6		0.75	0.5
Dogwood	8	x	0.75	0.5
Dogwood	8	x	0.75	0.5
Dogwood	8		0.75	0.5
Dogwood	9		0.75	0.5
Douglas Fir	10		0.75	0.5
Cherry	12		0.75	0.5
Ash	12		0.75	0.5
Ash	14	x	0.75	0.5
Cherry	15	x	1	0.75
Douglas Fir	16	x	1	0.75
Magnolia	16		1	0.75
Douglas Fir	16		1	0.75
Birch	16		1	0.75
Maple	17		1	0.75
Cedar	18	x	1	0.75
Douglas Fir	18		1	0.75
Douglas Fir	18	x	1	0.75
Douglas Fir	20	x	1	0.75
Cherry	20	x	1	0.75
Douglas Fir	24		1	0.75
Douglas Fir	24		1	0.75
Douglas Fir	24		1	0.75
Douglas Fir	25	x	1	0.75
Douglas Fir	26	x	1	0.75
Douglas Fir	30	x	1	0.75
Douglas Fir	30	x	1	0.75
Douglas Fir	30	x	1	0.75
Douglas Fir	30	x	1	0.75
Douglas Fir	32		1	0.75
Douglas Fir	32	x	1	0.75
Douglas Fir	35	x	1	0.75
Hemlock	36	x	1	0.75
Cedar	38	x	1	1

TOTAL			35.5	26.25
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Example 4:**1306 Evergreen Point Road (TREE-17-033)**

Lot size: 16,364 sq. ft.

Zoning: R-16

As Approved/Permitted

Total Existing Tree Units: 22.75

Total Tree Units Removed: 14.5

Net Tree Units: 8.25

Required Tree Units (.35): 5.7=6

Supplemental Units Required: No

Proposed Amendments

Total Existing Tree Units: 16.75

Total Tree Units Removed: 10.75 (no trees 36" or larger)

Net Tree Units: 6

Required Tree Units (.4): 6.5=7

Supplemental Units Required: **Yes – 1**

Legacy Tree Removed: No

Legacy Tree Supplemental Inches: N/A

Landmark Tree Removed: No

Total Supplemental Requirements = **1 unit****Result**

This project did not remove any legacy trees however would be required to plant one supplemental tree unit (2 actual trees).

Result of legacy tree removal

This project did not have any legacy trees.

1306 Evergreen Point Road**Tree Credit Analysis**

Description	Tree Diameter	Proposed Removal	Tree Credits Per Existing Code	Tree Credits Reduced
Dogwood	6		0.75	0.5
Dogwood	6		0.75	0.5
Dogwood	6		0.75	0.5
Dogwood	6	x	0.75	0.5
Dogwood	6	x	0.75	0.5
Dogwood	6		1	0.75
Dogwood	8	x	1	0.75
Dogwood	8	x	1	0.75

Dogwood		x	1	0.75
Dogwood	9	x	1	0.75
Douglas Fir	10		1	0.75
Cherry	12	x	1	0.75
Ash	12	x	1	0.75
Ash	14		1	0.75
Cherry	15	x	1	0.75
Douglas Fir	16	x	1	0.75
Magnolia	16	x	1	0.75
Douglas Fir	16		1	0.75
Birch	16	x	1	0.75
Maple	17	x	1	0.75
Cedar	18	x	1	0.75
Douglas Fir	18		1	0.75
Douglas Fir	18		1	0.75
Douglas Fir	20	x	1	0.75
TOTAL			22.75	16.75

Example 5:**1221 Evergreen Point Road (TREE-18-013)**

Lot size: 65,556 sq. ft.

Zoning: R-30

As Approved/Permitted

Total Existing Tree Units: 79.5
Total Tree Units Removed: 29.75
Net Tree Units: 49.75
Required Tree Units (.35): 22.9=23
Supplemental Units Required: No

Proposed Amendments

Total Existing Tree Units: 59.25
Total Tree Units Removed: 22 (no trees 36" or larger being removed)
Net Tree Units: 37.25
Required Tree Units (.4): 26.222=27
Supplemental Units Required: No
Legacy Tree Removed: No
Legacy Tree Supplemental Inches: N/A
Landmark Tree Removed: No
Total Supplemental Requirements = N/A

Result

Due to the size of the lot and the number of existing trees, this lot was not required to plant supplemental trees, nor would it be required to under the proposed code. This property did not remove any Legacy trees.

Location Requirement

This lot is located in the shoreline jurisdiction therefore the location requirement is not applicable.

1221 Evergreen Point Road**Tree Credit Analysis**

Description	Tree Diameter	Proposed Removal	Tree Credits Per Existing Code	Tree Credits Reduced
Cedar	6		0.75	0.5
Hazelnut	6	x	0.75	0.5
Cedar	6		0.75	0.5
Cedar	6		0.75	0.5
Cedar	6		0.75	0.5
Cedar	6		0.75	0.5
Cedar	6		0.75	0.5
Cedar	6		0.75	0.5
Cedar	6		0.75	0.5
Cedar	6.5	x	0.75	0.5
Cedar	8		0.75	0.5
Cedar	8		0.75	0.5
Apple	8	x	0.75	0.5
Cedar	8	x	0.75	0.5
Cedar	8		0.75	0.5
Hazelnut	8		0.75	0.5
Hazelnut	8		0.75	0.5
Ash	8		0.75	0.5
Maple	8		0.75	0.5
Cedar	9	x	0.75	0.5
Cedar	9		0.75	0.5
Cedar	9		0.75	0.5
Cedar	9		0.75	0.5
Cedar	9		0.75	0.5
Cedar	9		0.75	0.5
Cedar	9		0.75	0.5
Cedar	10		1	0.75
Cedar	10		1	0.75
Cedar	10		1	0.75
Douglas Fir	10		1	0.75
Douglas Fir	10		1	0.75
Douglas Fir	10		1	0.75
Douglas Fir	10	x	1	0.75
Cedar	10		1	0.75
Hawthorn	10	x	1	0.75
Douglas Fir	10	x	1	0.75
Douglas Fir	10	x	1	0.75
Cherry	10		1	0.75

Ash	10		1	0.75
Dogwood	10		1	0.75
Maple	10		1	0.75
Douglas Fir	11		1	0.75
Hemlock	11	x	1	0.75
Cedar	11		1	0.75
Douglas Fir	12		1	0.75
Cedar	12		1	0.75
Cedar	12		1	0.75
Cedar	12		1	0.75
Dogwood	12	x	1	0.75
Dogwood	12	x	1	0.75
Plum	12	x	1	0.75
Douglas Fir	12	x	1	0.75
Madrone	12		1	0.75
Madrone	12		1	0.75
Hawthorn	12		1	0.75
Cedar	13		1	0.75
Yew	13	x	1	0.75
Douglas Fir	15		1	0.75
Douglas Fir	15		1	0.75
Apple	15	x	1	0.75
Cedar	16	x	1	0.75
Cedar	16		1	0.75
Douglas Fir	16		1	0.75
Apple	16	x	1	0.75
Apple	16	x	1	0.75
Douglas Fir	16		1	0.75
Cedar	17	x	1	0.75
Douglas Fir	18		1	0.75
Cherry	18	x	1	0.75
Cedar	20		1	0.75
Cottonwood	20	x	1	0.75
Cedrus	22	x	1	0.75
Cypress	22	x	1	0.75
Douglas Fir	23		1	0.75
Cedar	23	x	1	0.75
Cedar	23	x	1	0.75
Cedar	26	x	1	0.75
Cedar	27	x	1	0.75
Cedar	27	x	1	0.75
Cedar	35	x	1	0.75
Cedar	35	x	1	0.75
Douglas Fir	36		1	1
Maple	36		1	1
Cottonwood	36		1	1

Cottonwood	36		1	1
Cottonwood	38		1	1
TOTAL			79.5	59.25

Example 6:**2626 78th Avenue NE (TREE-20-008)**

Lot size: 8,120 sq. ft.

Zoning: R-16

As Approved/Permitted

Total Existing Tree Units: 10

Total Tree Units Removed: 7

Net Tree Units: 3

Required Tree Units (.35): 3

Supplemental Units Required: No

Proposed Amendments

Total Existing Tree Units: 8

Total Tree Units Removed: 5.75

Net Tree Units: 2.25

Required Tree Units (.4): 3.2=4

Supplemental Units Required: **Yes – 2**Legacy Tree Removed: **Yes – One 38-inch DBH and one 39-inch DBH**

Legacy Tree Supplemental Inches: 10% x 38 = 3.8 (rounded up to next whole number) = 4; 10% x 39 = 3.9 (rounded up to next whole number) = 4; 4 + 4 = 8 inches

Landmark Tree Removed: No

Total Supplemental Requirements = **5 units plus 8 inches****Result**

This project would have been required to plant two supplemental trees under the proposed amendments. Two Legacy trees were removed: one 38-inch tree and one 39-inch tree. The 39-inch tree was located in the front of the property and the 38-inch was located in the rear building envelope. It's possible that the 39-inch tree would have been saved but the 38-inch tree could have only been saved with a redesign of the house and possibly some sort of variance for setbacks.

2626 78th AVE NE
Tree Credit Analysis

Description	Tree Diameter	Proposed Removal	Tree Credits Per Existing Code	Tree Credits Reduced
Cedar	10		1	0.75
Douglas Fir	15		1	0.75
Douglas Fir	16	x	1	0.75
Douglas Fir	17		1	0.75

Douglas Fir	17	x	1	0.75
Douglas Fir	26	x	1	0.75
Douglas Fir	29	x	1	0.75
Douglas Fir	33	x	1	0.75
Douglas Fir	38	x	1	1
Douglas Fir	39	x	1	1
TOTAL			10	8



DEVELOPMENT
SERVICES

Administrative Tree Activity Permit

Example 1
Attachment F

T-01

501 EVERGREEN POINT ROAD MEDINA, WA 98039
PHONE: 425-233-6414/6400

Complete this form for the following:

- The property is designated as under development regardless of whether a tree is removed (MMC 20.52.100)
- Removal of any significant tree on private property having a 6-inch DBH and larger size, but less than 50 inches DBH
- Removal of any non-significant tree on private property within 200 feet of the shoreline having a 6-inch DBH and larger size
- Removal of a hazard tree from a city right-of-way

<input checked="" type="checkbox"/> New Application	<i>Staff Only</i>	Date Received:	By:	Permit No. TREE20-049
<input type="checkbox"/> Supplemental	Property Information			
Property Address: 707 Overlake Dr East Medina WA 98039			Check if tree is located:	
Tax Parcel No. 3835501951			<input type="checkbox"/> Within 200 feet of shoreline <input type="checkbox"/> Within a critical area (Ch. 20.50/ 20.67 MMC)	
Legal Property Owner Information				

City Use Only		
Application Fee:	<input type="checkbox"/> Check if issued same day as submittal	Planning Approval: / /
Tech Fee:		Tree Approval: / /
Advanced Deposit:		Final Inspection: / /



501 EVERGREEN POINT ROAD MEDINA, WA 98039
PHONE: 425-233-6414/6400

Instructions: Complete and attach this form to T-01 for the following: <ul style="list-style-type: none"> The property is designated as under development pursuant to MMC 20.52.100 The applicant is using the tree performance standards in MMC 20.52.130 	File No.
	<input checked="" type="checkbox"/> New <input type="checkbox"/> Revision

STEP 1:	Inventory existing tree units	Conduct an inventory of all significant trees within the boundaries of the lot.
----------------	--------------------------------------	---

No.	Tree	DBH	No.	Tree	DBH
1	See attached tree list		7		
2			8		
3			9		
4			10		
5			11		
6			12		

STEP 2:	Calculate Existing Tree Units	From Table 20.52.130(C): add together the number of significant trees in each range below and multiply by the corresponding value to produce Existing Tree Units.
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A.	Total number of trees at least 6 inches, but less than 10 inches DBH	9	X 0.75 =	6.75	D. TOTAL EXISTING TREE UNITS (A + B + C) 36.75
B.	Total number of trees 10 inches DBH and larger	2930	X 1.00 =	30	
C.	Total number of conifer trees 50 inches DBH and larger	0	X 1.25 =	0	

STEP 3:	Inventory removed trees	List the significant trees that are proposed for removal. This information will be used in Step 4 and 7 (if applicable).
----------------	--------------------------------	--

No.	Tree	DBH	No.	Tree	DBH
	See attached tree list				

STEP 4:	Calculate Net Existing Tree Units	To calculate Net Existing Tree Units, add together the number of significant trees in each range below that are proposed for removal and multiply by the corresponding value. Then follow H and I.
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E.	Total number of trees removed at least 6 inches, but less than 10 inches DBH	6	X 0.75 =	4.5	H. TOTAL TREE UNITS TO BE REMOVED (E + F + G)	21.5
F.	Total number of trees removed 10 inches DBH and larger	17	X 1.00 =	17		
G.	Total number of conifer trees 50 inches DBH and larger	0	X 1.25 =	0	I. Net Existing Tree Units (subtract H from D)	15.25

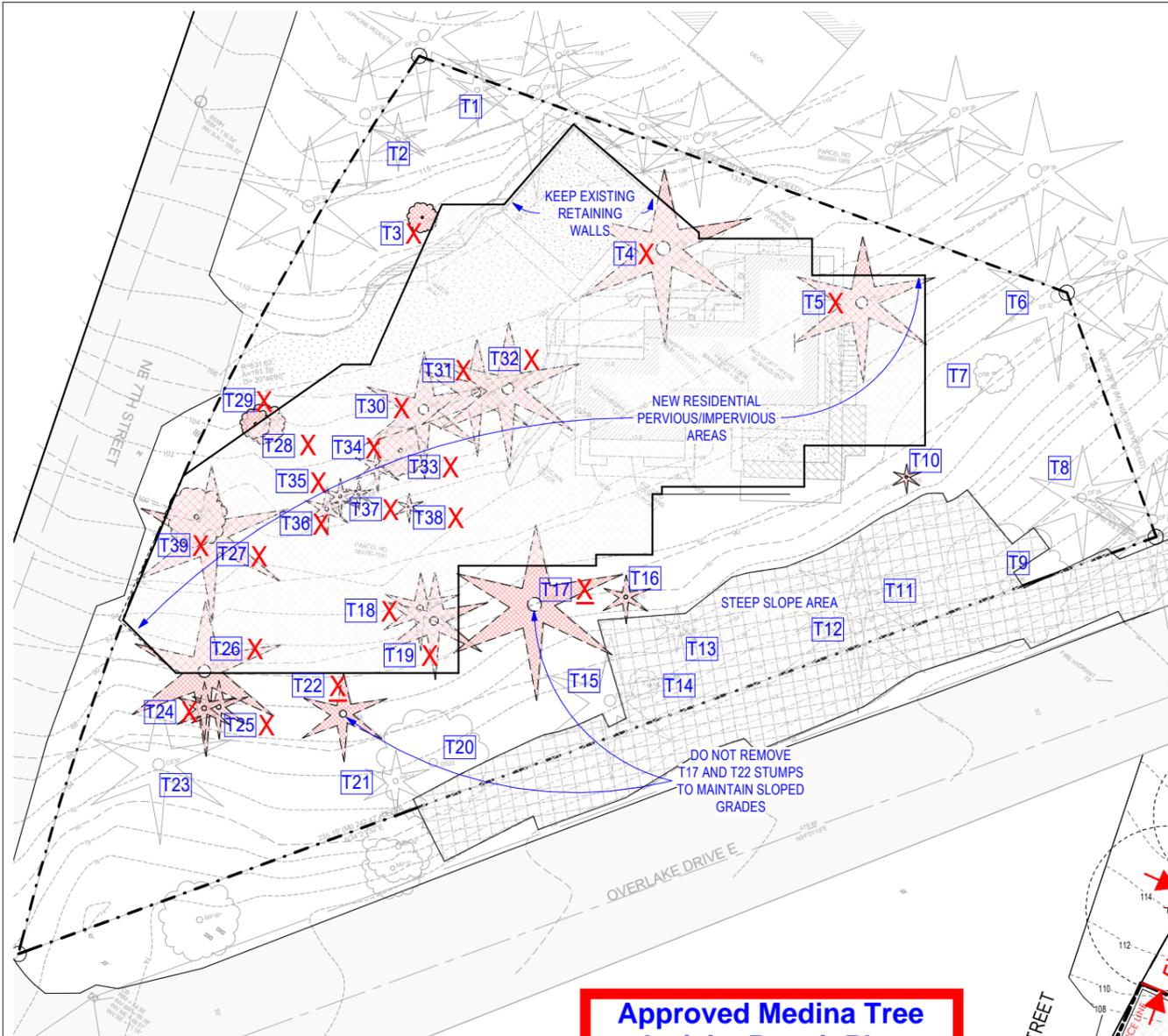
STEP 5:	Calculate Required Tree Units	To calculate Required Tree Units, perform the calculations in J through M.
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Lot Area (sq. ft.)		Divide J by 1,000		Tree Density Ratio (check one)		M. REQUIRED TREE UNITS (Multiply K x L)	7 (round up)
J.	19,753	K.	19.7	L.	<input checked="" type="checkbox"/> 0.35 (residential) <input type="checkbox"/> ___ Table 20.52.130.B		

STEP 6:	Determine if Supplemental Trees are required	Subtract the Tree Units in M from the Tree Units in I. <ul style="list-style-type: none"> If the difference is zero or a positive number - stop. No supplemental trees are required. If the difference is a negative number then go to Step 7. 	N. 8.25
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See Page 2 for Step 7 and for additional inventory tables

Example 1
Attachment F



Tree Tag #	Site Survey ID	Description	Tree Dia. (10'-49")	Tree Dia. (6'-9")	Proposed Cut
T1	DF14	Douglas Fir	14		
T2	CE12	Cedar	12		
T3	MA6	Madrona		6	X
T4	DF36	Douglas Fir	36		X
T5	DF30	Douglas Fir	30		X
T6	DF32	Douglas Fir	32		X
T7	D58	Deciduous		8	
T8	DF24	Douglas Fir	24		
T9	D526	Deciduous	26		
T10	D46	Douglas Fir		6	
T11	DF28	Douglas Fir	28		
T12	DF32	Douglas Fir	32		
T13	CE10	Cedar	10		
T14	MA6	Madrona		6	
T15	DF30	Douglas Fir	30		
T16	CE10	Cedar	10		
T17	DF36	Douglas Fir	36		X
T18	DF16	Douglas Fir	16		X
T19	DF22	Douglas Fir	22		X
T20	D522	Deciduous	22		
T21	HE14	Hemlock	24		
T22	CE18	Cedar	18		X
T23	CE30	Cedar	30		X
T24	CE12	Cedar	12		X
T25	DF12	Douglas Fir	12		X
T26	DF32	Douglas Fir	32		X
T27	DF32	Douglas Fir	32		X
T28	CH6	Tree		6	X
T29	CH8	Tree		8	X
T30	DF26	Douglas Fir	26		X
T31	DF24	Douglas Fir	24		X
T32	DF30	Douglas Fir	30		X
T33	D510	Deciduous	10		X
T34	CE10	Cedar	10		X
T35	HE8	Hemlock		8	X
T36	CE10	Cedar	10		X
T37	CE6	Cedar		6	X
T38	CE6	Cedar		6	X
T39	MA12	Madrona	12		X

Inventory - Existing Trees	Multiplier	Tree Units
6'-8"	0.75	6.75
10'-50"	1	30
Total:		36.75

Proposed Removal	Multiplier	Tree Units
6'-8"	0.75	4.5
10'-50"	1	17
Total:		21.5

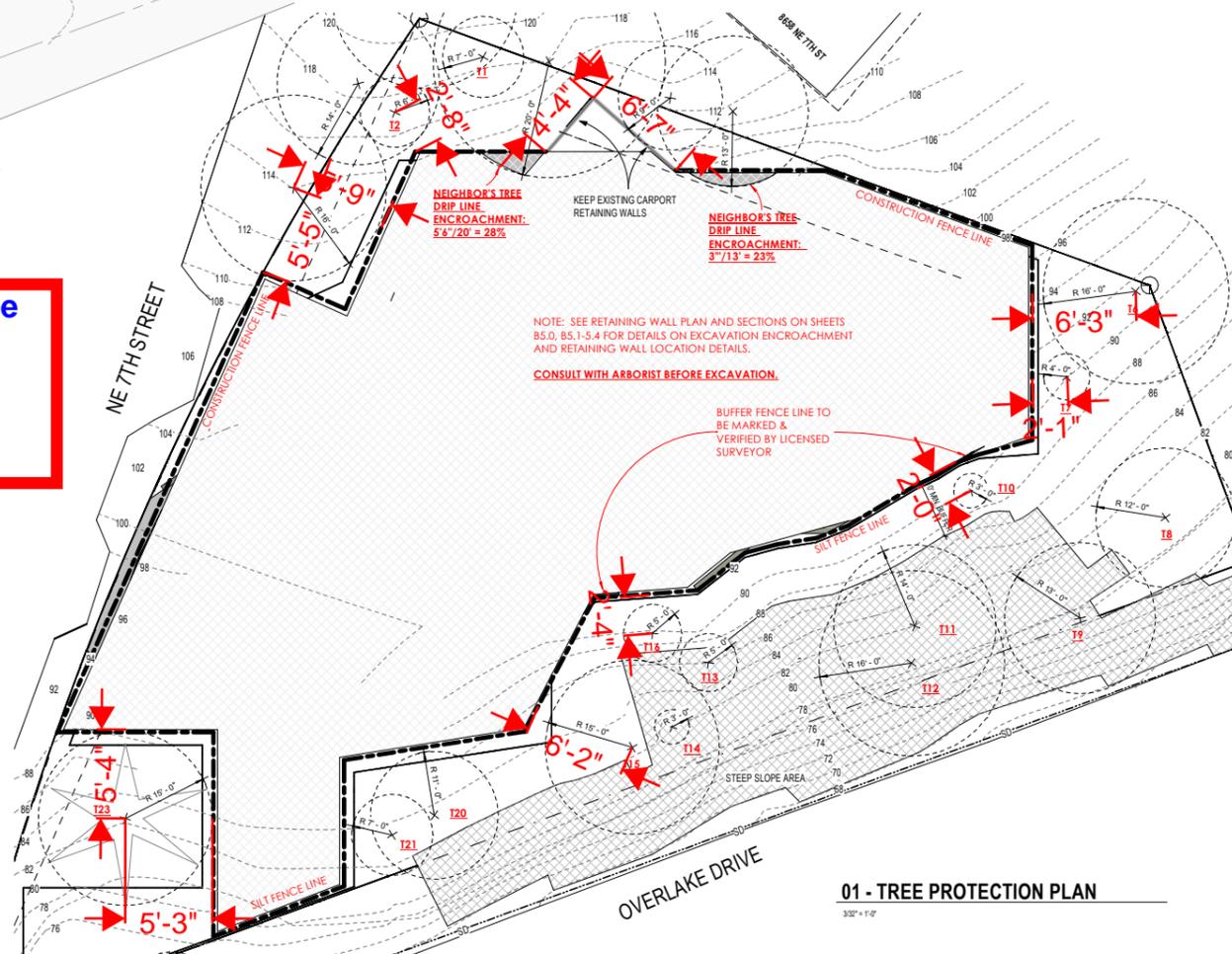
Total Existing Tree Units	36.75
Total Tree Units to be Removed	21.5
Net Tree Units	15.25
Required Tree Units (19,753 s.f./1000 * .35)	6.9125
Supplemental Units Required	-8.3375

CruzAD
CRUZ ARCHITECTURE+DESIGN
P: 971.888.4777
MARK@CRUZAD.COM

20105468 REGISTERED ARCHITECT
MARK CRUZ
STATE OF WASHINGTON

PHAM RESIDENCE
707 OVERLAKE DRIVE EAST
MEDINA, WA, 98039

Approved Medina Tree Activity Permit Plan
12/18/2020
Tom Early
Medina Tree Consultant



01 - EXISTING SITE - TREES ID

- TREE PROTECTION MEASURES**
- THE FOLLOWING GUIDELINES ARE REQUIRED TO ENSURE THAT THE DESIGNATED SPACE SET ASIDE FOR THE PRESERVED TREES, AND THESE TREES ARE PROTECTED AND CONSTRUCTION IMPACTS ARE KEPT TO A MINIMUM. COMPLY TO STANDARDS SET FORTH UNDER BMP T101.
- ALL RETAINED TREES WILL HAVE A "TREE PROTECTION ZONE" OR TPZ OF 1 FOOT PER DIAMETER INCH AROUND THE DRILINE OF THE REMAINING TRESS.
 - TREE PROTECTION FENCING SHALL BE ERECTED PER THE PLAN ON THIS SHEET PRIOR TO MOVING ANY HEAVY EQUIPMENT ON SITE. DOING THIS WILL SET CLEARING LIMITS AND AVOID COMPACTION OF SOILS WITHIN ROOT ZONES OF RETAINED TREES.
 - EXCAVATION LIMITS SHOULD BE LAID OUT IN PAINT ON THE GROUND TO AVOID OVER EXCAVATING.
 - EXCAVATIONS WITHIN THE DRIP LINES OF RETAINED TREES SHALL BE MONITORED BY A QUALIFIED TREE PROFESSIONAL SO NECESSARY PRECAUTIONS CAN BE TAKEN TO DECREASE IMPACTS TO TREE PARTS. A QUALIFIED TREE PROFESSIONAL SHALL MONITOR EXCAVATIONS WHEN WORK IS AUTHORIZED IN THE CRITICAL ROOT ZONE.
 - TO ESTABLISH SUB GRADE FOR FOUNDATION, CURBS AND PAVEMENT SECTIONS NEAR THE TREES, SOIL SHOULD BE REMOVED AWAY FROM THE ROOT SYSTEM AND NOT AT 90 DEGREE ANGLES TO AVOID BREAKING AND TEARING ROOTS THAT LEAD BACK TO THE TRUNK. ANY ROOTS DAMAGED DURING THESE EXCAVATIONS SHOULD BE EXPOSED TO SOUND TISSUE AND CUT CLEANLY WITH A SAW. CUTTING TOOLS SHOULD BE STERILIZED WITH ALCOHOL.
 - AREAS EXCAVATED WITHIN THE DRIP LINE OF RETAINED TREES SHOULD BE THOROUGHLY IRRIGATED WEEKLY DURING DRY PERIODS.
 - PREPARATIONS FOR FINAL LANDSCAPING SHALL BE ACCOMPLISHED BY HAND WITHIN THE DRIP LINES OF RETAINED TREES. LARGE EQUIPMENT SHALL BE KEPT OUTSIDE OF THE TREE PROTECTED ZONES.
 - REMOVE IVY GROUND COVERS PRIOR TO CONSTRUCTION PROJECT COMPLETION.
 - COVER EXPOSED GROUND WITH WOOD CHIPS TO RETAIN GROUND MOISTURE.
 - RE-PLANT REMOVED HEALTHY TREES AS FEASIBLE

No.	Description	Date

Sheet Title:
TREE MANAGEMENT PLAN

Project Number: A110
Date: 07/07/2020
Drawn By: Author
Checked By: Checker

B3.0

Scale: 3/32" = 1'-0"

01 - TREE PROTECTION PLAN

10/20/2020 3:18:04 PM



CITY OF MEDINA
DEVELOPMENT SERVICES
425-233-6414
425-233-6400

Administrative Tree Activity Permit

Example 2
Attachment F
T-01

Instructions: Complete this form for the following:

- The property is designated as under development (MMC 20.52.100)
- Removal of any significant tree on private property having a 6-inch DBH and larger size that is not a legacy tree
- Removal of any non-significant tree on private property within 200 feet of the shoreline having a 6-inch DBH and larger size that is not a legacy tree
- Removal of a hazard tree from the city right-of-way

<input type="checkbox"/> New Application	<i>Staff Only</i>	Date Received:	By:	Permit No.
<input checked="" type="checkbox"/> Supplemental				Tree 20-013
Property Information				
Property Address: 7815 NE 28th St Medina				Check if tree is:
Tax Parcel No. 3262300903				<input type="checkbox"/> Within 200 feet of shoreline
				<input type="checkbox"/> Within a critical area (MMC 20.50)

Spot 2019 LLC

Dmitriy@Americanclassichomes.com

9675 SE 36th ST #105

Mercer Island

WA 98040 206-588-1147 x114

Dmitriy Mayzlin

Dmitriy@Americanclassichomes.com

9675 SE 36th ST #105

Mercer Island

WA 98040

206-588-1147 x114

Same

Same

Dmitriy Mayzlin

8/28/20

Tech Fee:	Date paid:	Tree Consultant Review: <i>Tom Early</i> 9/16/2020
Advanced Deposit:	<input type="checkbox"/> Check if issued same day as submittal	Final Inspection: / /

Rev. 07.31.2015



Instructions: Complete and attach this form to T-01 for the following:

- The property is designated as under development pursuant to MMC 20.52.100
- The applicant is using the tree performance standards in MMC 20.52.130

File No. **New**
 Revision

STEP 1: Inventory existing tree units Conduct an inventory of all significant trees within the boundaries of the lot.

No.	Tree	DBH	No.	Tree	DBH
1	Douglas-fir	18	7	Apple	9.5
2	Douglas-fir	44	8	Douglas-fir	7
3	Western redcedar	7	9	plum (8+9+4)	12.6
4	Western redcedar (6+4)	7.2	10	Plum	9
5	western redcedar	8	11	douglas-fir	28
6	western redcedar	8.5	12	douglas-fir	26

STEP 2: Calculate Existing Tree Units From Table 20.52.130(C): add together the number of significant trees in each range below and multiply by the corresponding value to produce Existing Tree Units.

A.	Total number of trees at least 6 inches, but less than 10 inches DBH	7	X 0.75 =	5.25	D. TOTAL EXISTING TREE UNITS (A + B + C) 12.25
B.	Total number of trees 10 inches DBH and larger	7	X 1.00 =	7	
C.	Total number of conifer trees 50 inches DBH and larger	0	X 1.25 =	0	

STEP 3: Inventory removed trees List the significant trees that are proposed for removal. This information will be used in Step 4 and 7 (if applicable).

No.	Tree	DBH	No.	Tree	DBH
1	douglas fir	18	11	douglas fir	28
2	douglas fir	44	12	douglas fir	26
9	plum	12.6	13	douglas fir	24
10	plum	9	14	hawthorne	10

STEP 4: Calculate Net Existing Tree Units To calculate Net Existing Tree Units, add together the number of significant trees in each range below that are proposed for removal and multiply by the corresponding value. Then follow H and I.

E.	Total number of trees removed at least 6 inches, but less than 10 inches DBH	3	X 0.75 =	2.25	H. TOTAL TREE UNITS TO BE REMOVED (E + F + G) 9.25
F.	Total number of trees removed 10 inches DBH and larger	7	X 1.00 =	7	
G.	Total number of conifer trees 50 inches DBH and larger	0	X 1.25 =	0	I. Net Existing Tree Units (subtract H from D) 3

STEP 5: Calculate Required Tree Units To calculate Required Tree Units, perform the calculations in J through M.

Lot Area (sq. ft.)		Divide J by 1,000	Tree Density Ratio (check one)		M. REQUIRED TREE UNITS (Multiply K x L) 3 (round up)
J.	8120	K. 8.210	L.	<input checked="" type="checkbox"/> 0.35 (residential) <input type="checkbox"/> ___ Table 20.52.130.B	

STEP 6: Determine if Supplemental Trees are required Subtract the Tree Units in M from the Tree Units in I.

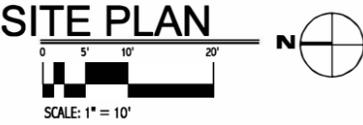
- If the difference is zero or a positive number - stop. No supplemental trees are required.
- If the difference is a negative number then go to Step 7.

N. 0

See Page 2 for Step 7 and for additional inventory tables

Example 2
Attachment F

**Approved Medina Tree
Activity Permit Plan**
09/16/2020
Tom Early
Medina Tree Consultant



7815 NE 28TH MEDINA
SITE PLAN

TREE SCHEDULE

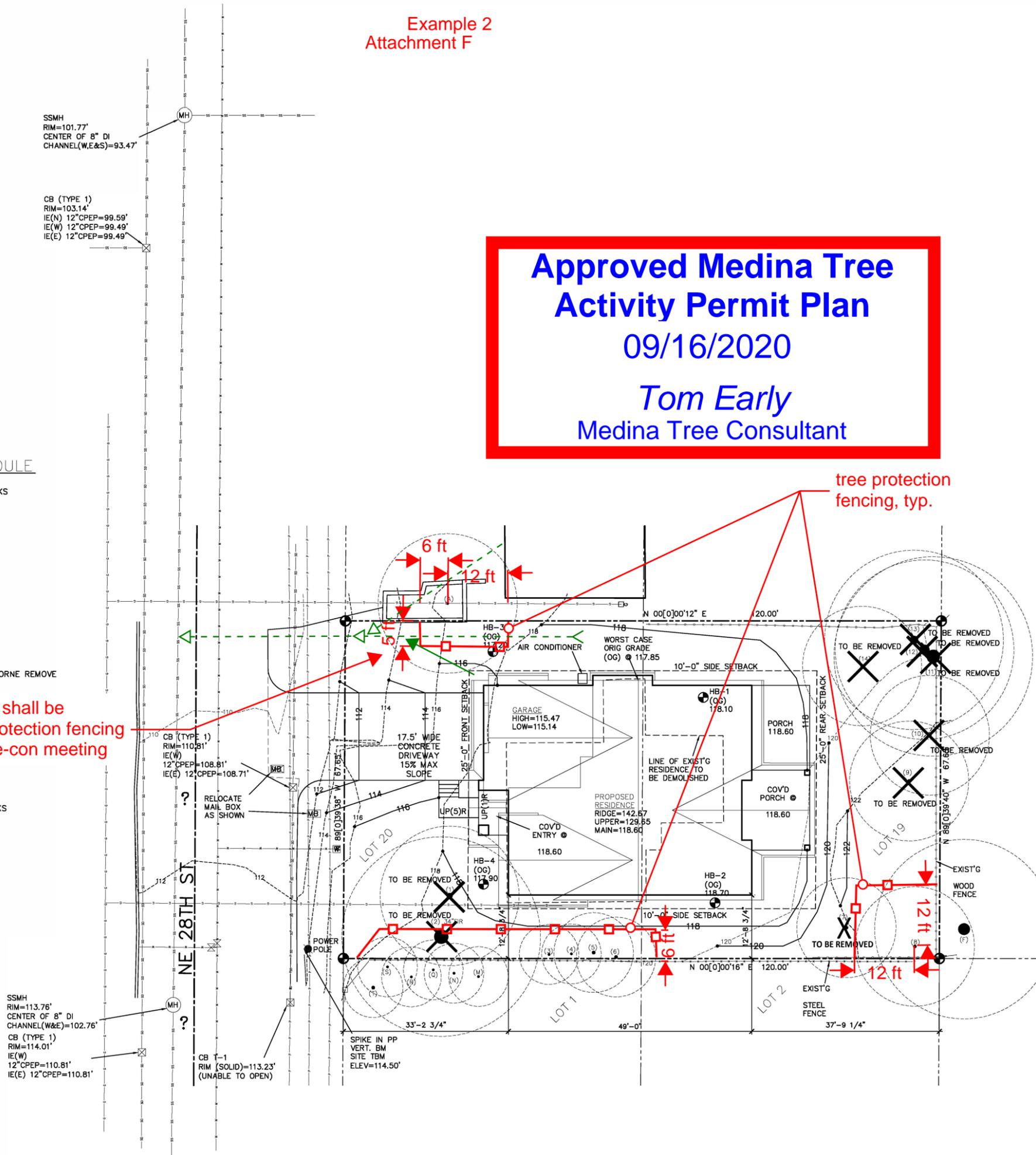
ONSITE TREES:
SYM DBH TYPE REMARKS

- 1 18" FIR REMOVE
- 2 44" FIR REMOVE
- 3 7" CEDAR SAVE
- 4 6" CEDAR SAVE
- 5 8" CEDAR SAVE
- 6 8.5" CEDAR SAVE
- 7 9.5" APPLE REMOVE
- 8 7" FIR SAVE
- 9 8" PLUM REMOVE
- 10 9" PLUM REMOVE
- 11 28" FIR REMOVED
- 12 26" FIR REMOVE
- 13 24" FIR REMOVE
- 14 10" ENGLISH HAWTHORNE REMOVE

OFFSITE TREES:
SYM DBH TYPE REMARKS

- A 6" MAP SAVE
- F 28" FIR SAVE
- M 6" CED SAVE
- N 6" CED SAVE
- Q 6" CED SAVE
- R 6" CED SAVE
- S 6" CED SAVE
- T 8" CED SAVE

SS connection on site shall be downstream of tree protection fencing per coordination at pre-con meeting



tree protection
fencing, typ.

OWNER

ACH HOMES LLC / CONTACT: MARISSA GOSS
9675 SE 36TH STREET, SUITE 105
MERCER ISLAND, WA 98040
PH: 206.588.1147 EX 107
EMAIL: MARISSA@AMERICANCLASSICHOMES.COM

SITE ADDRESS

7815 NE 28TH ST,
MEDINA WA 98039

LEGAL DESCRIPTION

HERRONS ADD W 1/2,
PLAT BLOCK: 9, PLAT LOT: 19-20
PARCEL NUMBER
326230-0903

ZONING

R-16
MIN FRONT SETBACK: 25'-0"
MIN REAR SETBACK: 25'-0"
MIN SIDE SETBACK: 10'-0"
MAX BLDG HEIGHT:
FROM ORIGINAL GRADE 25'-0"
FROM FINISHED GRADE 28'-0"
MAX STRUCTURAL COV'G: 30%
MAX IMPERVIOUS AREA: 55%

STRUCTURAL COV'G

GROSS LOT AREA:	8,118 SF
BLDG FOOTPRINT:	2,162 SF
PORCHES:	265 SF
TOTAL LOT COV'G AREA:	2,427 SF
% OF LOT AREA:	=29.89%
ALLOWED LOT COV'G AREA:	2,435 SF
ALLOWED % OF LOT AREA:	=30.00%

IMPERVIOUS

LOT AREA:	8,118 SF
ROOF & GUTTERS AREA:	2,782 SF
CONC WALKS AREA:	38 SF
DRIVEWAY AREA:	445 SF
UNCOVERED PATIO AREA:	196 SF
TOTAL IMPERVIOUS AREA:	3,461 SF
% OF LOT AREA:	=42.6 %
ALLOWED IMPERVIOUS AREA:	4,465 SF
ALLOWED % OF LOT AREA:	=55.00%



9675 S.E. 36th ST. MERCER ISLAND, WA 98040

REVISED	1.17.2020
	3.12.2020 5.11.2020

1"=10'-0"
SCALE
1.6.2020
DATE

COMPUTER FILE NAME
SITE
SHEET NUMBER

Sheet T-01a					
Tree #	Species	Original Survey Trunk Dia.	Tree Unit	Remove?	On-site tree tag #
1	Pink Flowering Dogwood, <i>Cornus florida</i>	6"	0.75	Yes	1
2	Pink Flowering Dogwood, <i>Cornus florida</i>	6"	0.75	Yes	2
3	Pink Flowering Dogwood, <i>Cornus florida</i>	6"	0.75	Yes	3
4	Pink Flowering Dogwood, <i>Cornus florida</i>	6"	0.75	Yes	11
5	Douglas Fir, <i>Pseudotsuga menziesii</i>	16"	1	Yes	4
6	Douglas Fir, <i>Pseudotsuga menziesii</i>	30"	1	Yes	12
7	Douglas Fir, <i>Pseudotsuga menziesii</i>	30"	1	Yes	13
8	Western Red Cedar, <i>Taxus plicata</i>	18"	1	Yes	14
9	Douglas Fir, <i>Pseudotsuga menziesii</i>	26"	1	Yes	15
10	Flowering Cherry, <i>Prunus sp.</i>	12"	1	No	16
11	Southern Magnolia, <i>Magnolia grandiflora</i>	16"	1	No	18
12	Flowering Cherry, <i>Prunus sp.</i>	15"	1	Yes	19
13	Western Red Cedar, <i>Taxus plicata</i>	38"	1	Yes	20
14	Douglas Fir, <i>Pseudotsuga menziesii</i>	35"	1	Yes	21
15	Douglas Fir, <i>Pseudotsuga menziesii</i>	24"	1	No	23
16	Douglas Fir, <i>Pseudotsuga menziesii</i>	18"	1	No	24
17	Douglas Fir, <i>Pseudotsuga menziesii</i>	30"	1	No	25
18	Douglas Fir, <i>Pseudotsuga menziesii</i>	32"	1	No	26
19	Douglas Fir, <i>Pseudotsuga menziesii</i>	30"	1	Yes	27
20	Douglas Fir, <i>Pseudotsuga menziesii</i>	24"	1	No	28
21	Douglas Fir, <i>Pseudotsuga menziesii</i>	24"	1	No	29
22	Douglas Fir, <i>Pseudotsuga menziesii</i>	16"	1	No	30
23	Douglas Fir, <i>Pseudotsuga menziesii</i>	18"	1	Yes	31
24	Douglas Fir, <i>Pseudotsuga menziesii</i>	32"	1	Yes	32
25	Douglas Fir, <i>Pseudotsuga menziesii</i>	25"	1	Yes	33
26	Mountain Ash, <i>Sorbus americana</i>	14"	1	Yes	35
27	Douglas Fir, <i>Pseudotsuga menziesii</i>	30"	1	Yes	36
28	Western Hemlock, <i>Tsuga heterophylla</i>	12"	1	No	38
29	Mountain Ash, <i>Sorbus americana</i>	12"	1	No	38
30	Pink Flowering Dogwood, <i>Cornus florida</i>	8"	0.75	Yes	40
31	Pink Flowering Dogwood, <i>Cornus florida</i>	8"	0.75	Yes	41
32	Flowering Cherry, <i>Prunus sp.</i>	20"	1	Yes	42
33	Pink Flowering Dogwood, <i>Cornus florida</i>	8"	0.75	No	43
34	Pink Flowering Dogwood, <i>Cornus florida</i>	6"	0.75	No	44
35	Pink Flowering Dogwood, <i>Cornus florida</i>	6"	0.75	No	45
36	Paperbark Birch, <i>Betula papyrifera</i>	16"	1	No	46
37	Big Leaf Maple, <i>Acer macrophyllum</i>	17"	1	No	47
38	Pink Flowering Dogwood, <i>Cornus florida</i>	6"	0.75	No	52

LEGEND

	WATER VALVE		CI CURB INLET
	IRRIGATION CONTROL BOX		CW CONCRETE WALK
	HYDRANT		YD YARD DRAIN
	WATER METER		SH SET HUB & TACK ON PROPERTY LINE
	MANHOLES (SS/SD)		
	CB		
	POWER TRANSFORMER		
	JUNCTION BOX		
	TELEPHONE/TV RISER		
	GAS METER		
	STREET LIGHT		
	YARD LIGHT		
	SPOT ELEVATION		
	SIGN		
	MAILBOX		
	ROCKERY		
	CONIFEROUS TREE		
	DECIDUOUS TREE		
	FOUND CASIED MONUMENT		

Tree Protection Plan
Tree protection measures shall be implemented and maintained before and during all construction activities. Tree protection zones will be established and install using protective fencing at the drip line or other barriers that are at least four feet in height. The grading levels around the protected will be largely maintained at their original grade and trenches for utilities will be positioned to minimize negative effects on the tree root structure. Pruning and storage will be kept out of tree protection zones as much as possible. The protected trees will be properly cared for during construction, including any necessary watering, fertilization, pruning or pest control.

RECORD LEGAL DESCRIPTION:

LOT 6, BLOCK 2, FAIRWAY VIEW NO. 2, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 71 OF PLATS, PAGES 2 AND 3 IN KING COUNTY, WASHINGTON;

TOGETHER WITH A PARCEL OF LAND ADJACENT THERETO DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWESTERLY CORNER OF LOT 6, BLOCK 2, FAIRWAY VIEW NO. 2;

THENCE SOUTH 26°08'11" EAST, TO AN INTERSECTION WITH A LINE PARALLEL TO AND 30 FEET DISTANT WESTERLY MEASURED AT RIGHT ANGLES, FROM THE NORTH LINE OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 25 NORTH, RANGE 4 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON;

THENCE SOUTH 88°06'40" EAST ALONG SAID PARALLEL LINE TO THE EAST LINE OF SAID SOUTHWEST QUARTER OF NORTHEAST QUARTER;

THENCE NORTH 1°25'27" EAST, ALONG SAID EAST LINE A DISTANCE OF 30 FEET TO THE NORTH LINE OF SAID SOUTHWEST QUARTER OF NORTHEAST QUARTER;

THENCE NORTH 88°06'40" WEST, ALONG SAID NORTH LINE A DISTANCE OF 175 FEET TO THE POINT OF BEGINNING;

AND THE NORTHERLY 30 FEET OF THE WESTERLY 30 FEET OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 25 RANGE 4 EAST WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON;

AND BEGINNING AT THE NORTHEAST CORNER OF LOT 6, BLOCK 2, FAIRWAY VIEW NO. 2;

THENCE SOUTH 54°34'33" EAST, TO AN INTERSECTION WITH A LINE PARALLEL TO AND 30 FEET DISTANT EASTERLY MEASURED AT RIGHT ANGLES, FROM THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 25 RANGE 4 EAST WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON;

THENCE SOUTH 1°25'27" WEST ALONG SAID PARALLEL LINE TO THE SOUTH LINE OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER SECTION 25, TOWNSHIP 25 RANGE 4 EAST WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON;

THENCE NORTH 88°06'40" WEST, A DISTANCE OF 30 FEET TO THE WEST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST;

THENCE NORTH 1°25'27" EAST, A DISTANCE OF 70 FEET TO THE POINT OF BEGINNING.

NOTES:

HORIZONTAL DATUM: NAD 83, 2011 WASHINGTON COORDINATE SYSTEM NORTH ZONE BASED ON GPS MEASUREMENTS CONSTRAINED TO THE WASHINGTON STATE REFERENCE NETWORK.

VERTICAL DATUM: NAVD 88 BASED ON GPS MEASUREMENTS CONSTRAINED TO THE WASHINGTON STATE REFERENCE NETWORK.

SITE AREA: 40,108 SQ FT ± 0.92 ACRES ±

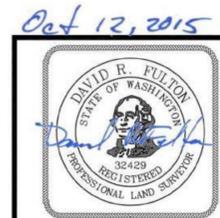
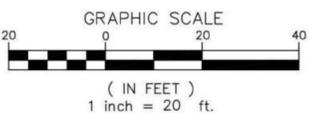
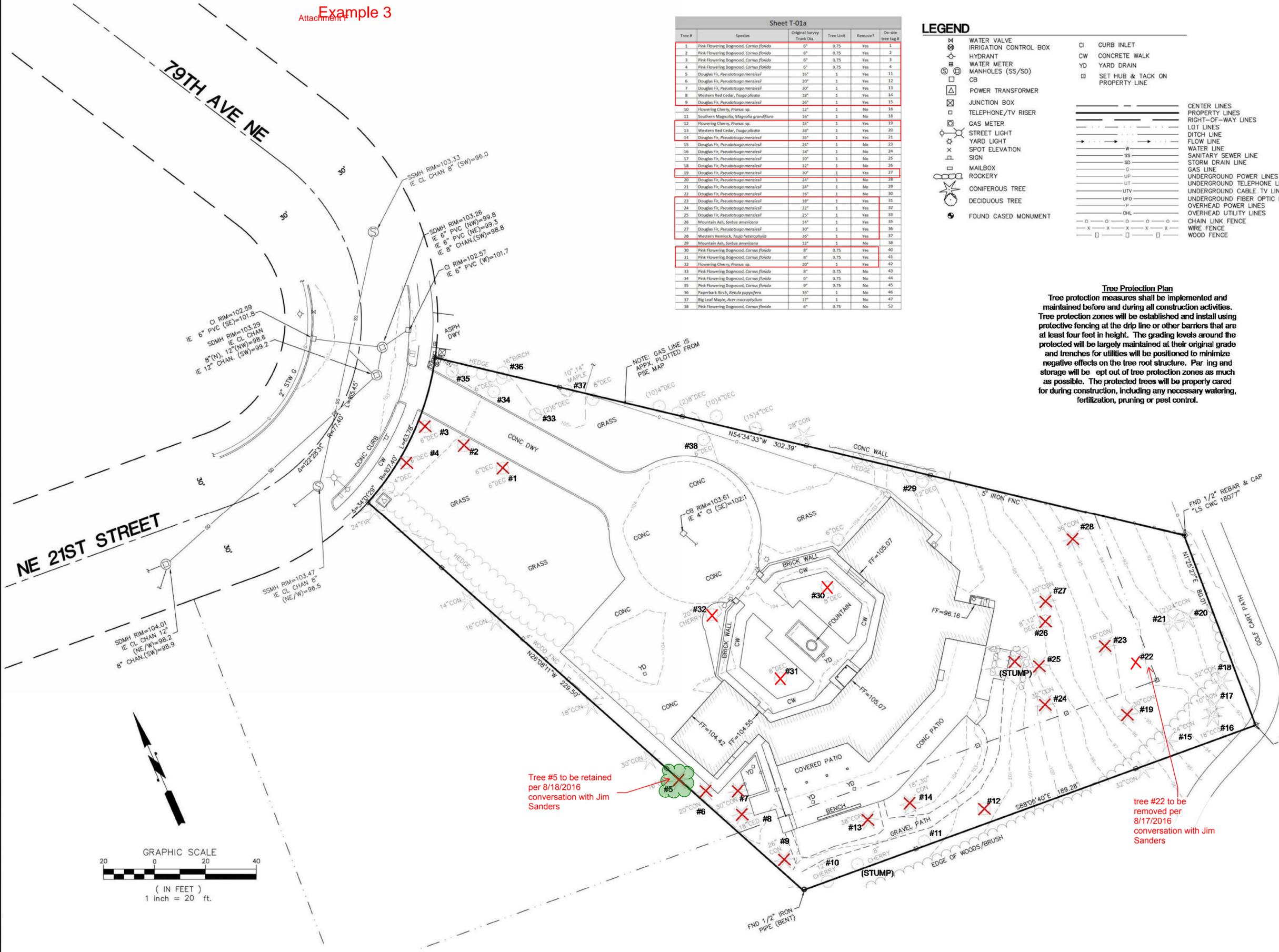
ALL DISTANCES SHOWN ARE GROUND DISTANCES UNLESS OTHERWISE NOTED.

THE LOCATION AND DESCRIPTION OF ALL SURVEY MARKERS SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS TAKEN IN APRIL, 2015, UNLESS OTHERWISE INDICATED.

WORK PERFORMED IN CONJUNCTION WITH THIS SURVEY UTILIZED THE FOLLOWING EQUIPMENT AND PROCEDURES: (A) 1" TRIMBLE S6 SERIES ELECTRONIC TOTAL STATION, MAINTAINED TO THE MANUFACTURER'S SPECIFICATIONS PER W.A.C. 332-130-100. (B) FIELD TRAVERSE, EXCEEDING REQUIREMENTS SET FORTH IN W.A.C. 332-130-090.

THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND DOES NOT PURPORT TO SHOW ALL EASEMENTS.

THIS TOPOGRAPHIC SURVEY DRAWING ACCURATELY PRESENTS SURFACE FEATURES LOCATED DURING THE COURSE OF THIS SURVEY. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED SOLELY UPON INFORMATION PROVIDED BY OTHERS AND PACE ENGINEERS, INC. DOES NOT ACCEPT RESPONSIBILITY OR ASSUME LIABILITY FOR THEIR ACCURACY OR COMPLETENESS. CONTRACTOR/ENGINEERS SHALL VERIFY EXACT SIZE AND LOCATION PRIOR TO CONSTRUCTION. CALL FOR LOCATE: UTILITY LOCATION SERVICE: 811



FILE NAME: P:\P15\15417.10 BROWERCK GROUP - MEDINA SURVEY\CAD\SURVEY\2014_CSD\NEFS\15417-SRV.DWG
 DATE: 8/14/2015 10:05:44 AM
 SAVE TIME: 10/12/2015
 USER NAME: DAVID FULTON
 PLOT FILE: SURVEY_PACE_30624.DWG

CAD/CALC OHARE					
DRAWN	DMB				
PLAT CHK OHARE					
SYMBOL	REVISION	DATE	BY	APP'D	

PACE
An Engineering Services Company

11255 Kirkland Way, Suite 300
Kirkland, WA 98033
p. 425.827.2014 | f. 425.827.5043
Civil | Structural | Planning | Survey
paceengrs.com

TAX LOT 2487010-0100
2000 79TH AVE NE
98039 MEDINA, WA.

DATE: 4-24-15
SCALE: 1" = 20'
SURVEY TEAM: PG
FIELD BOOK: 723
DWG FILE: 15417-SRV.DWG

BOUNDARY & TOPOGRAPHIC SURVEY
FOR
JHR CONSTRUCTION, INC.

PORTION OF: NW1/4, NE 1/4, SECTION 25, T. 25 N., R. 4 E., W.M.

PROJECT NO.
15417.10

SHEET **1** OF **1**



CITY OF MEDINA
DEVELOPMENT SERVICES
 425-233-6414
 425-233-6400

Administrative Tree Activity Permit

T-01

Instructions: Complete this form for the following:

- The property is designated as under development (MMC 20.52.100)
- Removal of any significant tree on private property having a 6-inch DBH and larger size that is not a legacy tree
- Removal of any non-significant tree on private property within 200 feet of the shoreline having a 6-inch DBH and larger size that is not a legacy tree
- Removal of a hazard tree from the city right-of-way

<input checked="" type="checkbox"/> New Application	Staff Only	Date Received: 8/28/17	By: <i>Kmck</i>	Permit No. Tree-17-033
Property Information				
Property Address: 1306 Evergreen Point Road				Check if tree is:
Tax Parcel No. 3025300128				<input type="checkbox"/> Within 200 feet of shoreline
				<input type="checkbox"/> Within a critical area (Ch. 18.12 MMC)
Legal Property Owner Information				



CITY OF MEDINA
DEVELOPMENT SERVICES
425-233-6414
425-233-6400

Tree Performance Worksheet

T-01a

Instructions: Complete and attach this form to T-01 for the following: <ul style="list-style-type: none"> The property is designated as under development pursuant to MMC 20.52.100 The applicant is using the tree performance standards in MMC 20.52.130 	File No. <input type="checkbox"/> New <input type="checkbox"/> Revision
---	--

STEP 1: Inventory existing tree units	Conduct an inventory of all significant trees within the boundaries of the lot.
--	---

No.	Tree	DBH	No.	Tree	DBH
1	See Attached List		7		
2			8		
3			9		
4			10		
5			11		
6			12		

STEP 2: Calculate Existing Tree Units	From Table 20.52.130(C): add together the number of significant trees in each range below and multiply by the corresponding value to produce Existing Tree Units.
--	---

A.	Total number of trees at least 6 inches, but less than 10 inches DBH	4	X 0.75 =	3	D. TOTAL EXISTING TREE UNITS (A + B + C) 20
B.	Total number of trees 10 inches DBH and larger	17	X 1.00 =	17	
C.	Total number of conifer trees 50 inches DBH and larger	0	X 1.25 =	0	

STEP 3: Inventory removed trees	List the significant trees that are proposed for removal. This information will be used in Step 4 and 7 (if applicable).
--	--

No.	Tree	DBH	No.	Tree	DBH
	See Attached Sheet				

STEP 4: Calculate Net Existing Tree Units	To calculate Net Existing Tree Units, add together the number of significant trees in each range below that are proposed for removal and multiply by the corresponding value. Then follow H and I.
--	--

E.	Total number of trees removed at least 6 inches, but less than 10 inches DBH	1	X 0.75 =	.75	H. TOTAL TREE UNITS TO BE REMOVED (E + F + G)
F.	Total number of trees removed 10 inches DBH and larger	11	X 1.00 =	11	
G.	Total number of conifer trees 50 inches DBH and larger	0	X 1.25 =	0	

STEP 5: Calculate Required Tree Units	To calculate Required Tree Units, perform the calculations in J through M.
--	--

J. Lot Area (sq. ft.)	K. Divide J by 1,000	L. Tree Density Ratio (check one)	M. REQUIRED TREE UNITS (Multiply K x L)	(round up)
16,364	16.36	<input checked="" type="checkbox"/> 0.35 (residential) <input type="checkbox"/> Table 20.52.130.B	6	

STEP 6: Determine if Supplemental Trees are required	Subtract the Tree Units in M from the Tree Units in I. <ul style="list-style-type: none"> If the difference is zero or a positive number - stop. No supplemental trees are required. If the difference is a negative number then go to Step 7. 	N. 2.25
---	--	------------

See Page 2 for Step 7 and for additional inventory tables

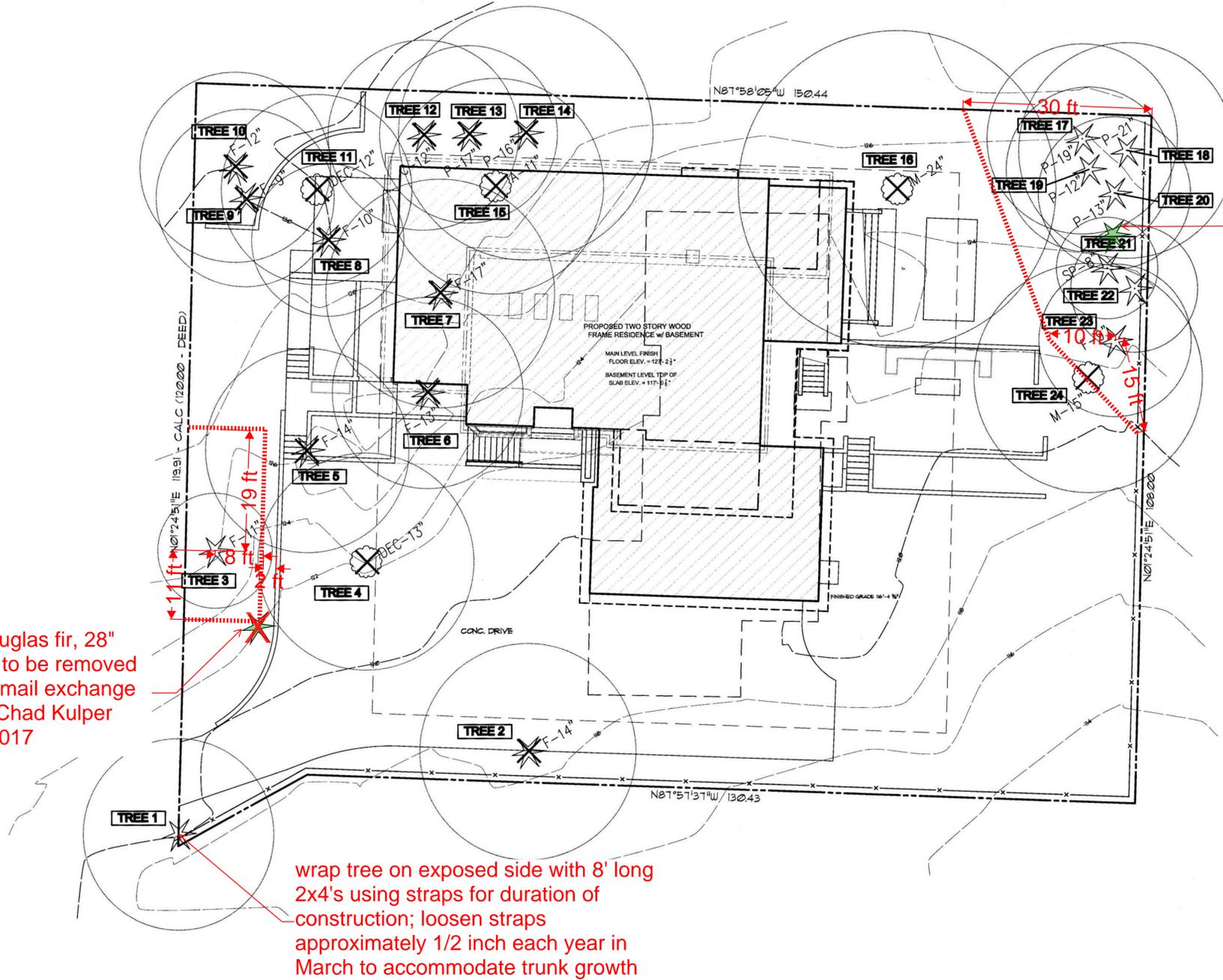
Tree Retention Table - 1306 Evergreen Point Drive

Tree	Species	DBH (Inches)	Retain	Remove
1	Fir	16	16	
2	Fir	14		14
3	Fir	11	11	
4	Dec	13		13
5	Fir	14		14
6	Fir	Foundation		13
7	Fir	Foundation		17
8	Fir	10		10
9	Fir	9		9
10	Fir	12		12
11	Dec	12		12
12	Cedar	12		12
13	Pine	17		17
14	Pine	16		16
15	Apple	Foundation		11
16	Maple	24		24
17	Pine	19	19	
18	Pine	21	21	
19	Pine	12	12	
20	Pine	13	13	
21	Spruce	8	8	
22	Fir	9	9	
23	Fir	9	9	
24	Maple	15		15
		286	118	209
			41%	

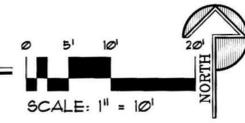
50 Percent	143
40 Percent	114
35 Percent	100
25 Percent	72

TREE RETENTION TABLE				
TREE	SPECIES	DBH (INCHES)	RETAIN	REMOVE
1	FIR	16"	16	
2	FIR	14"		14
3	FIR	11"	11	
4	DEC.	13"		13
5	FIR	14"		14
6	FIR	0"		13
7	FIR	0"		17
8	FIR	10"		10
9	FIR	9"		9
10	FIR	12"		12
11	DEC.	12"		12
12	CEDAR	12"		12
13	PINE	17"		17
14	PINE	16"		16
15	APPLE	0"		11
16	MAPLE	24"		24
17	PINE	19"	19	
18	PINE	21"	21	
19	PINE	12"	12	
20	PINE	13"	13	
21	SPRUCE	8"	8	
22	FIR	9"	9	
23	FIR	9"	9	
24	MAPLE	15"		15
TOTAL	0.00'	286"	118	209

TOTAL TREE RETENTION : 41%



TREE RETENTION PLAN



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 John Buchan Homes

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JOHN F. BUCHAN
 HOMES

282 Normus Way, Bellevue, WA 98004, Telephone: (206) 807-7266
 No. 17937-80113, John F. Buchan Construction Incorporated

Wood Frame Single Family Residence
 New Residence for Glenn Xin
 Tree Retention Plan

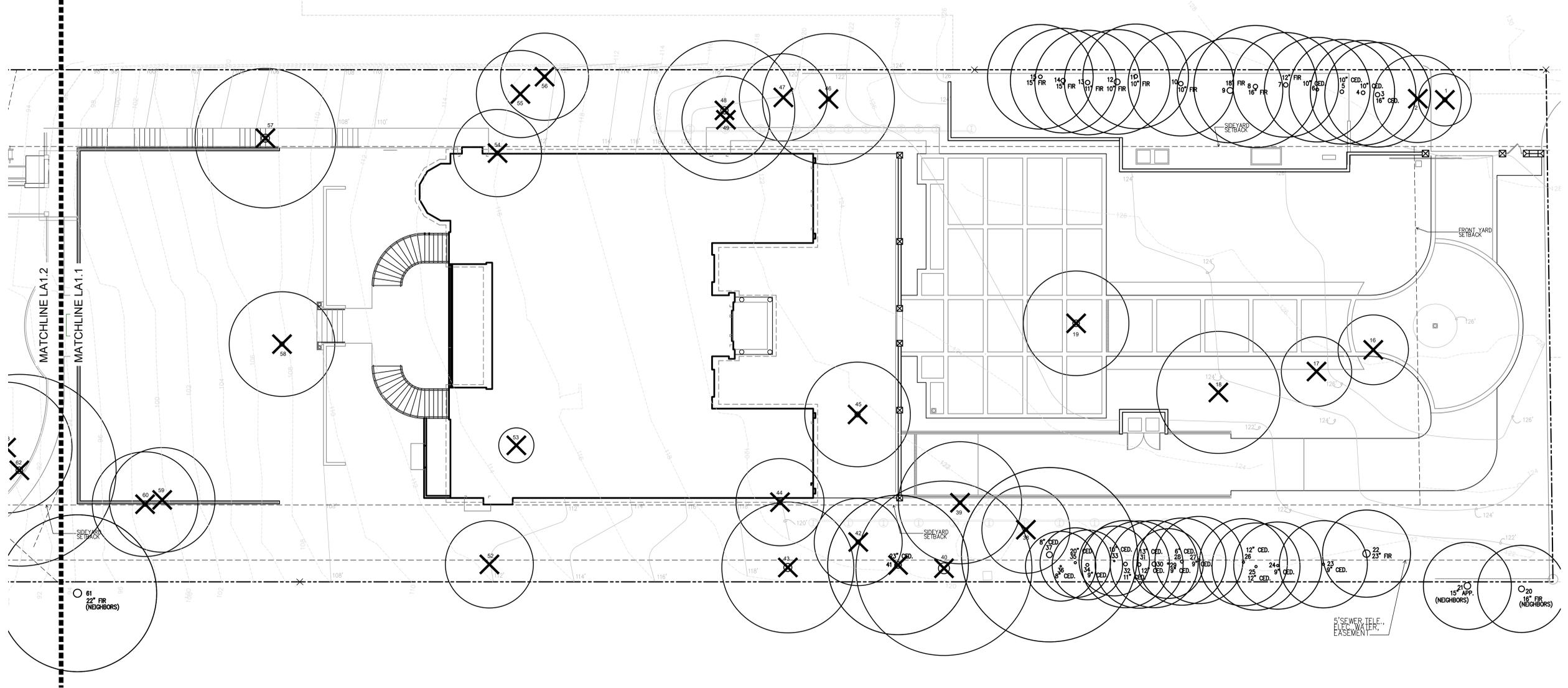
Project Date:

Revision	Date

Project:	New Custom
Issue Date:	Qtr 1 2017
Design by:	t.daigle
Drawn by:	ted
Engineer of Record:	tbd

Sheet
A1.2a
 of: 23

Example 5



TREE MANAGEMENT INFORMATION

LOT COVERAGE = 65,556 SF
 65,556 SF / 1,000 = 65.56
 65.56 x .35 (TREE DENSITY RATIO) = 22.95 REQUIRED TREE UNITS = 23

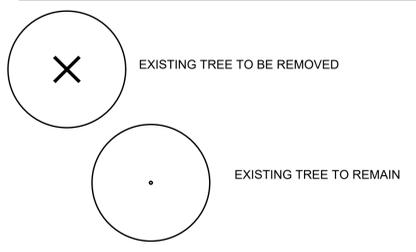
EXISTING TREE INVENTORY (NUMBER CORRESPONDS TO ARBORIST REPORT TAG #)				
NO.	SPECIES	DBH	TREE UNIT RETAIN	TREE UNIT REMOVE
1	CEDAR	16"		1.00
2	CEDAR	6.5"		0.75
3	CEDAR	16"	1.00	
4	CEDAR	10"	0.75	
5	CEDAR	10"	0.75	
6	CEDAR	10"	0.75	
7	FIR	12"	1.00	
8	FIR	16"	1.00	
9	FIR	18"	1.00	
10	FIR	10"	0.75	
11	FIR	10"	0.75	
12	FIR	10"	0.75	
13	FIR	11"	1.00	
14	FIR	15"	1.00	
15	FIR	15"	1.00	
16	CEDAR	9"		0.75
17	HEMLOCK	11"		1.00
18	FIR	10"		0.75
19	APPLE	15"		1.00
20	FIR (NEIGHBOR)	16"		
21	FIR (NEIGHBOR)	18"		
22	FIR	23"	1.00	
23	CEDAR	9"	0.75	
24	CEDAR	9"	0.75	
25	CEDAR	12"	1.00	
26	CEDAR	12"	1.00	
27	CEDAR	9"	0.75	
28	CEDAR	6"	0.75	
29	CEDAR	9"	0.75	
30	CEDAR	12"	1.00	
31	CEDAR	13"	1.00	
32	CEDAR	11"	1.00	
33	CEDAR	10"	0.75	
34	CEDAR	9"	0.75	
35	CEDAR	20"	1.00	
36	CEDAR	8"	0.75	
37	CEDAR	8"	0.75	
38	YEW	13"		1.00
39	APPLE	16"		1.00

40	CEDAR	35"		1.00
41	CEDAR	23"		1.00
42	DOGWOOD	12"		1.00
43	CEDAR	27"		1.00
44	CEDAR	17"		1.00
45	APPLE	16"		1.00
46	CEDAR	35"		1.00
47	CEDAR	23"		1.00
48	DOGWOOD	12"		1.00
49	CEDAR	27"		1.00
52	HAZELNUT	2x 6"		0.75
53	APPLE	8"		0.75
54	PLUM	12"		1.00
55/56	CEDAR X 2	26"		1.00
57	CEDRUS	22"		1.00
58	CYPRESS	22"		1.00
59	CEDAR	8"		0.75
60	FIR	12"		1.00
61	FIR (NEIGHBOR)	22"		
62	CHERRY	18"		1.00
63	HAWTHORN	10"		0.75
64	COTTONWOOD	20"		1.00
65	FIR	10"		0.75
66	FIR	10"		0.75
67	FIR	36"	1.00	
68	FIR	16"	1.00	
69	MAPLE	36"	1.00	
70	COTTONWOOD	36"	1.00	
71	COTTONWOOD	36"	1.00	
72/73	CHERRY X 2	10"	0.75	
74	CEDAR	6"	0.75	
75	CEDAR	6"	0.75	
76	CEDAR	9"	0.75	
77	MOUNTAIN ASH	10"	0.75	
78	CEDAR	8"	0.75	
79	CEDAR	6"	0.75	
80	CEDAR	6"	0.75	
81	CEDAR	6"	0.75	
82	CEDAR	6"	0.75	
83	CEDAR	6"	0.75	
84	MADRONE	12"	1.00	
85	HAZELNUT	8"	0.75	

86	MADRONE	12"		1.00
87	HAWTHORN	12"		1.00
88	DOGWOOD	10"		0.75
89	HAZELNUT	8"		0.75
90	ASH	8"		0.75
91	MAPLE SPROUTS	10"		0.75
92	MAPLE SPROUTS	8"		0.75
93	COTTONWOOD	38"		1.00

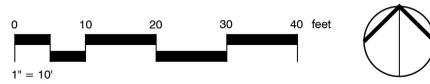
75.75 = TOTAL EXISTING TREE UNITS
 47.0 = TOTAL TREE UNITS TO REMAIN
 28.75 = TOTAL TREE UNITS TO BE REMOVED
 75.75 - 28.75 = 47.0
 23 (REQUIRED TREE UNITS) - 47.0 = -24.0
 0 SUPPLEMENTAL TREES REQUIRED

TREE REMOVAL SCHEDULE



- NOTES:
- TREE LOCATIONS BASED ON THE TOPOGRAPHIC SURVEY, TERRANE, DATED 07/27/16.
 - TREE NUMBERS BASED ON ARBORIST REPORT & MAP, ROBERT W. WILLIAMS & ASSOCIATES CONSULTING ARBORISTS DATED 5/22/17.

SHEET INDEX	
SHEET	DESCRIPTION
LA1.1	PROPOSED TREE REMOVAL PLAN
LA1.2	PROPOSED TREE REMOVAL PLAN
LA2.1	PLANTING PLAN
LA2.2	PLANTING PLAN
LA3.1	PLANTING DETAILS



REVISIONS

NO.	DATE	BY
01	08.22.2018	LG
02	10.05.2018	LG
03	02.20.2019	JL

SCJ STUDIO
 LANDSCAPE ARCHITECTURE
 1148 NW LEARWAY, SEATTLE, WA 98107
 206.708.7868
 SCSTUDIO.COM

PROPOSED TREE REMOVAL PLAN

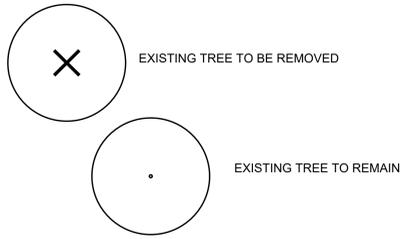
Medina Vineyard Trust
 1228 E. Green Point Road
 Seattle, WA 98105

PERMIT SET
 NOT FOR
 CONSTRUCTION

DESIGNER: MG
 DRAWN BY: LG
 APPROVED BY: MG
 DATE: JULY, 2018
 JOB No: 2578
 DRAWING FILE No:
 DRAWING No: LA1.1
 SHEET No: 1 of 05

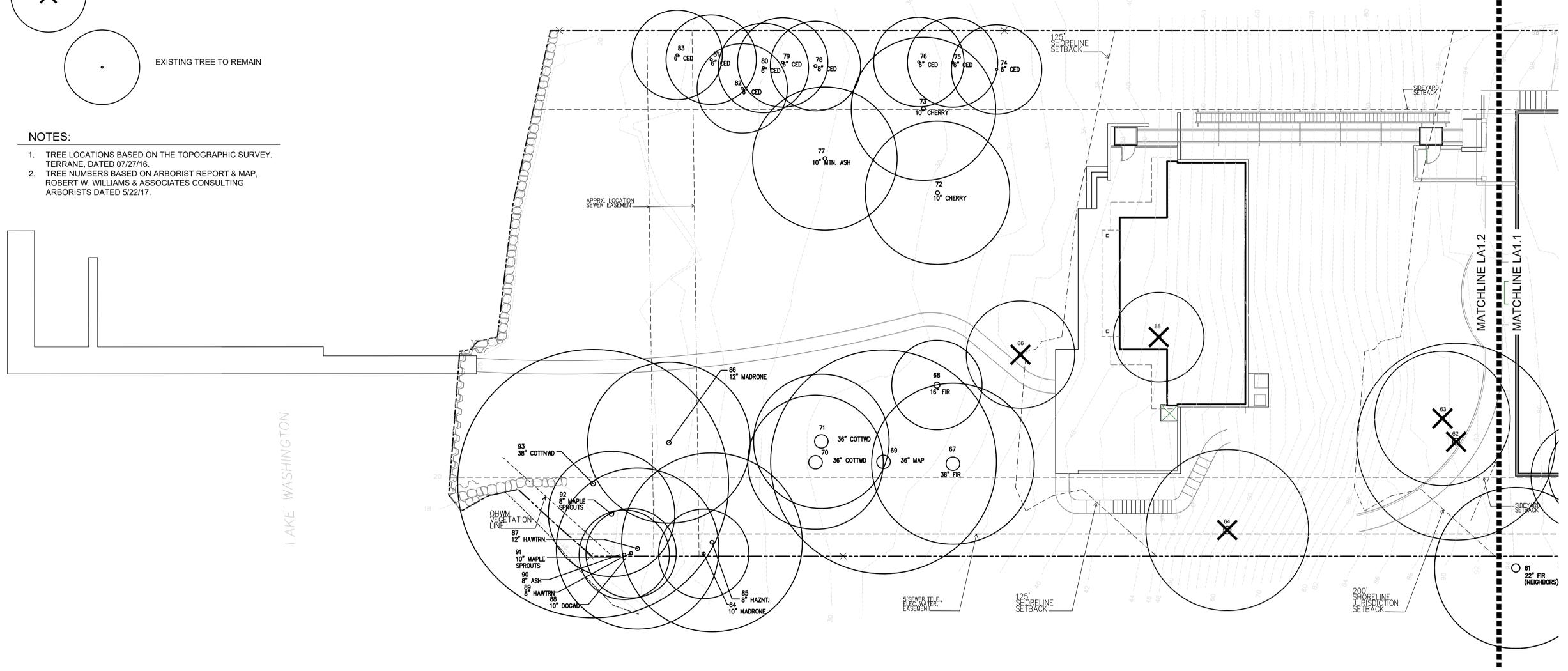
Example 5

TREE REMOVAL SCHEDULE



NOTES:

- TREE LOCATIONS BASED ON THE TOPOGRAPHIC SURVEY, TERRANE, DATED 07/27/16.
- TREE NUMBERS BASED ON ARBORIST REPORT & MAP, ROBERT W. WILLIAMS & ASSOCIATES CONSULTING ARBORISTS DATED 5/22/17.



TREE MANAGEMENT INFORMATION

LOT COVERAGE = 65,556 SF
 65,556 SF / 1,000 = 65.56
 65.56 x .35 (TREE DENSITY RATIO) = 22.95 REQUIRED TREE UNITS = 23

EXISTING TREE INVENTORY (NUMBER CORRESPONDS TO ARBORIST REPORT TAG #)				
NO.	SPECIES	DBH	TREE UNIT RETAIN	TREE UNIT REMOVE
1	CEDAR	16"		1.00
2	CEDAR	6.5"		0.75
3	CEDAR	16"	1.00	
4	CEDAR	10"	0.75	
5	CEDAR	10"	0.75	
6	CEDAR	10"	0.75	
7	FIR	12"	1.00	
8	FIR	16"	1.00	
9	FIR	18"	1.00	
10	FIR	10"	0.75	
11	FIR	10"	0.75	
12	FIR	10"	0.75	
13	FIR	11"	1.00	
14	FIR	15"	1.00	
15	FIR	15"	1.00	
16	CEDAR	9"		0.75
17	HEMLOCK	11"		1.00
18	FIR	10"		0.75
19	APPLE	15"		1.00
20	FIR (NEIGHBOR)	16"		
21	FIR (NEIGHBOR)	18"		
22	FIR	23"	1.00	
23	CEDAR	9"	0.75	
24	CEDAR	9"	0.75	
25	CEDAR	12"	1.00	
26	CEDAR	12"	1.00	
27	CEDAR	9"	0.75	
28	CEDAR	6"	0.75	
29	CEDAR	9"	0.75	
30	CEDAR	12"	1.00	
31	CEDAR	13"	1.00	
32	CEDAR	11"	1.00	
33	CEDAR	10"	0.75	
34	CEDAR	9"	0.75	
35	CEDAR	20"	1.00	
36	CEDAR	8"	0.75	
37	CEDAR	8"	0.75	
38	YEW	13"		1.00
39	APPLE	16"		1.00

40	CEDAR	35"		1.00
41	CEDAR	23"		1.00
42	DOGWOOD	12"		1.00
43	CEDAR	27"		1.00
44	CEDAR	17"		1.00
45	APPLE	16"		1.00
46	CEDAR	35"		1.00
47	CEDAR	23"		1.00
48	DOGWOOD	12"		1.00
49	CEDAR	27"		1.00
52	HAZELNUT	2x 6"		0.75
53	APPLE	8"		0.75
54	PLUM	12"		1.00
55/56	CEDAR X 2	26"		1.00
57	CEDRUS	22"		1.00
58	CYPRESS	22"		1.00
59	CEDAR	8"		0.75
60	FIR	12"		1.00
61	FIR (NEIGHBOR)	22"		
62	CHERRY	18"		1.00
63	HAWTHORN	10"		0.75
64	COTTONWOOD	20"		1.00
65	FIR	10"		0.75
66	FIR	10"		0.75
67	FIR	36"	1.00	
68	FIR	16"		1.00
69	MAPLE	36"	1.00	
70	COTTONWOOD	36"	1.00	
71	COTTONWOOD	36"	1.00	
72/73	CHERRY X 2	10"	0.75	
74	CEDAR	6"	0.75	
75	CEDAR	6"	0.75	
76	CEDAR	9"	0.75	
77	MOUNTAIN ASH	10"	0.75	
78	CEDAR	8"	0.75	
79	CEDAR	6"	0.75	
80	CEDAR	6"	0.75	
81	CEDAR	6"	0.75	
82	CEDAR	6"	0.75	
83	CEDAR	6"	0.75	
84	MADRONE	12"	1.00	
85	HAZELNUT	8"	0.75	

86	MADRONE	12"		1.00
87	HAWTHORN	12"		1.00
88	DOGWOOD	10"		0.75
89	HAZELNUT	8"		0.75
90	ASH	8"		0.75
91	MAPLE SPROUTS	10"		0.75
92	MAPLE SPROUTS	8"		0.75
93	COTTONWOOD	38"		1.00

75.75 = TOTAL EXISTING TREE UNITS
 47.0 = TOTAL TREE UNITS TO REMAIN
 28.75 = TOTAL TREE UNITS TO BE REMOVED
 75.75 - 28.75 = 47.0
 23 (REQUIRED TREE UNITS) - 47.0 = -24.0
 0 SUPPLEMENTAL TREES REQUIRED

PROPOSED TREE REMOVAL IN 125' SHORELINE SETBACK

TREE NUMBERS BASED ON THE ARBORIST'S REPORT & MAP, ROBERT W. WILLIAMS & ASSOCIATES CONSULTING ARBORISTS DATED 5/22/17.

NO.	SPECIES	DBH
66	FIR	10"

PROPOSED TREE REPLACEMENT IN 125' SHORELINE SETBACK

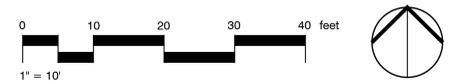
QTY.	BOTANNICAL/COMMON NAME	SIZE/SPACING
1	TSUGA MERTENSIANA MOUNTAIN HEMLOCK	6' HT. MIN.
2	SALIX LASIANDRA PACIFIC WILLOW	6' HT. MIN.

TREES REQUIRED = 1
 TREES PROVIDED = 3
 EVERGREEN TREES REMOVED = 1
 DECIDUOUS TREES REMOVED = 0
 240 SF OF NATIVE RIPARIAN VEGETATION REQUIRED
 + 350 SF OF NATIVE RIPARIAN VEGETATION PROVIDED

PROPOSED TREE REMOVAL IN 200' SHORELINE JURISDICTION

TREE NUMBERS BASED ON THE ARBORIST'S REPORT & MAP, ROBERT W. WILLIAMS & ASSOCIATES CONSULTING ARBORISTS DATED 5/22/17.

NO.	SPECIES	DBH
62	CHERRY	18"
63	HAWTHORN	10"
64	COTTONWOOD	20"
65	FIR	10"



REVISIONS

NO.	DATE	BY	LG
01	08.22.2018		
02	10.02.2018		
03	05.22.2019		

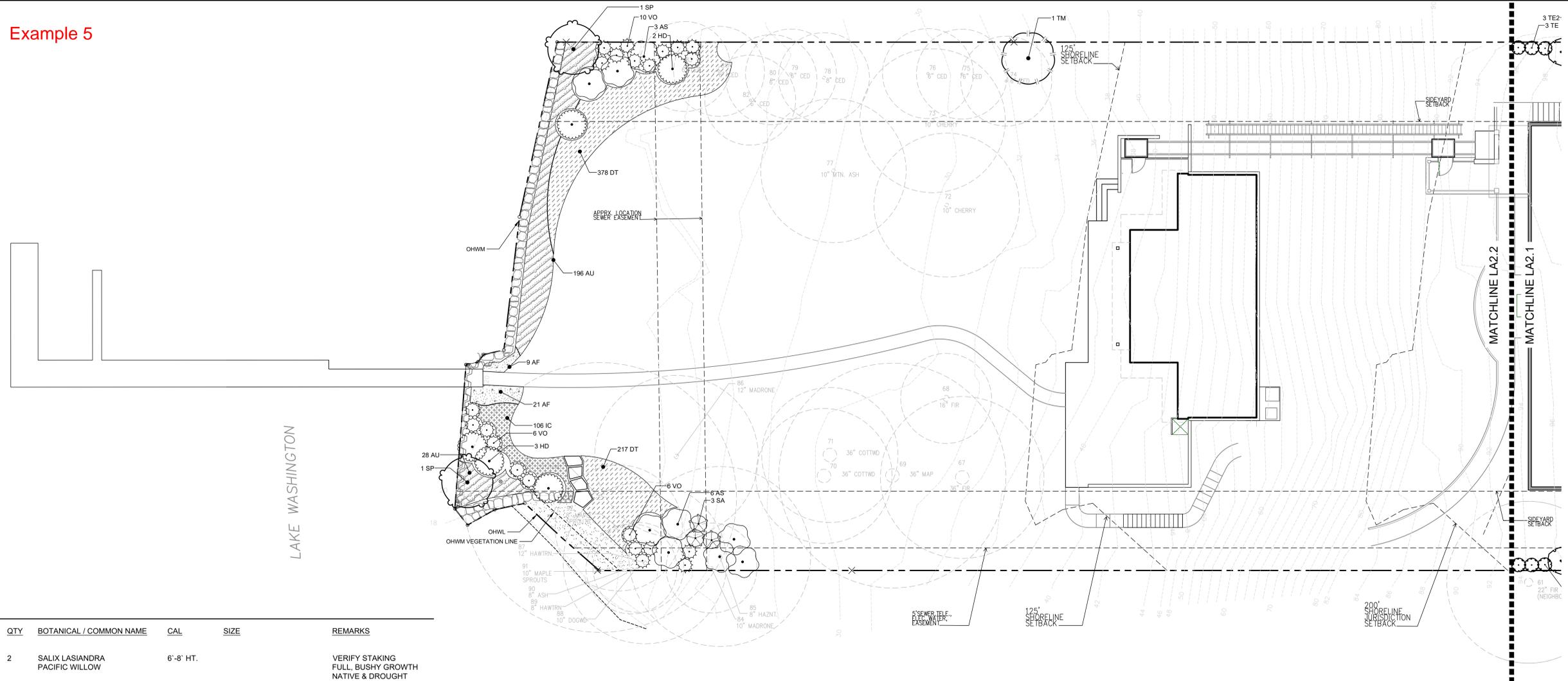
SCJ STUDIO
 LANDSCAPE ARCHITECTURE
 1148 NW LEARY WAY, SEATTLE, WA 98107
 P. 206-708-1862
 SCSTUDIOA.COM

PROPOSED TREE REMOVAL PLAN
 Medina Vineyard Trust
 1228 Evergreen Point Road
 Seattle, WA 98105

PERMIT SET
 NOT FOR
 CONSTRUCTION

DESIGNER: MG
 DRAWN BY: LG
 APPROVED BY: MG
 DATE: JULY, 2018
 JOB No: 2578
 DRAWING FILE No:
 DRAWING No: LA1.2
 SHEET No: 2 OF 05

Example 5



PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CAL	SIZE	REMARKS
	SP	2	SALIX LASIANDRA PACIFIC WILLOW	6"-8" HT.		VERIFY STAKING FULL, BUSHY GROWTH NATIVE & DROUGHT TOLERANT NATIVE & DROUGHT TOLERANT
	TM	1	TSUGA MERTENSIANA MOUNTAIN HEMLOCK	B&B/CONT.	6" MIN. HT.	SPECIMENS NATIVE & DROUGHT TOLERANT
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	HT.	REMARKS
	AS	9	AMELANCHIER ALNIFOLIA SERVICEBERRY	5 GAL	30" HT.	FULL, BUSHY GROWTH NATIVE & DROUGHT TOLERANT
	HD	5	HOLIDISCUS DISCOLOR OCEAN-SPRAY	5 GAL		FULL, BUSHY GROWTH NATIVE & DROUGHT TOLERANT
	SA	3	SYMPHORICARPOS ALBUS COMMON WHITE SNOWBERRY	2 GAL	18" SPREAD	FULL, BUSHY GROWTH NATIVE & DROUGHT TOLERANT
	VO	22	VACCINIUM OVATUM EVERGREEN HUCKLEBERRY	2 GAL	18" HT.	FULL, BUSHY GROWTH NATIVE & DROUGHT TOLERANT
SHRUB AREAS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	REMARKS
	AF	30	ASTER X FRIKARTII ASTER	1 GAL	18" o.c.	FULL, BUSHY GROWTH NATIVE & DROUGHT TOLERANT
	DT	595	DESCHAMPSIA CESPITOSA TUFTED HAIR GRASS	1 GAL	12" o.c.	FULL, BUSHY GROWTH NATIVE & DROUGHT TOLERANT
	IC	106	IRIS X CALIFORNICAE PACIFIC COAST IRIS	1 GAL	12" o.c.	FULL, BUSHY GROWTH NATIVE & DROUGHT TOLERANT
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SPACING	REMARKS
	AU	255	ARCTOSTAPHYLOS UVA-URSI KINNIKINNICK	4"POT	15" o.c.	

NOTES:

- ALL TREES, DECIDUOUS & EVERGREEN, TO HAVE A 3'-0" DIA. MULCH RING. DECIDUOUS TREES TO BE STAKED, VERIFY STAKING OF POSSIBLE NEED TO STAKE EVERGREEN TREES W/L.A.
- PROVIDE 6" DEPTH OF COMPOSTED MULCH PRODUCT AS AN AMENDMENT TO EX. SOIL IN SHRUB BED AT TOP OF ROCK BULKHEAD. INCORPORATE & EVENLY MIX INTO EX. SOIL TO A DEPTH OF 12" PRIOR TO PLANTING.
- VERIFY METHOD OF STAKING WILLOW TREES SO THAT THEY HANG & GROW OVER THE ROCKERY TO PROVIDE HABITAT.
- PROVIDE 2" MIN. DEPTH OF "SCREENED COMP MULCH" (SUCH AS, PACIFIC TOPSOIL'S SCREENED COMP MULCH) AS A TOPDRESSING IN SHRUB BEDS, TYP.
- PLANTS TO MEET REQUIREMENTS FOR INTEGRATED RESTORATION & PERMITTING PROGRAM: 2 TREES FROM APPENDIX D, IRPP PLANT LIST REQUIRED. 2 TREES PROVIDED 2 DIFFERENT SHRUB SPECIES FROM APPENDIX D, IRPP PLANT LIST REQUIRED. 2 SHRUB SPECIES REQUIRED 1,000 SF OF BUFFER PLANTING REQUIRED, 1,463 SF PROVIDED, WIDTH OF PLANTING STRIP CAN BE NO LESS THAN 5'-0".

PROPOSED TREE REMOVAL IN 125' SHORELINE SETBACK

TREE NUMBERS BASED ON THE ARBORIST'S REPORT & MAP, ROBERT W. WILLIAMS & ASSOCIATES CONSULTING ARBORISTS DATED 5/22/17.

NO.	SPECIES	DBH
66	FIR	10"

PROPOSED TREE REPLACEMENT IN 125' SHORELINE SETBACK

QTY.	BOTANICAL/COMMON NAME	SIZE/SPACING
1	TSUGA MERTENSIANA MOUNTAIN HEMLOCK	6" HT. MIN.
2	SALIX LASIANDRA PACIFIC WILLOW	6" HT. MIN.

TREES REQUIRED = 1
 TREES PROVIDED = 3
 EVERGREEN TREES REMOVED = 1
 DECIDUOUS TREES REMOVED = 0
 240 SF OF NATIVE RIPARIAN VEGETATION REQUIRED
 + 350 SF OF NATIVE RIPARIAN VEGETATION PROVIDED

PROPOSED TREE REMOVAL IN 125'-200' SHORELINE JURISDICTION

TREE NUMBERS BASED ON THE ARBORIST'S REPORT & MAP, ROBERT W. WILLIAMS & ASSOCIATES CONSULTING ARBORISTS DATED 5/22/17.

NO.	SPECIES	DBH
62	CHERRY	18"
63	HAWTHORN	10"
64	COTTONWOOD	20"
65	FIR	10"



REVISIONS	DATE	BY	LG
01	08.22.2018		LG
02	10.05.2018		LG
03	05.20.2019		LA

SCJ STUDIO
 LANDSCAPE ARCHITECTURE

1148 NW LEARY WAY, SEATTLE, WA 98107
 SCJSTUDIO.COM

PLANTING PLAN

Medina Vineyard Trust
 1226 Evergreen Point Road
 Seattle, WA 98105

PERMIT SET
 NOT FOR
 CONSTRUCTION

DESIGNER: MG
 DRAWN BY: LG
 APPROVED BY: MG
 DATE: JULY, 2018
 JOB No: 2578
 DRAWING FILE No:
 DRAWING No: LA2.2
 SHEET No: 4 OF 05



CITY OF MEDINA
DEVELOPMENT SERVICES
 425-233-6414
 425-233-6400

Administrative Tree Activity Permit

Example 6
Attachment F

T-01

Instructions: Complete this form for the following:

- The property is designated as under development (MMC 20.52.100)
- Removal of any significant tree on private property having a 6-inch DBH and larger size that is not a legacy tree
- Removal of any non-significant tree on private property within 200 feet of the shoreline having a 6-inch DBH and larger size that is not a legacy tree
- Removal of a hazard tree from the city right-of-way

<input checked="" type="checkbox"/> New Application <input type="checkbox"/> Supplemental	Staff Only	Date Received: 1-29-20	By:	Permit No. Tree-20-008
Property Information				
Property Address: 2626 78th Ave NE			Check if tree is:	
Tax Parcel No. 326230-0840			<input type="checkbox"/> Within 200 feet of shoreline <input type="checkbox"/> Within a critical area (Ch. 18.12 MMC)	
Legal Property Owner Information				



Instructions: Complete and attach this form to T-01 for the following:

- The property is designated as under development pursuant to MMC 20.52.100
- The applicant is using the tree performance standards in MMC 20.52.130

File No.
 New
 Revision

STEP 1: Inventory existing tree units Conduct an inventory of all significant trees within the boundaries of the lot.

No.	Tree	DBH	No.	Tree	DBH
1	(#390) Western Red Cedar	10	7	(#797) Grand fir	29
2	(#391) Douglas fir	17	8	(#798) Douglas fir	26
3	(#392) Douglas fir	15	9	(#799) Douglas fir	17
4	(#394) Douglas fir	16	10	(#800) Douglas fir	38
5	(#795) Douglas fir	39	11		
6	(#796) Douglas fir	33	12		

STEP 2: Calculate Existing Tree Units From Table 20.52.130(C): add together the number of significant trees in each range below and multiply by the corresponding value to produce Existing Tree Units.

A.	Total number of trees at least 6 inches, but less than 10 inches DBH	0	X 0.75 =	0	D. TOTAL EXISTING TREE UNITS (A + B + C) 10
B.	Total number of trees 10 inches DBH and larger	10	X 1.00 =	10	
C.	Total number of conifer trees 50 inches DBH and larger	0	X 1.25 =	0	

STEP 3: Inventory removed trees List the significant trees that are proposed for removal. This information will be used in Step 4 and 7 (if applicable).

No.	Tree	DBH	No.	Tree	DBH
394	Douglas fir	16	798	Douglas fir	26
795	"	39	799	"	17
796	"	33	800	"	38
797	"	29			

STEP 4: Calculate Net Existing Tree Units To calculate Net Existing Tree Units, add together the number of significant trees in each range below that are proposed for removal and multiply by the corresponding value. Then follow H and I.

E.	Total number of trees removed at least 6 inches, but less than 10 inches DBH	0	X 0.75 =		H. TOTAL TREE UNITS TO BE REMOVED (E + F + G) 7
F.	Total number of trees removed 10 inches DBH and larger	7	X 1.00 =	7	
G.	Total number of conifer trees 50 inches DBH and larger	0	X 1.25 =	0	

STEP 5: Calculate Required Tree Units To calculate Required Tree Units, perform the calculations in J through M.

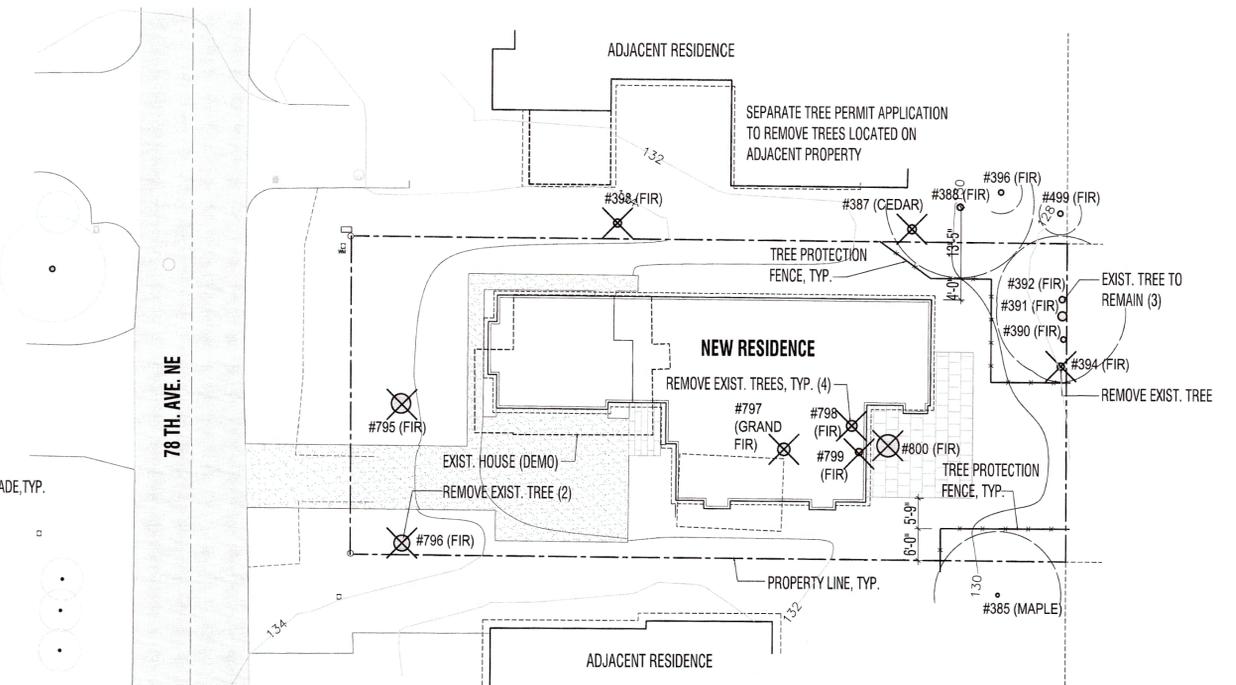
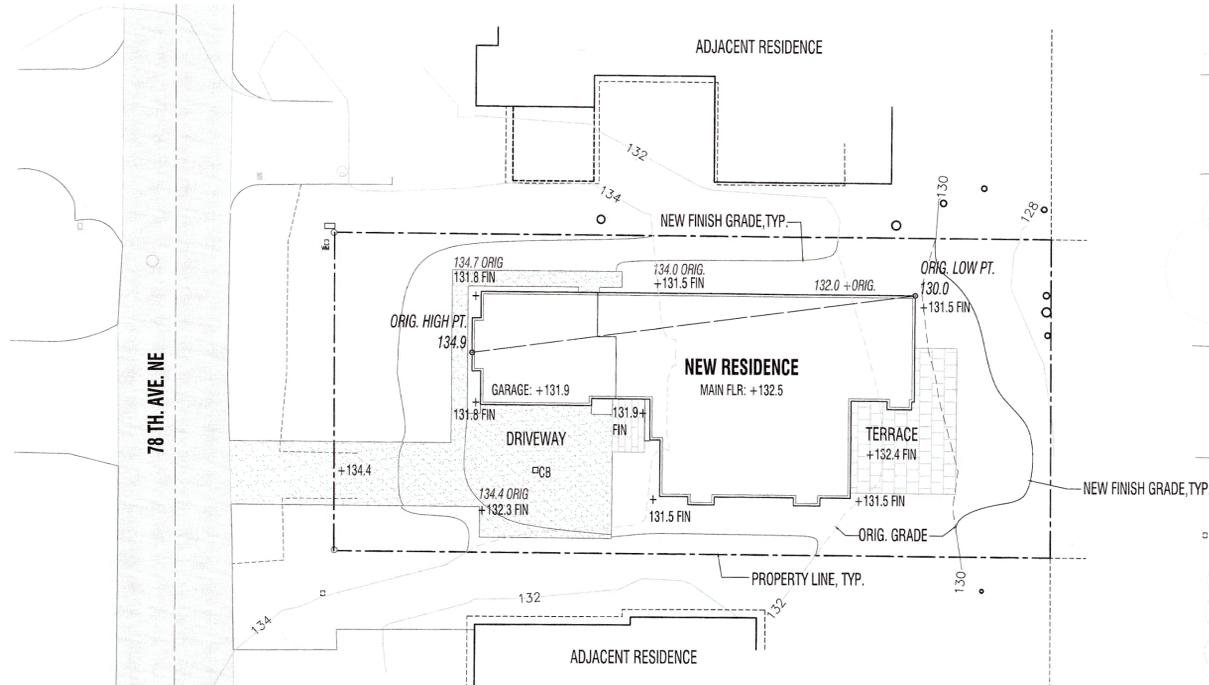
Lot Area (sq. ft.)		Divide J by 1,000		Tree Density Ratio (check one)		M. REQUIRED TREE UNITS (Multiply K x L)	(round up) 3
J.	8120	K.	8.12	L.	<input checked="" type="checkbox"/> 0.35 (residential) <input type="checkbox"/> Table 20.52.130.B		

STEP 6: Determine if Supplemental Trees are required Subtract the Tree Units in M from the Tree Units in I.
 • If the difference is zero or a positive number - stop. No supplemental trees are required.
 • If the difference is a negative number then go to Step 7.

N.
0

See Page 2 for Step 7 and for additional inventory tables

Example 6



1. HEIGHT CALC.

2. TREE RETENTION PLAN

TREE DENSITY CALCULATIONS	
Total number of significant trees	10
Total number of retained trees proposed	3
Total number of tree credits	10
Total number of retained tree credits proposed	3
Required tree density: 8120/1000 = 8.12*.35	3
Required mitigation	0

Approved Medina Tree Activity Permit Plan
07/30/2020
Tom Early
Medina Tree Consultant

ONSITE TREES																	
1	2	3	4	5	6	7	8	9	10		11				12		
									Proposed Action	CRZ/TPZ/LOD	Radius in feet					Tree credits	Retained tree credits
#	Tree Tag #	Species ID	DBH (in)	Adj. DBH (in)	Drip-line radius (ft)	Wind-firm	OK in grove	Health	Defects/Comments	Ret	Remove	N	W	E	S		
1	390	Western red cedar	10	10	8			OK	Suppressed canopy, typical of species	1		8	8	8	8	1	1
2	391	Douglas fir	17	17	12		Y	Fair	Self-corrected lean towards west, racoon poop @ base, dead wood, broken branches, asymmetric canopy towards east, typical of species	1		12	12	12	12	1	1
3	392	Douglas fir	15	15	12		Y	Fair	Previous top loss, asymmetric canopy towards east, low live crown ratio < 30%	1		12	12	12	12	1	1
4	394	Douglas fir	16	16	10			Poor	Velvet top conk @ root crown towards north, popping bark, previous top loss, dead wood, self-corrected lean towards north	1		10	10	10	10	1	
5	795	Douglas fir	39	39	27			OK	Abnormal bark, shedding bark, popping bark, carpenter ants bark only, woodpecker activity, previous wound calloused @ 25', slight lean towards north, vertical crack @ 3' up to 15', previous top loss? Elongated branches, exposed roots		1	27	27	27	27	1	
6	796	Douglas fir	33	33	18			OK	Co-dominant leaders with included bark x2 @ 60', typical of species, carpenter ants bark only, woodpecker activity		1	18	18	18	18	1	
7	797	Grand fir	29	29	21			OK	Typical of species		1	21	21	21	21	0	
8	798	Douglas fir	26	26	21			Fair	Free flowing sap, fill over crown, elongated branches, red ring rot, no taper, asymmetric canopy towards northwest, carpenter ants bark only, woodpecker activity, vertical crack @ root crown up to 3' towards north		1	21	21	21	21	0	
9	799	Douglas fir	17	17	15			Fair	Red ring rot, co-dominant canopy, low live crown ratio < 30%	1		15	15	15	15	0	
10	800	Douglas fir	38	38	22			Fair	Co-dominant leaders with included bark x2 @ 10', bulge @ root crown up to 3' towards south, free flowing sap, dead wood, broken branches, poor pruning with decay	1		22	22	22	22	1	

ROW AND OFFSITE TREES															
1	2	3	4	5	6	7	8	9	10		11				12
									Proposed Action	CRZ/TPZ/LOD	Radius in feet				
#	Tree Tag #	Species ID	DBH (in)	Adj. DBH (in)	Drip-line radius (ft)	Wind-firm	OK in grove	Health	Defects/Comments	Ret	Remove	N	W	E	S
1	387	Western red cedar	16	16	15			OK	Tag on fence, poor pruning with decay, lean towards west, thin canopy, typical of species	1		15	15	15	15
2	388	Douglas fir	13	13	6			OK	Tag on fence, low live crown ratio < 30%, previous top loss? Typical of species	1		6	6	6	6
3	396	Douglas fir	10	10	4		Y	Fair	Tag on fence, thin canopy, previous top loss, low live crown ratio < 20%, co-dominant canopy	1		4	4	4	4
4	499	Douglas fir	13	13	4		Y	OK	Tag on fence, asymmetric canopy towards east, thin canopy, dead wood, broken branches, typical of species	1		4	4	4	4
5	398	Douglas fir	18	18	15			OK	Abnormal bark, shedding bark, carpenter ants bark only, thin canopy, low live crown ratio < 30%, no taper, typical of species	1		15	15	15	15
6	385	Japanese maple	14	14	12			Good	Tag on fence, moss and lichen, typical of species	1		12	12	12	12

SANDALL NORRIE ARCHITECTS

603 STEWART STREET, # 711 SEATTLE, WASHINGTON 98101
dave@sandallnorrie.com 206.343.9538



PROJECT: **2626 RESIDENCE**
2626 78TH AVENUE NE, MEDINA, WA



ISSUE INFORMATION:	
DESCRIPTION:	PERMIT
ISSUE DATE:	12-10-2019
REVISION INFORMATION:	
NO. DESCRIPTION:	DATE:
1 PRELIM PERMIT	12-10-2019
NO. DESCRIPTION:	DATE:

SCALE: 1/16" = 1'-0"
TITLE: **SITE PLAN**
SHEET No: **A2.2**
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Tree Appraisal and the Value of Trees

Author

Lindsey Purcell

RCA, BCMA

Urban Forestry Specialist,
 Purdue University Department
 of Forestry & Natural Resources

Contributor

Jeffrey Ling

RCA, TPAQ

Arborwise

Trees provide many benefits and great value to property owners in functional, aesthetic, social, environmental, and even economic ways.

Functional benefits include mitigating climate change by storing carbon, removing pollution from the atmosphere, managing stormwater runoff, and improving air quality. Trees provide oxygen and many other benefits — such as shade, which can impact home cooling costs.

The collective value of trees makes a difference in people's health and quality of life in cities and towns everywhere. In fact, it is also possible to calculate the benefits provided by each individual tree in any landscape by visiting the MyTree website at <https://mytree.itreetools.org/>.

What is the value or worth of a tree?

Value may be defined as the monetary worth of an item at a given time with the expectation of benefit. A dollar figure in a formal tree appraisal, which provides an estimate or approximate value, can quantify many of these benefits. However, a tree's

true worth may be judged by a sale or, in litigious situations, a court ruling.

The valuation of trees and living landscape components requires training, expertise, and experience. Just like any real estate or professional appraiser, plant appraisers have the responsibility of assigning values and preparing to defend, explain, and support their results.

If you are pursuing tree valuation, you should retain the services of a qualified consulting arborist who can properly apply methods and techniques that best relate to your situation.

Three methods used to appraise trees and landscapes — Cost Approach, Income Approach, and Sales Comparison Approach — are described in the *Guide for Plant Appraisal*, 10th edition. Authored by the Council of Tree and Landscape Appraisers (CTLA), published by the International Society of Arboriculture, and endorsed by the major arboriculture and horticulture organizations, this guide represents a critical resource for sound plant valuation.



Evaluation of the structural integrity and overall health of trees is an important component of the appraisal process.



Determine the functional limitations of the tree and its interaction with site elements.

Why should a tree be appraised?

Tree appraisal assigns monetary importance to any tree on a site that is indicative of the tree's contribution to the site, especially when construction may affect plants on the property. Basically, an appraisal constitutes developing an opinion of value or cost of a site's landscape elements. An appraisal's purpose is defined by a client's needs, which may include unexpected losses, tort claims, insurance claims, tax deductions, real estate assessment, and proactive planning.

The best time to conduct an appraisal is prior to any incident with, or damage to, a tree. However, most appraisals occur *after* a tree has been removed or damaged. Such situations require additional investigation and might include a determination of pre-casualty value or comparative sampling on a local basis. Provided they are available, previous site records, tree assessments, site reviews, and even witnesses can help determine a tree's pre-damage condition.

After gathering every relevant fact, the appraiser determines the appropriate method of appraisal and provides an unbiased valuation. The appraiser should document all activities related to this process, from initiating client contact and establishing a tree's background information to inspecting a site, collecting data, and formulating a reasonable and defensible value.

One technique outlined in the *Guide for Plant Appraisal* is the Trunk Formula Technique (TFT), which appraises larger trees in the landscape within the Cost Approach. Used by professional appraisers, this technique extrapolates costs to purchase the largest commonly available nursery tree relative to the size of the appraised tree. This means the costs of a nursery tree can be proportionally increased to infer the cost of a larger tree. Small trees being appraised, less than 4 caliper inches or an 8-foot conifer, would be figured at retail cost.

The value based on the TFT application is a calculation generated by using unit tree costs. The unit tree costs required for this formula must be obtained either from local resources as determined by the consulting arborist or collected by the Regional Plant Appraisal Committee (RPAC). The RPAC is comprised of industry experts who are typically associated with their local chapter of the International Society of Arboriculture. This committee gathers data based on statewide information to determine unit costs for commonly available trees, the trees' obtainability, and their functional limitation in your area.



There may be external limitations outside the tree owner's control — such as the site location — that can affect tree value.

RPAC information and data is a baseline for species; it is the responsibility of the appraiser to determine tree species ratings and wholesale values based on availability in a region.

Ratings for common Indiana tree species can be found at the Indiana Arborist Association website (www.indianaarborist.org). Statewide surveys have determined that for the computations needed for cost techniques, the largest commonly available, transplanted deciduous tree would be 3.5 caliper inches with a unit tree cost of \$37.67.

Calculating a tree's value using the TFT begins with multiplying the cross-sectional area of the tree by the unit tree cost. To determine a tree's cross-sectional area, you must first calculate the tree's diameter at breast height (DBH). DBH is measured using a special diameter-measuring tape wrapped around the tree at 4.5 feet above the ground. In lieu of the special measuring tape, regular measuring tape can be used to determine circumference and that number divided by 3.14 to calculate DBH. Once the diameter is determined, divide by 2 to get the radius. Multiplying that number by the unit tree cost will then provide the overall basic cost.

For example: If a tree has a diameter of 20 inches, the computation would be $10 \times 10 \times 3.14$ — equaling 314 inches. Multiplying 314 by a unit cost of \$37.67 equals \$11,828, which is the overall basic cost. However, this is not necessarily the “value” of the tree. Additional factors will affect a tree's value, which is why a professional appraiser is recommended for an accurate value.



A diameter tape aids in calculating tree size.

Factors in Appraisals

Depreciation

Accurate appraisal values will reflect the application of depreciation factors. Professional appraisers use depreciation in their valuation process to justify differences in a new, “perfect” tree compared to the appraised tree. This will account for less-than-ideal tree characteristics, placement in the landscape, or the site it occupies. The three depreciation factors or variables include actual condition of the tree, functional limitations, and external limitations.

Condition

As it relates to a depreciation factor in tree valuation, “condition” refers to the assessment of overall tree health. Professional appraisers will assess a tree's vigor, looking for

the presence of pest issues and any stress symptoms. They also will consider the tree's structure and form — reviewing branch habits to determine if there is a strong, stable structure with good branch attachments and spacing and if the tree has a good form for its species. Each species has a typical genetic form, or “normal” traits, representative of its species. However, most trees are not normal or typical. See Table 1 for more information on rating the condition.

Functional limitations

Functional limitations applied as depreciation factors in tree valuation are primarily associated with the tree itself or the site on which it's located. These are factors that may limit future growth, development, and overall health. Site conditions and placement, such as proximity to utility lines, could limit full development due to necessary pruning for clearance. Professional appraisers will investigate any genetic limitations related to the genus and species itself. These include naturally poor branch systems, susceptibility to pests, or invasive tendencies as examples that would depreciate a tree's value.

External limitations

External limitations applied as depreciation factors in tree valuation include issues outside the control of the tree's owner that may affect sustainability, structure health, or tree form. One example of external limitations would be environmental circumstances such as water availability, issues with threats from pests, or utility vegetation management concerns where there are impending conflicts between power lines and a tree. Additionally, local ordinances, easements, or rights of ways may be factors that affect life expectancy.

When applying depreciation factors toward overall basic cost, a professional appraiser will assign a rating to each of these three depreciation categories: condition, functional limitations, and external limitations. The overall basic cost is multiplied by the determined value in each of these three categories to estimate the depreciated cost — the final functional reproduction value using the Trunk Formula Technique.



Properly placed trees can add value to your home and property.

The Trunk Formula Technique is only one method to appraise large trees. It is important to realize that estimates of a tree's value may not be proportionate to the value of a property or what would actually be paid for a tree. Studies estimate that trees may account for up to 15% of a residential property's value. Much lower values could result, given such other circumstances and factors as location.

For example: An ideal, mature sugar maple with a 24-inch diameter at breast height may be valued at more than \$15,000, but the home it resides next to may be worth \$35,000. This is an unrealistic tree value that is not reasonable in any professional appraisal situation. Legitimate appraisal values should be reasonable and defensible; this requires a knowledgeable, professional consulting arborist.

Tree Appraisal Scenario

Let's put the Trunk Formula Technique to work with an example for a typical suburban landscape.

Example

A residential site in an Indiana neighborhood has a sugar maple (*Acer saccharum*) on the front lawn, shading the front of the home. Measuring 14 inches at breast height, the tree is in good condition and in a proper location. The tree's owners wish to have it appraised to determine the value of the tree on their property.

The appraisal calculation method would be as follows:

1. Basic Reproduction Cost = CSA x UTC
CSA = Cross-sectional area of the subject tree
UTC = Unit tree cost, determined by the Regional Plant Appraisal Committee (RPAC) or local wholesale cost
2. Depreciated Reproduction Cost = CR x F x E x BRC
CR = Condition rating
F = Functional limitations rating
E = External limitations rating
BRC = Basic reproduction cost
3. Total Additional Costs = cleanup, installation, maintenance
These other costs would be included if there is a loss that requires the removal of a tree and the installation of a new tree, along with post-planting care costs for a determined time.
4. Total Reproduction Cost = DRC + TAC
DRC = Depreciated Reproduction Cost
TAC = Total Additional Costs
5. Appraisal Value = Total Reproduction Cost rounded to the nearest thousand.



Tree appraisals must be reasonable and defensible.

Now, back to our example using the steps above:

1. Basic Reproduction Cost: $154'' \text{ CSA} \times \$37.67 \text{ UTC} = \$5,801$
2. Depreciated Reproduction Cost: $1.0 \text{ CR} \times .80 \text{ F} \times 1.0 \text{ E} \times \$5,801 \text{ BRC} = \$4,640$
3. Total Additional Costs: \$0 (not applicable in this example)
4. Total Reproduction Cost: $\$4,640 \text{ DRC} + \$0 \text{ TAC} = \$4,640$
5. Appraisal Value: \$5,000 (TRC rounded to the nearest thousand)

Following the calculated steps, the reproduction value of the tree would be \$5,000.

This value is the reproduction cost of the tree if it were destroyed or lost. In other words, it is the cost to replace a tree with an exact replica.

As mentioned: Dependent upon appraisal situations, there are other approaches, methods, and techniques beyond the Trunk Formula Technique used to estimate costs and tree values. These alternative means may be found in the *Guide*

for *Plant Appraisal*, 10th edition. Arboricultural consultants should utilize the guide as a resource to develop a professional work product.

Summary and Resources

Tree appraisal is a professional service provided by consulting arborists. An appraiser may assume the role of mediator, arbitrator, consulting expert, or expert witness. In many situations, an appraisal might be disputed in a lawsuit. An appraiser should maintain professional liability insurance for litigation cost protection. This publication is for educational purposes only to provide an awareness of tree value. When an *expert* opinion is necessary — as for an insurance or legal claim — it is highly recommended that a tree owner consult with a professional arborist trained in current appraisal methodology.

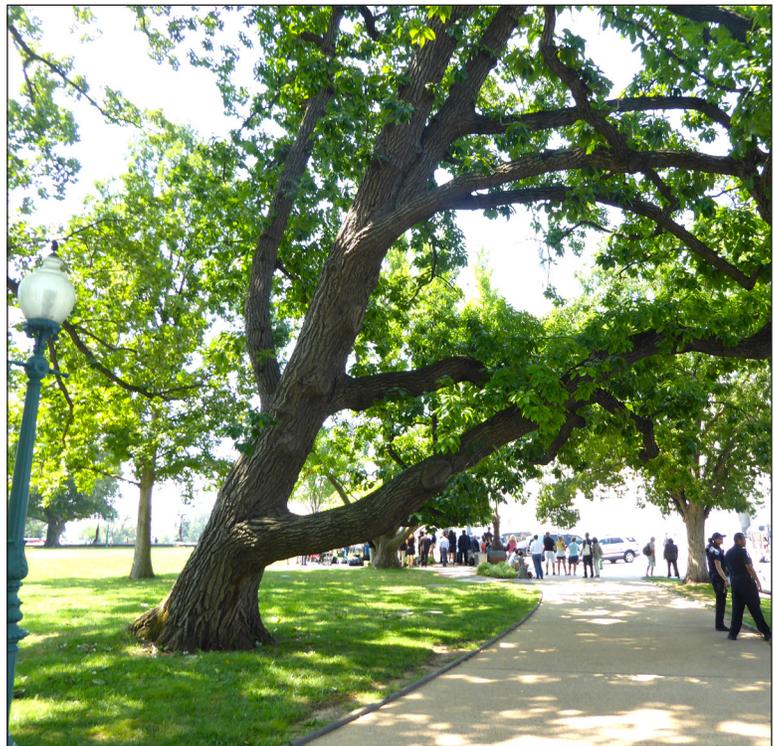
For a list of professional arborists, consult the following online resources:

American Society of Consulting Arborists, Registered Consulting Arborist: <https://www.asca-consultants.org/default.aspx>

International Society of Arboriculture, Certified Arborist: <https://www.treesaregood.org/findanarborist>



Depreciation can be significant where overhead utilities are present.



Tree condition and form play a major role in depreciation of plant value.

Table 1. Condition Rating for Landscape Trees

This table is a general representation to assist in formula values. The tree condition ratings described below encompass factors of a tree's health, form, and above- and below-ground structure. Each tree can have any combination of the following health or structural issues, as well as others not mentioned. The expression of symptoms and signs is subjective. The appraiser should consider individual tree species characteristics and use existing circumstances as a reasonable scale to determine a tree's condition.

Condition	Tree Structure	Tree Health	Tree Form	Formula Values
<i>Rating</i>	<i>Consider root condition/formation, trunk condition, and branch assembly and arrangement.</i>	<i>Consider crown indicators — including vigor, density, leaf size, quality, and stem shoot extensions.</i>	<i>Consider the general shape and overall form.</i>	
Excellent	Root plate undisturbed and clear of any obstructions. Trunk flare has normal development. No visible trunk defects or cavities. Branch spacing/structure and attachments are free of any defects.	Perfect specimen with excellent form and vigor, along with a well-balanced crown. Trunk is sound and solid. No apparent pest problems. Normal to exceeding shoot length on new growth. Normal leaf size and color. Exceptional life expectancy for the species.	Ideal tree for that species, including shape and canopy symmetry, health, and density. Outstanding function on the site or location.	1.0-.90
Good	Root plate appears normal, with only minor damage. Possible signs of root dysfunction around trunk flare. Minor trunk defects from previous injury, with good closure and less than 25% of bark section missing. Good branch habit; minor dieback with some signs of previous pruning. Co-dominant stem formation may be present, requiring minor corrections.	Imperfect canopy density in 10% or less of the tree. Lacks natural symmetry. Less than half the normal growth rate and minor deficiency in leaf development. Few pest issues or damage, and controllable if present. Normal branch and stem development with healthy growth. Typical life expectancy for the species.	Nearly ideal tree for that species, including shape and canopy symmetry, health, and density. Functions well on the site or location.	.90-.75
Fair	Root plate reveals previous damage or disturbance. Dysfunctional roots may be visible around the main stem. Evidence of trunk damage or cavities, with decay or defects present and less than 30% of bark sections missing on trunk. Co-dominant stems are present. Branching habit and attachments indicate poor pruning or damage, which requires moderate corrections.	Crown decline and dieback up to 30% of the canopy. Poor overall symmetry. Leaf size smaller and color somewhat chlorotic. Shoot extensions indicate some stunting and stressed growing conditions. Obvious signs of pest problems contribute to a lesser condition. Some decay areas found in the main stem and branches. Below-average life expectancy for the species.	Acceptable tree for that species. Tree shape and symmetry are adequate, with some substantial asymmetry in shape and canopy form. May have considerable concerns for its use and function on the site or location.	.75-.50
Poor	Root plate disturbance and defects indicate major damage, with girdling roots around the trunk flare. Trunk reveals more than 50% of bark section missing. Branch structure has poor attachments, with several structurally important branches dead or broken. Canopy reveals signs of damage or previous topping or lion-tailing, with major corrective action required.	Lacking a full crown, with more than 50% decline and dieback that especially affects larger branches. Stunting obvious, with little evidence of growth on smaller stems. Leaf size and color reveals overall stress in the plant. Insect or disease infestation may be severe. Extensive decay or hollow characteristics. Low life expectancy for the species.	Poor tree for that species. Highly irregular canopy shape and undesirable form make it unattractive and dysfunctional on the site or location.	.50-.30
Very Poor	Severe damage within the root plate and root collar exhibits major defects that could lead to tree death or failure. A majority of the bark or trunk is affected, either decayed or missing. Branching is extremely poor or severely topped, with severe dieback in canopy. Little or no opportunity for mitigation of any tree parts.	More than 70% of the canopy is in severe decline or dead. Canopy density is extremely low, with chlorotic and necrotic tissue dominating the canopy. Severe decay in the trunk and major branches. Root plate damage with a majority of roots damaged, diseased or missing. Very low life expectancy for the species.	Disagreeable tree for that species, with highly diminished function and aesthetic appeal on the site or location.	.30 -.10
Dead				.10 or less

Nov. 2019

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