

April 15, 2021

Mike Burke
NW Lifestyle Homes
via email: mike@nwlifestylehomes.com
(425) 417-7816

Re: Arborist Report

The Watershed Company Reference Number: 201107

Dear Mike:

We are pleased to present to you the findings of our tree inventory for the Houtchens Residence at 6024 SE 22nd Street in Mercer Island, WA (parcel #2439700110). ISA-Certified Arborists® Jake Robertson and Alexis Ochoa visited the property on March 25th, 2021 to inventory and assess trees located on the subject parcel and on adjacent parcels with driplines overhanging the subject parcel.

This report includes a summary of the site visit, and regulatory implications related to tree retention and removal. This information will help the project team understand the implications of removal of inventoried trees. The following documents are enclosed:

- Tree Inventory Table
- Tree Inventory Map

Study Area

The subject property is approximately 1.3 acres in size and is currently developed with a single-family home, driveway, and extensive landscape design. There are no identified Environmentally Sensitive Areas per King County iMap, though approximately half of the site is within 200' of Lake Washington making it within the Shoreline Jurisdiction. Single-family lots surround the subject parcel with Lake Washington as the northern boundary. The site is currently zoned for single-family residential use (R-15).



Figure 1. Defined extent of study area outlined in yellow. Images courtesy of King County iMap.

Methods

All Regulated Trees in the project area were identified and assessed in the field using a Level I Visual Assessment according to International Society of Arboriculture (ISA) standards to collect species, diameter, height, canopy radius, and condition. Per Mercer Island City Code (MICC) 19.16.010, a Regulated Tree is any tree with a diameter of 10 inches or more, and any tree that meets the definition of an exceptional tree. For this study, the health of regulated trees was depicted using a rating system of Excellent, Good, Fair, Poor, Severe, or Dead (Table 1).

In general, tree diameter was measured at four-and-a-half feet above the ground surface (diameter at breast height, or “DBH”) using a graduated metal logger’s DBH tape. Trees with multiple trunks arising from the ground were measured using methodology from *The Guide for Plant Appraisal, 10th Edition* (Council of Tree & Landscape Appraisers 2018). Briefly, the cross-sectional areas of stems contributing to the canopy were summed and used to generate a singular combined DBH for the tree. The singular DBH number allows for comparison to other single-stemmed trees and for more accurate permitting and tree retention calculations.

Each assessed tree was tagged with a 1.25-inch aluminum tag that was affixed to the south side of the tree at the base of the tree with a nail. Canopy radius is the average branch length from

the trunk as measured with a tape measure; tree height is a visual estimate. Regulated Trees located off parcel but with overhanging driplines were not physically tagged and assigned a digital identification number. Off parcel trees had their attributes visually estimated.

Table 1. Assessment of plant condition considers health, structure, and form. Each may be described in rating categories that will be translated into a percent rating. (CTLA 2018)

Rating Category	Condition Components			Percent Rating
	Health	Structure	Form	
Excellent - 1	High vigor and nearly perfect health with little or no twig dieback, discoloration, or defoliation.	Nearly ideal and free of defects.	Nearly ideal for the species. Generally symmetric. Consistent with the intended use.	81% to 100%
Good - 2	Vigor is normal for species. No significant damage due to diseases or pests. Any twig dieback, defoliation, or discoloration is minor.	Well-developed structure. Defects are minor and can be corrected.	Minor asymmetries/deviations from species norm. Mostly consistent with the intended use. Function and aesthetics are not compromised.	61% to 80%
Fair - 3	Reduced vigor. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Twig dieback, defoliation, discoloration, and/or dead branches may compromise up to 50% of the crown.	A single defect of a significant nature or multiple moderate defects. Defects are not practical to correct or would require multiple treatments over several years.	Major asymmetries/deviations from species norm and/or intended use. Function and/or aesthetics are compromised.	41% to 60%
Poor - 4	Unhealthy and declining in appearance. Poor vigor. Low foliage density and poor foliage color are present. Potentially fatal pest infestation. Extensive twig and/or branch dieback.	A single serious defect or multiple significant defects. Recent change in tree orientation. Observed structural problems cannot be corrected. Failure may occur at any time.	Largely asymmetric/abnormal. Detracts from intended use and/or aesthetics to a significant degree.	21% to 40%
Severe - 5	Poor vigor. Appears dying and in the last stages of life. Little live foliage.	Single or multiple severe defects. Failure is probable or imminent.	Visually unappealing. Provides little or no function in the landscape.	6% to 20%
Dead - 6				0% to 5%

Tree Inventory Results

A total of 97 trees were tagged and inventoried within the study area (see Enclosures) with the aluminum tag numbers #501 – #597. There were four off parcel trees with driplines overhanging the subject parcels with the identification numbers #200 - #203. Of these identified trees, 11 are deciduous and 90 are evergreen.

Regulated trees within the study area had an average DBH of 16.6-inches and an overall condition rating of “Fair” to “Poor”. Off parcel trees had an average DBH of 17.5-inches. A complete table of tree attribute data can be found in the enclosed *Tree Inventory Table*.

The largest inventoried regulated tree is a western red cedar (*Thuja plicata*, Tree #584) with a DBH of 45.4-inches, followed by a southern catalpa (*Catalpa bignonioides*, Tree #522) with a DBH of 39.5-inches. Western red cedar is the most common tree species with 50 individuals, followed by 18 Douglas-fir (*Pseudotsuga menziesii*) trees. Other common species are Japanese cedar (*Cryptomeria japonica*), Italian cypress (*Cupressus sempervirens*), and ponderosa pine (*Pinus ponderosa*) along with many others within this diverse landscape. A brief summary of all inventoried trees can be found in Table 2 below.

Table 2. Summary of inventoried tree species within the study area.

Scientific Name / Common Name	Number of Trees Inventoried	Avg. Trunk DBH (inches)	Smallest DBH (in)	Largest DBH (in)
<i>Acer circinatum</i> (Vine maple)	1	8	-	-
<i>Acer negundo</i> (Boxelder maple)	1	14	-	-
<i>Acer platanoides</i> (Norway maple)	1	19	-	-
<i>Catalpa bignonioides</i> (Southern catalpa)	1	40	-	-
<i>Chamaecyparis obtusa</i> (Hinoki falsecypress)	2	15.2	12.5	18
<i>Crataegus monogyna</i> (Common hawthorn)	2	13.7	11.5	15.8
<i>Cryptomeria japonica</i> (Japanese cedar)	7	14.5	10.3	20.3
<i>Cupressus sempervirens</i> (Italian cypress)	4	11.6	10.4	13.2
<i>Ficus carica</i> (Common fig)	2	12.4	8.2	16.5
<i>Larix occidentalis</i> (Western larch)	1	34	-	-
<i>Magnolia grandiflora</i> (Southern magnolia)	1	24	-	-
<i>Malus domestica</i> (Apple)	1	11	-	-
<i>Picea abies</i> (Norway spruce)	2	29	27.5	30.5
<i>Pinus ponderosa</i> (Ponderosa pine)	4	31.8	26.1	37

<i>Prunus sp.</i> (Flowering cherry species)	1	16	-	-
<i>Pseudotsuga menziesii</i> (Douglas-fir)	18	18.6	10.2	32.5
<i>Thuja plicata</i> (Western red cedar)	50	14.8	10	45.4
<i>Thuja plicata</i> 'Excelsa' (Excelsa western red cedar)	1	10	-	-
<i>Tsuga heterophylla</i> (Western hemlock)	1	14	-	-
Grand Total	101			

Mercer Island City Code Requirements

Mercer Island regulates tree activity under Mercer Island City Code (MICC) 19.10 – Trees. Exceptional trees are defined as a tree that is rare or exceptional given its size, species, condition, cultural/historical importance or contribution as part of a tree grove. Trees with a diameter or more than 36 inches (MICC 19.16.010 – Definitions), or with a diameter that is equal to or greater than the diameter listed in the Exceptional Tree Table in MICC 19.16.010. Specific on-site exceptional tree species and their threshold diameters is listed below in Table 3. A tree grove is defined by MICC 19.16.010 as a group of eight or more trees each 10 inches or more in diameter that form a continuous canopy. Mercer Island regulates trees within a grove the same as exceptional trees unless they meet the definition of a hazardous tree.

Species	Threshold Diameter (DBH)
Douglas-fir – <i>Pseudotsuga menziesii</i>	30 inches
Vine maple – <i>Acer circinatum</i>	8 inches
Southern magnolia– <i>Magnolia grandiflora</i>	16 inches
Western red cedar – <i>Thuja plicata</i>	30 inches
Ponderosa pine – <i>Pinus ponderosa</i>	30 inches
Western hemlock – <i>Tsuga heterophylla</i>	24 inches
Flowering cherry – <i>Prunus sp.</i>	23 inches

Table 3. On-Site Exceptional Tree Species and Their Threshold Diameters

Per the municipal code, there are eight exceptional trees (Tree #'s 501, 505, 522, 529, 539, 547, 575, & 584) that meet the size and/or species diameter threshold. Tree groves dominate the site as only nine trees (Tree #'s 203, 523, 536 – 538, 546, & 548 – 550) are not exceptional nor part of a grove. Tree pruning is exempt from permitting, replacement, retention, and protection provisions identified within this study.

Tree Removal Associated with Development – MICC 19.10.060

A minimum of 30 percent of regulated trees shall be retained over a rolling five-year period. With 97 on-site regulated trees, 29.1 (rounded to 30) trees need to be retained to comply with the code. The following trees shall be prioritized for retention:

- a. *Exceptional*
- b. *Trees with a diameter of more than 24 inches;*
- c. *Trees that have a greater likelihood of longevity; and*
- d. *Trees that are part of a healthy grove.*

Retention of exceptional trees shall be credited toward compliance with tree retention requirements. Removal of exceptional trees shall be limited to the those that meet the following circumstances:

- a. *Retention of an exceptional tree will result in an unavoidable hazardous situation; or*
- b. *Retention of an exceptional tree will limit the constructable gross floor area to less than 85 percent of the maximum gross floor area allowed under Chapter 19.02; or*
- c. *Retention of an exceptional tree will prevent creation of a residential lot through a subdivision or short subdivision that is otherwise allowed by this title.*

Tree Replacement – MICC 19.10.070

Removed trees shall have the following replacement ratio shown below in Table 4.

Diameter of Removed Tree	Number of Replacement Trees Required
Less than 10 inches	1
10 inches up to 24 inches	2
24 inches up to 26 inches	3
More than 36 inches and any exceptional tree (s)	6

Table 4. Tree replacement ratio.

Location of replacement trees shall be located in the following order of priority from most to least important.

- a. *On-site replacement adjacent to or within critical areas;*

- b. On-site replacement outside of critical areas adjacent to other retained trees making up a grove or stand of trees;*
- c. On-site replacement outside critical areas;*
- d. Off-site in adjacent public right-of-way where explicitly authorized by the city.*

Replacement tree species need to primarily be native to the Pacific Northwest. Determination of tree species will be selected by the property owner unless the city arborist determines that the selected species is unlikely to survive for a period of at least 10 years, represents a danger or nuisance, would threaten overhead or underground utilities, or would fail to provide adequate protection to any critical area.

Replacement coniferous trees shall be at least six feet tall, and replacement deciduous trees shall be at least one and one-half inches in caliper. The city arborist may authorize the planting of smaller-sized replacement trees if the applicant can demonstrate that smaller trees are more suited to the species, the site conditions, and neighborhood character.

If the city arborist determines there is insufficient area to replant on the site, the city arborist may authorize payment to a fee-in-lieu. Fees provided shall be determined upon tree replacement cost including labor, materials, and maintenance for each replacement tree as well as the most current Council of Tree and Landscaper Appraisers Guide for Plant Appraisal. Any fee-in-lieu is optional for the applicant and requires an explicit written agreement.

Impact Assessment

The following impact assessments were made based on the site plan from NW Lifestyle Homes dated February 25, 2021.

Impacted – Removed



Tree #521 is a large, 28-inch in diameter Norway spruce (*Picea abies*, Figure 2). Multiple design iterations explored the retention of this tree while minimizing design impacts within the drip line. However, this tree presently is infested with the spruce adelgid and exhibits extensive chlorotic foliage. If this tree were to be retained, the development stress in tandem with the existing known pathogen would likely result in this tree failing within 10 years post-construction. As a result, the proposed site plan has the main footprint of the new home at the location of this tree. This tree is part of the grove that runs along the western border of the property and is therefore classified as exceptional. Given its exceptional tree status, six replacement trees are required.

Figure 2. Norway spruce with discoloration and dieback within the canopy that will need to be removed prior to construction.



Trees #525 & 526 are a medium diameter Italian cypress (*Cupressus sempervirens*, Figure 3) trees. These trees are rooted within the main footprint of the new home design. These trees are in Fair condition with a canopy radius of two feet. This tree is not part of any grove nor classified as exceptional given its size. Four replacement trees are required following the removal of these two trees.

Figure 3. Italian cypress trees that are rooted within design footprint of the home.



Tree #527 is a medium, 19-inch in diameter Japanese cedar (*Cryptomeria japonica*, Figure 4). This tree is in Very Poor condition and would have minor impacts to its critical root zone when the footprint of the new home is excavated. Since the tree is already in such poor condition, it is likely that the impacts derived from construction would result in tree death which would then become a hazard for the new home. This tree is part of the grove that runs along the eastern border of the property and is therefore classified as exceptional. Given its exceptional tree status, six replacement trees are required.

Figure 4. Japanese cedar that is in declining health that would likely not survive the construction process.



Tree #536 is a small, 10-inch in diameter Excelsa western red cedar (*Thuja plicata* 'Excelsa', Figure 5). The trunk of this tree is rooted within the footprint of the new home design. This tree is not part of any grove nor classified as exceptional given its size. Two replacement trees are required following the removal of this tree.

Figure 5. Tree #536 is a small Excelsa western red cedar that will need to be removed prior to construction.



Tree #537 is a medium, 18-inch in diameter Hinoki falsecypress (*Chamaecyparis obtusa*, Figure 6). The entire tree is rooted within the footprint of the new home design. The tree is in Poor health with a canopy radius of 11-feet. This tree is not part of any grove nor classified as exceptional given its size. Two replacement trees are required following the removal of this tree.

Figure 6. This Hinoki falsecypress tree is rooted within the footprint of the new home design that would need to be removed.

Tree #538 is a small, 10-inch in diameter Italian cypress (*Cupressus sempervirens*). The entire tree is rooted within the footprint of the new home design. This tree is in Fair condition and has a canopy radius of two feet. This tree is not part of any grove nor classified as exceptional given its size. Two replacement trees are required following the removal of this tree.



Trees #'s 524 (*Prunus sp.*) & 502 (*P. menziesii*, Figure 7) are not going to be impacted by the construction of the home; however, they are in poor enough condition that warrants their removal. Tree #502 has been greatly affected by windstorms and many of the limbs have broken off and has left the remaining stem in poor structure. #524 is as cherry tree that only has one living leader within its canopy. Tree #502 is part of the western border tree grove and would require six replacement trees and Tree #524 is only a regulated tree and requires two replacement trees.

Figure 7. Tree #502 with severe storm damage.

Impacted – Retained

Tree #'s 515 (*Pseudotsuga menziesii*), 516 (*P. menziesii*), 520 (*P. menziesii*), 528 (*Picea aibes*), 200 (*P. menziesii*), and 201 (*Thuja plicata*) are proposed to receive some impacts to their critical roots from the construction phase. Off-site trees #200 and 201 are on the eastern adjacent parcel that will face minor root impacts. Tree #'s 515, 516, and 520 are rooted on the western border of the parcel that will have minor root impacts but will also require minor canopy pruning to a height of twenty-three feet to allow for the designed two-story single-family home. Although tree impacts are estimated to be minor, the recommended tree protection measures identified in the following section should be followed to improve the likelihood of survival.

Replacement Trees Needed

Per Mercer Island City Code (MICC 19.10.060(A)), a minimum of 30 percent of existing trees need to be retained during the construction process. To comply with the code, 29.1 (rounded to 30) trees need to be retained. With 90 existing trees planned for retention (92.7-percent), this project complies with the Cities tree retention requirements.

The City will require the client to provide replacement trees at a ratio that is dependent on the DBH of the removed trees. See Table 4 above. According to the site plan provided by NW Lifestyle Homes, seven regulated trees need to be removed and the size of these trees requires 30 total replacement trees.

Tree Protection Measures

To ensure the survival of the significant trees that will be marked for retention prior to construction, these industry standard best management practices should be followed:

- **Tree protection barriers:** A temporary enclosure erected around a tree to be protected at the boundary of the tree protection zone. Tree protection barriers should consist of 6-foot-high chain link fence with sign that states: "Tree Protection Area" on all sides of the fence. Protection barriers are to remain on-site until the director authorizes their removal.
- **Minimize root zone compaction:** A 6-inch layer of coarse mulch or woodchips is to be placed beneath the dripline of the protected trees. Mulch is to be kept 12-inches from the trunk.
- **Hand dig:** All excavation done within the dripline, or when roots are encountered smaller than 2-inches, should be done by hand or by using an air spade.

- **Minimize injury:** When tree roots must be removed, cut roots cleanly using a sharp saw or pruners. Do not rip or cut tree roots with heavy equipment.
- **Monitor construction:** An ISA-certified arborist should be present on-site during construction activities within the driplines of retained trees to monitor tree protection, assist with changes in the field, and document construction impacts.

Limitations of This Study

The findings of this report are based on the best available science and are limited to the scope, budget, and site conditions at the time of the assessment. Although the information in this report is based on sound methodology, internal structural flaws (such as cracking or root rot) or other conditions that are not visible cannot be detected with this limited basic visual screening. Trees are inherently unpredictable. Even vigorous and healthy trees can fail due to high winds, heavy snow, ice storms, or rain.

This report is based on the current observable conditions and may not represent future conditions of the trees. Any change in site condition, including clearing and grading, will alter the condition of remaining trees in a way that is not predictable. Remaining trees should be monitored for signs of stress, pathogens, and structural defects after clearing and home construction.

The conclusions contained within this report have been made for permitting purposes only. They are not intended for use by the property owner or adjacent homeowner to evaluate tree risk. Tree assessment related to occupant safety and safeguarding new structures or other targets must be done separately and after building has been completed. Please call if you have any questions or if we can provide you with any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jake Robertson', is placed over a light gray rectangular background.

Jake Robertson

ISA Certified Arborist® PN-8934A

Appendix A: Tree Inventory Table

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN)	HEIGHT (FT)	RADIUS (FT)	CONDITION	EXCEPTIONAL	GROVE	REMOVED	NOTES
200	Pseudotsuga menziesii (Douglas-fir)	E	1	24	80	21	Fair		Yes		Some surface roots present.
201	Thuja plicata (Western red cedar)	E	1	18	60	12	Good		Yes		
202	Thuja plicata (Western red cedar)	E	1	18	25	12	Fair		Yes		Self corrected lean.
203	Thuja plicata (Western red cedar)	E	1	10	30	5	Fair				
501	Pseudotsuga menziesii (Douglas-fir)	E	1	33	60	25	Fair	Yes	Yes		Large surface roots present with 8" diameter.
502	Pseudotsuga menziesii (Douglas-fir)	E	1	16	40	8	Poor		Yes		Storm damage with multiple broken leaders and branches.
503	Pseudotsuga menziesii (Douglas-fir)	E	1	10	45	9	Fair		Yes		
504	Acer platanoides (Norway maple)	D	1	19	35	12	Poor		Yes		Broken leaders in canopy. Canopy is mostly suckers.
505	Acer circinatum (Vine maple)	D	6	8	20	10	Fair	Yes	Yes		
506	Pseudotsuga menziesii (Douglas-fir)	E	1	20	65	15	Fair		Yes		Conflicts with sidewalk on wall side.
507	Malus domestica (Apple)	D	1	11	20	8	Poor		Yes		Mostly suckers, uneven canopy, leaning over grass.
508	Pseudotsuga menziesii (Douglas-fir)	E	1	17	80	20	Poor		Yes		Failed top, 3 leaders, sparse canopy.
509	Pseudotsuga menziesii (Douglas-fir)	E	1	16	70	14	Poor		Yes		Sparse canopy, surface roots exposed.
510	Pseudotsuga menziesii (Douglas-fir)	E	1	25	80	18	Fair		Yes		Surface roots extending into grass.
511	Pseudotsuga menziesii (Douglas-fir)	E	1	24	80	15	Fair		Yes		Surface roots into grass.
512	Pseudotsuga menziesii (Douglas-fir)	E	1	19	70	11	Fair		Yes		Suppressed, surface roots.
513	Pseudotsuga menziesii (Douglas-fir)	E	1	13	75	15	Fair		Yes		
514	Pseudotsuga menziesii (Douglas-fir)	E	1	23	80	12	Fair		Yes		Broken top with 3 leaders.
515	Pseudotsuga menziesii (Douglas-fir)	E	1	22	80	29	Fair		Yes		Broken top. Will need to be pruned to raise canopy for new house.
516	Pseudotsuga menziesii (Douglas-fir)	E	1	19	80	21	Fair		Yes		Broken top.
517	Pseudotsuga menziesii (Douglas-fir)	E	1	16	80	10	Fair		Yes		Asymmetrical canopy. Surface roots present.
518	Pseudotsuga menziesii (Douglas-fir)	E	1	15	50	22	Fair		Yes		
519	Pseudotsuga menziesii (Douglas-fir)	E	1	12	55	17	Fair		Yes		Sparse canopy.
520	Pseudotsuga menziesii (Douglas-fir)	E	1	15	80	16	Fair		Yes		Broken top.
521	Picea abies (Norway spruce)	E	1	28	85	20	Very Poor		Yes	Yes	Spruce adelgid infestation resulting in chlorotic foliage.
522	Catalpa bignonioides (Southern catalpa)	D	1	40	40	23	Good	Yes			Minor surface roots. Large pruning cuts are healing well.
523	Ficus carica (Common fig)	D	1	17	15	7	Fair				
524	Prunus sp. (Cherry species)	D	4	16	15	6	Very Poor		Yes		Only 1 living leader.
525	Cupressus sempervirens (Italian cypress)	E	1	12	45	2	Fair		Yes	Yes	Co-dominant at 5 ft.
526	Cupressus sempervirens (Italian cypress)	E	1	11	45	2	Fair		Yes	Yes	
527	Cryptomeria japonica (Japanese cedar)	E	2	19	45	11	Very Poor		Yes	Yes	Included bark at union.
528	Picea abies (Norway spruce)	E	1	31	90	22	Fair		Yes		
529	Pinus ponderosa (Ponderosa pine)	E	1	37	90	23	Fair	Yes	Yes		Co-dominant at 25 ft.
530	Cryptomeria japonica (Japanese cedar)	E	1	20	50	20	Fair		Yes		
531	Thuja plicata (Western red cedar)	E	3	13	50	8	Fair		Yes		
532	Thuja plicata (Western red cedar)	E	1	11	50	8	Fair		Yes		

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN)	HEIGHT (FT)	RADIUS (FT)	CONDITION	EXCEPTIONAL	GROVE	REMOVED	NOTES
533	Thuja plicata (Western red cedar)	E	3	12	50	10	Fair		Yes		
534	Thuja plicata (Western red cedar)	E	3	16	50	10	Fair		Yes		
535	Thuja plicata (Western red cedar)	E	1	19	50	10	Fair		Yes		Co-dominant at 5 ft.
536	Thuja plicata 'Excelsa' (Excelsa Western red cedar)	E	1	10	15	7	Fair			Yes	
537	Chamaecyparis obtusa (Hinoki falsecypress)	E	1	18	15	11	Poor			Yes	
538	Cupressus sempervirens (Italian cypress)	E	2	10	50	2	Fair			Yes	
539	Magnolia grandiflora (Southern magnolia)	E	2	24	45	20	Good	Yes			Close to retaining wall.
540	Cryptomeria japonica (Japanese cedar)	E	1	14	45	10	Poor		Yes		Asymmetrical canopy.
541	Cryptomeria japonica (Japanese cedar)	E	1	15	45	8	Poor		Yes		
542	Cryptomeria japonica (Japanese cedar)	E	2	12	45	8	Poor		Yes		
543	Cryptomeria japonica (Japanese cedar)	E	3	10	45	8	Poor		Yes		
544	Pinus ponderosa (Ponderosa pine)	E	1	32	100	25	Fair		Yes		
545	Larix occidentalis (Western larch)	D	1	34	90	18	Fair		Yes		
546	Acer negundo (Boxelder maple)	D	1	14	30	10	Poor				
547	Pinus ponderosa (Ponderosa pine)	E	1	32	110	21	Fair	Yes			
548	Pinus ponderosa (Ponderosa pine)	E	1	26	110	21	Fair				
549	Chamaecyparis obtusa (Hinoki falsecypress)	E	1	13	45	12	Fair				
550	Cupressus sempervirens (Italian cypress)	E	1	13	40	3	Fair				
551	Thuja plicata (Western red cedar)	E	1	14	25	5	Very Poor		Yes		Self corrected lean.
552	Thuja plicata (Western red cedar)	E	1	12	40	6	Poor		Yes		Self corrected lean.
553	Thuja plicata (Western red cedar)	E	1	10	40	6	Poor		Yes		Self corrected lean.
554	Thuja plicata (Western red cedar)	E	1	11	40	10	Poor		Yes		Self corrected lean.
555	Thuja plicata (Western red cedar)	E	1	12	40	8	Poor		Yes		Self corrected lean.
556	Thuja plicata (Western red cedar)	E	1	12	40	8	Poor		Yes		Self corrected lean.
557	Thuja plicata (Western red cedar)	E	1	11	60	8	Poor		Yes		Self corrected lean.
558	Thuja plicata (Western red cedar)	E	1	13	40	8	Poor		Yes		Self corrected lean.
559	Thuja plicata (Western red cedar)	E	1	13	40	9	Poor		Yes		Broken top. Leaning to adjacent parcel.
560	Thuja plicata (Western red cedar)	E	1	14	40	10	Poor		Yes		Self corrected lean.
561	Thuja plicata (Western red cedar)	E	1	15	40	11	Poor		Yes		Lean to adjacent parcel.
562	Thuja plicata (Western red cedar)	E	1	15	35	9	Poor		Yes		Self corrected lean.
563	Thuja plicata (Western red cedar)	E	1	14	40	8	Poor		Yes		Self corrected lean.
564	Thuja plicata (Western red cedar)	E	1	15	35	9	Poor		Yes		Self corrected lean.
565	Thuja plicata (Western red cedar)	E	1	15	40	8	Poor		Yes		Self corrected lean.
566	Thuja plicata (Western red cedar)	E	1	13	35	6	Poor		Yes		Self corrected lean.
567	Thuja plicata (Western red cedar)	E	1	13	40	7	Poor		Yes		Self corrected lean.
568	Thuja plicata (Western red cedar)	E	1	12	40	5	Poor		Yes		Self corrected lean.

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN)	HEIGHT (FT)	RADIUS (FT)	CONDITION	EXCEPTIONAL	GROVE	REMOVED	NOTES
569	Thuja plicata (Western red cedar)	E	1	13	35	6	Poor		Yes		Self corrected lean.
570	Thuja plicata (Western red cedar)	E	1	15	40	9	Poor		Yes		Self corrected lean.
571	Thuja plicata (Western red cedar)	E	1	15	35	9	Poor		Yes		Self corrected lean.
572	Ficus carica (Common fig)	D	3	8	20	13	Fair		Yes		Asymmetrical canopy.
573	Tsuga heterophylla (Western hemlock)	E	1	14	45	15	Fair		Yes		
574	Crataegus monogyna (Common hawthorn)	D	1	12	15	8	Poor		Yes		Asymmetrical canopy.
575	Thuja plicata (Western red cedar)	E	1	34	100	20	Fair	Yes	Yes		Co-dominant at 5 ft.
576	Thuja plicata (Western red cedar)	E	1	17	80	18	Fair		Yes		
577	Thuja plicata (Western red cedar)	E	1	13	70	12	Fair		Yes		
578	Thuja plicata (Western red cedar)	E	1	12	70	10	Fair		Yes		
579	Thuja plicata (Western red cedar)	E	1	15	75	12	Fair		Yes		
580	Thuja plicata (Western red cedar)	E	1	12	70	12	Fair		Yes		
581	Thuja plicata (Western red cedar)	E	1	12	70	9	Fair		Yes		
582	Thuja plicata (Western red cedar)	E	1	11	70	9	Fair		Yes		
583	Thuja plicata (Western red cedar)	E	1	22	70	12	Fair		Yes		
584	Thuja plicata (Western red cedar)	E	5	45	90	30	Fair	Yes	Yes		
585	Cryptomeria japonica (Japanese cedar)	E	1	13	20	15	Poor		Yes		
586	Crataegus monogyna (Common hawthorn)	D	2	16	30	10	Very Poor		Yes		Large wound on stem.
587	Thuja plicata (Western red cedar)	E	2	13	45	12	Fair		Yes		
588	Thuja plicata (Western red cedar)	E	4	16	45	12	Poor		Yes		
589	Thuja plicata (Western red cedar)	E	2	21	45	15	Fair		Yes		
590	Thuja plicata (Western red cedar)	E	2	13	40	9	Fair		Yes		
591	Thuja plicata (Western red cedar)	E	1	12	45	12	Fair		Yes		
592	Thuja plicata (Western red cedar)	E	2	14	45	12	Fair		Yes		
593	Thuja plicata (Western red cedar)	E	4	12	45	8	Fair		Yes		
594	Thuja plicata (Western red cedar)	E	3	13	45	10	Fair		Yes		
595	Thuja plicata (Western red cedar)	E	4	13	45	13	Poor		Yes		
596	Thuja plicata (Western red cedar)	E	2	11	45	12	Poor		Yes		
597	Thuja plicata (Western red cedar)	E	1	19	45	11	Fair		Yes		

Appendix B: Tree Inventory Map




Mercer Island Houtchens Tree Inventory


Legend	
	Subject Parcel
	King County Parcels
	On-Parcel Tree
	Off-Parcel Tree


Tree Inventory Map
 Site Address: 6024 SE 22nd St.
 Mercer Island
 Parcel Number: 2439700110
 Site Visit Date: March 25, 2021
 Prepared for: Mike Burke

N



0 15 30 60 Feet





**THE
WATERSHED
COMPANY**

A total of 97 trees within the study area were tagged with aluminum tag numbers between 501 – 597. There were four off parcel trees with driplines overhanging the subject parcels with the identification numbers 200 - 203. For questions on tree locations, contact Jake Robertson at the Watershed Company. Phone: (425) 822-5242