



ARBOR INFO LLC

2406 N Castle Way Brier, WA, 98036

**Tree Assessment  
For  
Seascape Homes  
At  
Lot 2, 5214 Forest Ave SE  
Mercer Island, Washington**

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**Date  
11/21/2022**

Table of Contents

1. Introduction ..... 3

2. Competence ..... 3

3. Client ..... 3

4. Assignment, Purpose and Use of Report ..... 3

5. Limits of Assignment ..... 3

6. Site Description ..... 4

7. Methodology ..... 4

8. Tree Description ..... 5

9. Root Zone Impacts ..... 6

10. Replacement Trees ..... 6

11. Summary ..... **Error! Bookmark not defined.**

12. Assumptions and Limiting Conditions ..... 7

List of Tables

1-Tree Classifications .....5

2-Root Zone Impacts .....5

3-Replacement Trees .....6

4- Tree Retention Calculations .....6

Addenda

- I. Tree Location Map
- II. Tree Assessment Summary Table
- III. Basic Tree Risk Assessment Forms
- IV. Mercer Island Check list
- V. Mercer Island Tree Inventory Form

## 1. Introduction

I was contacted by Jon Tellefson of Seascope Homes to describe and assess the condition, viability and protection of trees on Lot 2, 5214 Forest Avenue, Mercer Island, WA. This report summarizes my observations and conclusions.

## 2. Competence

- Certified Arborist –(International Society of Arboriculture, #23136, PN 0426 A)
- Registered Consulting Arborist (American Society of Consulting Arborists #499)
- Tree Risk Assessment Qualified (ISA).
- Certified forester (Society of American Foresters #951)
- Bachelor of Science degree in Forest Management from the University of Washington
- Licensed Washington State Real Estate Managing Broker #11534

## 3. Client

The client to whom this report is addressed is:

Jon Tellefson  
Seascope Homes  
PO Box 40568  
Bellevue, WA 98105  
[Jmt1231@gmail.com](mailto:Jmt1231@gmail.com)

Copy to:  
Kati Eitzman  
Sturman Architects  
[Kati@sturmanarchitects.com](mailto:Kati@sturmanarchitects.com)

## 4. Assignment, Purpose and Use of Report

The assignment is to describe and assess the condition and viability of on-site trees and to provide protection recommendations in conformance with the City of Mercer Island “Tree Submittal Check List”, attached.

## 5. Limits of Assignment

The assignment is limited to the information gathered during the site visit June 21, 2020 and June 10, 2022 (date of assessment) and references noted in this report. No excavation or sampling was undertaken to determine unseen defects. No inspection of trees not reported herein was made.

A site plan indicating a proposed development plan was provided and is included in the Addenda with tree locations noted.

## 6. Site Description

Lot 2, 5214 Forest Ave SE, Mercer Island, WA, King County Parcel No. 1410300059.

The subject property is heavily forested with a single-family residence and is 49,010 square feet in area. Of that, 17,154 square feet is buildable and 31,856 square feet is in a dedicated Native Growth Protection Area, NGPA and non-buildable buffers.

A new single-family residence is planned for the site.

## 7. Methodology

Each tree was measured for diameter at 4.5-feet above ground, (or equivalent) total height, percentage of live green crown, and dripline (extent of live limbs). Each tree is identified on the ground with a numbered aluminum tag corresponding to the attached Tree Location Map and Tree Assessment Spreadsheet.

Each tree was assessed as to its condition, or vigor and viability:

**Vigor** or condition:

Health: Biotic

- Good: No evidence of fungal infection or decay; expected to survive without disturbance to its normal life expectancy. (40-100 years in this case)
- Fair: Tree has initial fungal decay or evidence of insect habitat and is less likely to survive to normal life expectancy. Some with minor defects, are rated viable,
- Poor: Tree has significant fungal decay and defects that render it not likely to survive three years.

Structural: Abiotic

- Good: no significant abiotic or mechanical defects
- Fair: less than preferred form, defects such as breaks in the bole, poor limb attachments, included bark, poor root contact, etc.
- Poor: Broken or cracked bole or limbs; root plate compromised

**Viability:**

- A measure of whether the tree is likely to live to its “normal” life span or has defects limiting that potential or poses a risk to the residence or proposed development is a simple ‘yes/no’ rating.

**8. Tree Description**

Refer to the attached Tree Assessment Summary Form. A total of two on-site trees as indicated on the Site Plan provided were found.

Table 1- Tree Classifications-On-Buildable site

Tree No.	Species	Large	Exceptional	Viable
202	Douglas-fir	X		X

Trees No. 201,203,204,205 and 206 were removed previously under permit 2106-027.

Tree No. 202 the Douglas-fir will be removed as part of site clearing under this permit. Tree No. 203, removed previously for site clearing under permit and was a large viable tree.

A total of Thirty-two NGPA trees as indicated on the Site Plan provided were found. They are classified by the City Municipal Code (MICC) 19.10 –“Trees” as indicated following in Table 2.

Table 2- Tree Classifications-On-NGPA

Species	Exceptional	Large	Small	Not Viable
W. red cedar	2	2	1	
Bigleaf maple	4	10		
W. Hemlock				9
Douglas-fir	2	1		
Deciduous		1		

The Exceptional tree category does not double count the “large” trees.

Tree Replacement on site is assumed to not include non-viable or hazard trees. Non-viable hazard trees are No. 201, 204, 205 and 206. Basic Tree Risk Assessment Forms are included in Addendum III for these trees

Tree Replacements are anticipated for viable trees No. 202 and for No. 203 that was removed previously.

Table 3 – Tree Replacements

Tree No.	Species	Diameter	Status	No. Replacements*
202	Douglas-fir	25.2	Viable	3
203	Douglas-fir	39.1	Viable	6
Total				9

\*Per Mercer Island Code 19.10.070.A

The total tree retention calculation for Lot 2 is:

Table 4- Tree Retention Calculation

Total Regulated Trees on Site:	43
Regulated Trees Proposed for Removal:	6
Regulated Trees Proposed for Retention:	37
Percent of Retained trees:	84%

### 9. Root Zone Impacts

No on-site trees are planned for retention. Off site trees remaining on Lot 1 or in the NGPA will not have root zone incursion.

### 10. Replacement Trees

Nine trees will be planted to replace trees No. 202 and 203.

Per MCC 19.10.070 replacement trees must be at least 6-feet tall for Douglas-fir all spaced 20-feet apart. These are to be maintained for a period of 5 years after establishment. The planting detail is found in the addenda.

Tree protections for those to be retained include:

- Certified Arborist on site during excavation activities within the defined root zone of all trees.
- All trees to be retained are to be fenced at the edge of the recommended tree protection zone or NGPA boundary with 6-foot high cyclone type fencing.
- Utility lines should be bored if within the root zones. Bore access pits to be developed with 18” buckets or hand dug.
- Retaining wall footings to be minimally deep, no more than 12-inches.
- Tree roots over 1-1/2 inches in diameter encountered in all excavations are to be cut cleanly to the trench wall with clean sharp tools. Roots to be covered with soil or wetted burlap if they must remain exposed.

- Supplemental irrigation is to be provided during summer months (generally June-September) for all trees in the construction zones.
- Recommended protected tree root zones are to be covered with 4-inches of hog fuel at all times. Where machinery access is needed, the root zones should be covered with 12-inches of hog fuel, plywood or steel sheets.
- Stumps for trees to be removed are to be ground out (not excavated).

## 11. Assumptions and Limiting Conditions

1. Any legal description provided to the consultant is assumed to be correct. Ownership of the subject trees as provided by the client is assumed to be correct. No responsibility is assumed for legal matters. No opinion as to the property line location is made.
2. Care has been taken to obtain all information from reliable sources. The consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
3. The consultant shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including additional fees.
4. This report and any values expressed herein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
5. The exhibits in this report are included to assist the reader and are not necessarily to scale.
6. Unless expressed otherwise, information in this report covers only items that were examined and reflects the condition of those items at the time of inspection. The subject site was cleared of all vegetation at the time of inspection therefore the extent of removals is inferred from adjacent undisturbed areas. The inspection is limited to visual examination of accessible portions of the trees and plants.
7. Loss or alteration of any part of the report invalidates the entire report. Ownership of any documents related to this report passes to the client only.
8. The liability of ArborInfo LLC, its contractors and employees is limited to the client only and only up to the amount of the fee actually received for the assignment.
9. *There is no warranty suggested for any of the trees subject to this report. Weather, latent tree conditions, and future man-caused activities could cause physiologic changes and deteriorating tree condition. Over time, deteriorating tree conditions may appear and there may be conditions, which are not now visible which, could cause tree failure. This report or the verbal comments made at the site in no way warrant the structural stability or long-term condition of any tree, but represent my opinion based on the observations made.*

10. *NEARLY ALL TREES IN ANY CONDITION STANDING WITHIN REACH OF IMPROVEMENTS OR HUMAN USE AREAS REPRESENT HAZARDS THAT COULD LEAD TO DAMAGE OR INJURY. THE ASSESSMENT IS VALID FOR TWO YEARS FROM THE DATE OF INSPECTION, ONLY.*

11. PERTINENT JURISDICTION RULES AND REGULATIONS SHOULD BE CONSULTED PRIOR TO THE REMOVAL OF ANY TREE.

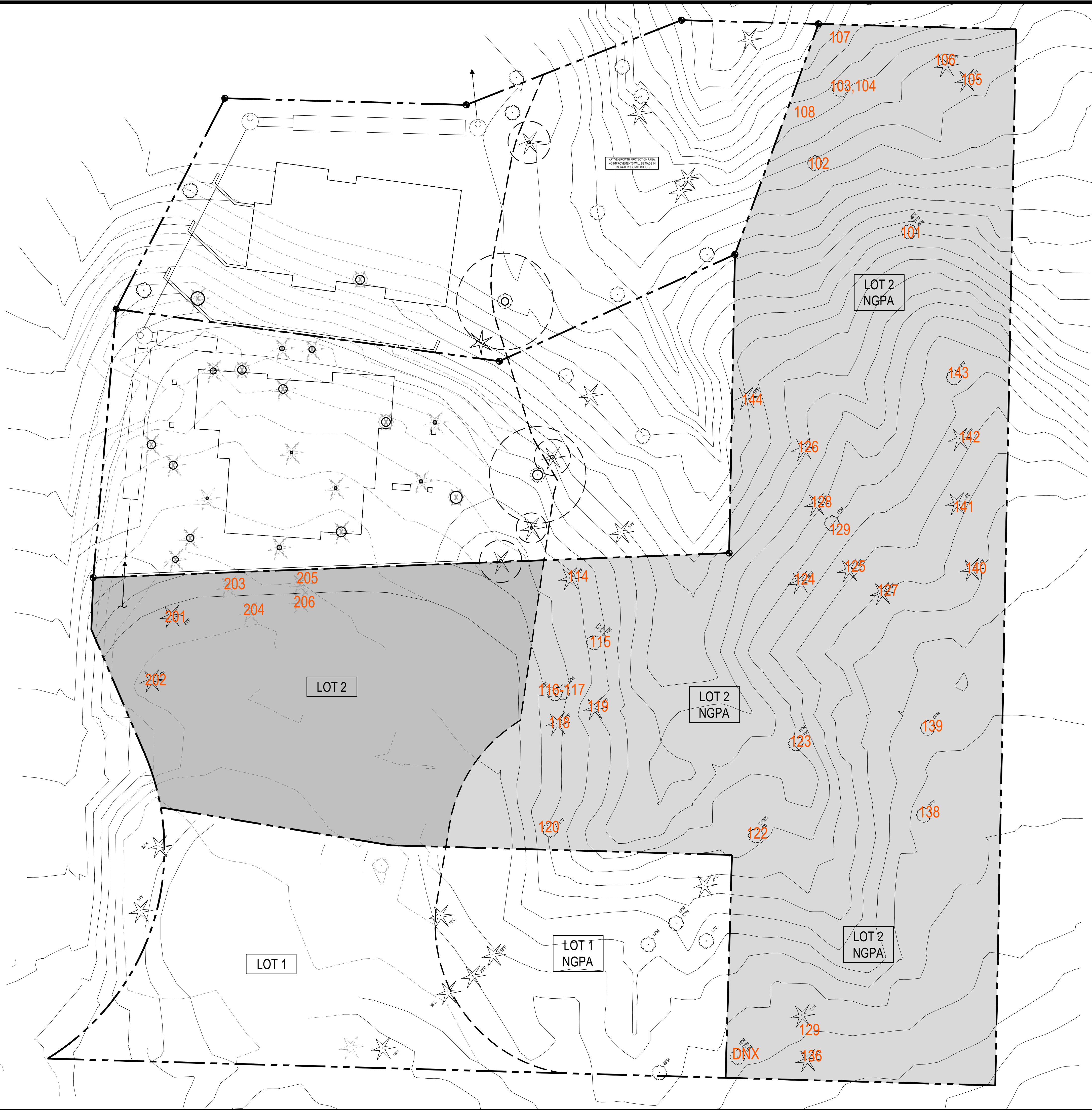
Respectfully Submitted,

A handwritten signature in cursive script that reads "Tom Hanson".

Thomas M. Hanson, CF, RCA



- I. Tree Location Map
- II. Tree Assessment Summary Table
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- V. Mercer Island Tree Inventory Form

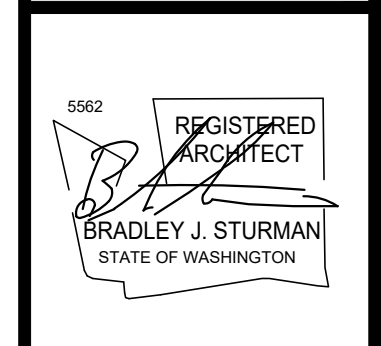


**2** LOT 2 FULL TREE PLAN  
 SCALE: 1/16" = 1'-0"

Tree Locations

SCALE: IF SHEET IS LESS THAN 24" X 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY  
 PERMIT SET 1/18/21

**STURMAN ARCHITECTS**  
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 9 103rd Avenue NE  
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 Bellevue, WA 98004



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**FOREST CREEK ESTATES**  
**LOT 2 SCHEMATIC DESIGN**  
 5214 FOREST AVE S.E.  
 MERCER ISLAND, WA 98040

**LOT 2 TREE PLAN**

REVISIONS:	
DRAWN BY:	KE
CHECKED BY:	BJS
SHEET	<b>A1.3</b>
PLOT DATE:	1/21/2021

Tree Assessment																	
Site: , Lot 2, Forest Ave , Mercer Island WA												Date:1/25/2021 (rev 6 14 2022)(rev 11/21/2022)					
Tree #	Common	Species Scientific	DBH (inches)	Height (feet)	Crown Ratio (%)	Dripline				LOD/Critical Inner Root Zone	Vigor		Viable Yes/No	Status	Replacement No.	Retain Remove	Defects/Comments
						N	S	E	W		Health	Structure					
<b>On Site-Lot 2</b>																	
201	Western hemlock	<i>Tsuga heterophylla</i>	21.1	98	60	8	10	10	9	5	Poor	Fair	No	Large		Remove	Dead top, stressed, heavy cone crop
202	Douglas-fir	<i>Pseudotsuga menziesii</i>	25.2	90	60	18	23	23	24	11	Good	Good	Yes	Large	3	Remove	Remove for Access
203	Douglas-fir	<i>Pseudotsuga menziesii</i>	39.1	150	60	16	38	16	16	11	Fair	Fair	Monitor	Exceptional-in grove	6	Removed Previously	Lower bole heartwood decay
204	Douglas-fir	<i>Pseudotsuga menziesii</i>	24.8	80	30	12	28	20	12	9	Poor	Fair	No	NA-in grove		Removed Previously	Heavy pitching, heartwood decay
205	Douglas-fir	<i>Pseudotsuga menziesii</i>	29.6	90	30	0	24	24	4	7	Poor	Poor	No	NA-in grove		Removed Previously	Lower bole heartwood decay, sweep
206	Western hemlock	<i>Tsuga heterophylla</i>	17.9	70	0	0	0	0	0	0	NA	NA	No	NA-in grove		Removed Previously	Dead
<b>Replacement Trees 9</b>																	
<b>Off Site -Lot 1(To be Removed and Replaced Under Separate Permit)</b>																	
1001	Bigleaf maple	<i>Acer macrophyllum</i>	62.5	110	80	32	40	35	41	19	Good	Good	Yes	Exceptional	Replace later	Remove	Oversize, overmature, not a good retention candidate-- within access drive excavation
1005	Douglas-fir	<i>Pseudotsuga menziesii</i>	41.2	130	60	24	24	28	20	12	Good	Good	Yes	Exceptional	Replace later	Remove	Within lot 2 Access drive excavation
<b>Native Growth Protection Area</b>																	
101	Bigleaf maple	<i>Acer macrophyllum</i>	41.6*	110	70	35	35	35	35	18	Good	Good	Yes	Exceptional		Retain	Three codominant stems
102	Western hemlock	<i>Tsuga heterophylla</i>	14.3	70	0	0	0	0	0	0	0	0	No	NA		Retain	Not a high hazard risk
103	Bigleaf maple	<i>Acer macrophyllum</i>	37.7*	95	60	32	32	32	32	16	Good	Good	Yes	Exceptional		Retain	
104	Bigleaf maple	<i>Acer macrophyllum</i>	27.0	90	60	32	32	32	32	16	Good	Good	Yes	Large		Retain	
105	Bigleaf maple	<i>Acer macrophyllum</i>	19.5	90	40	18	0	0	28	6	Good	Fair	Yes	Large		Retain	Asymetric
106	Western hemlock	<i>Tsuga heterophylla</i>	12.1	20	0	0	0	0	0	0	0	0	No	NA		Retain	Not a high hazard risk
107	Bigleaf maple	<i>Acer macrophyllum</i>	10.9	65	50	28	0	0	18	6	Good	Fair	Yes	Large		Retain	Asymetric
108	W. red cedar	<i>Thuja plicata</i>	7.3	30	90	14	10	10	14	6	Good	Good	Yes	Small		Retain	
114	Western hemlock	<i>Tsuga heterophylla</i>	16.5	60	0	0	0	0	0	0	NA	NA	No	NA		Retain	Dead
115*	Bigleaf maple	<i>Acer macrophyllum</i>	22.1	60	70	20	14	30	30	12	Fair	Poor	Yes	Large		Retain	Poor stump attachment--will fall to creek
116	Bigleaf maple	<i>Acer macrophyllum</i>	15.1	80	60	12	16	4	22	7	Good	Good	Yes	Large		Retain	
117	Bigleaf maple	<i>Acer macrophyllum</i>	13.8	60	60	14	12	18	14	7	Good	Good	Yes	Large		Retain	
118	Western hemlock	<i>Tsuga heterophylla</i>	24.5	65	50	8	14	6	14	5	Poor	Poor	No	NA		Retain	12-bole decay, 30% dead limbs
119*	W. red cedar	<i>Thuja plicata</i>	17.2	60	90	14	16	16	12	7	Good	Good	Yes	Large		Retain	
120	Bigleaf maple	<i>Acer macrophyllum</i>	19.9	40	50	20	29	20	18	11	Fair	Poor	Yes	Large		Retain	Decay at top break
121	Tag not used															Retain	
122*	Bigleaf maple	<i>Acer macrophyllum</i>	23.2	55	40	20	20	20	20	10	Good	Good	Yes	Large		Retain	
123*	Bigleaf maple	<i>Acer macrophyllum</i>	17.3	48	60	18	18	18	18	9	Good	Poor	Yes	Large		Retain	Perched over creek bank
124*	Western hemlock	<i>Tsuga heterophylla</i>	18.8	60	0	0	0	0	0	0	NA	NA	No	NA		Retain	Dead



# CITY OF MERCER ISLAND

## COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | [www.mercergov.org](http://www.mercergov.org)

Inspection Requests: Online: [www.mybuildingpermit.com](http://www.mybuildingpermit.com) VM: 206.275.7730



## TREE SUBMITTAL CHECKLIST

If a box is checked, please provide the information in your next submittal

### SUBMITTAL ITEMS

#### 1. The Mercer Island Tree Inventory Form

- Provide the City's Mercer Island Tree Inventory Form

#### 2. Arborist report/tree inventory

- Provide an Arborist report, prepared by a qualified Arborist. Include the following information in the arborist report.
  - 1. Description of how the arborist meets the threshold requirements for Qualified Arborist.
  - 2. A complete description of each tree's diameter, species, critical root zone, limits of allowable disturbance, health, condition, and viability.
  - 3. A description of the method(s) used to determine the limits of allowable disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees).
  - 4. Any special instructions specifically outlining any work proposed within the limits of disturbance protection areas (i.e. hand-digging, air space, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare).
  - 5. For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects, unavoidable isolation, windfirmness, unsuitability species, etc. If there is no reasonable alternative action (pruning, cabling, etc.) possible, replacement recommendations must be given.
  - 6. Describe the impact of necessary tree removal on the remaining trees, including those in a grove or on adjacent properties.
  - 7. Describe timing and installation of tree protection measures. Such measures must include fencing and be in accordance with the tree protection standards as outlined in MICC 19.10.
  - 8. The suggested location and species of replacement trees to be used when required. The report shall include planting and maintenance specifications to ensure long term survival.
  - 9. **A Tree Inventory** containing the following:
    - a. A numbering system of all existing large trees on the property (with corresponding tags on trees). The inventory shall also include large trees on adjacent property with driplines or critical root zones extending into the property.
    - b. Tree size (diameter).
    - c. Proposed tree status (retained or proposed for removal).
    - d. Tree type or species.
    - e. Identify all Exceptional trees and differentiate between those less than 24 inches and those greater than or equal to 24 inches in diameter.
    - f. Brief general health or condition rating of each tree (i.e. poor, fair, good, etc.).

#### 3. Site/tree retention plan

Indicate the following on all civil/utility and grading sheets. If there are no civil sheets indicate on the architectural site plan

- 1. Location of all proposed improvements (building footprint, access, utilities, buffers, required landscape areas).
- 2. Surveyed location of all large trees and Exceptional trees on the property
- 3. Show the critical root zone of Large trees on adjacent properties if driplines extend over the subject property line.
- 4. Trees labeled corresponding to the tree inventory numbering system on the Mercer Island Tree Inventory Form.
- 5. Identify Exceptional trees using different symbols for trees less than 24 inches and trees greater than or equal to 24 inches.
- 6. Location of tree protection measures.
- 7. Limits of excavation near potential saved trees (e.g. excavation limits for building foundation).
- 8. Indicate clearing limits/limits of disturbance (LOD) around all trees potentially impacted by site disturbances - grading, demolition, construction activities (including approximate LOD of off-site trees with overhanging driplines), etc.
- 9. Proposed tree status (trees to be removed or retained) noted by an 'X' for removal.

#### 4. Replanting plan

- Provide the Replanting plan showing proposed locations of any required replacement trees.

#### PEER REVIEW AND CONFLICT OF INTEREST

A peer review of the tree permit application by a qualified arborist may be required to verify the adequacy of the information and analysis. **The applicant shall bear the cost of the peer review.**

The City Arborist may require the applicant retain a replacement qualified arborist or may require a peer review where the City Arborist believes a conflict of interest may exist.

For example, if an otherwise qualified arborist is employed by a tree removal company and prepares the arborist report for a development proposal, a replacement qualified arborist or peer review may be required.

#### ARBORIST QUALIFICATION

For tree reviews associated with a development proposal, a qualified arborist must have

- A minimum of three (3) years' experience working directly with the protection of trees during construction
- Have experience with the likelihood of tree survival after construction
- Be able to prescribe appropriate measures for the preservation of trees during land development
- ISA Tree Risk Assessment Qualification
- Your qualified arborists must have at least one (1) of the following credentials:
  - ISA Certified Arborist;
  - ISA Certified Arborist Municipal Specialist;
  - ISA Board Certified Master Arborist;
  - American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
  - Society of American Foresters (SAF) Certified Forester for Forest Management Plans;

#### ADDITIONAL INFORMATION

Additional Information. The City Arborist or Code Official may require additional documentation, plans, or information as needed to ensure compliance with applicable City regulations.

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## COMMUNITY PLANNING & DEVELOPMENT

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PHONE: 206.275.7605 | [www.mercergov.org](http://www.mercergov.org)



## MERCER ISLAND TREE INVENTORY & REPLACEMENT SUBMITTAL INFORMATION

### PROJECT INFORMATION

Property Owner  
Name: \_\_\_\_\_

Site Address or  
Parcel Number: \_\_\_\_\_

Project Contact  
Name: \_\_\_\_\_

Contact Email  
Address: \_\_\_\_\_

Contact Phone  
Number: \_\_\_\_\_

### EXCEPTIONAL TREES

*Exceptional Trees*- means a tree or group of trees that because of its unique historical, ecological or aesthetic value constitutes an important community resource. A tree that is rare or exceptional by virtue of its size, species, condition, cultural/historical importance, age, and/or contribution as part of a tree grove. Trees with a diameter of more than 36 inches, or with a diameter that is equal to or greater than the diameter listed in the Exceptional Tree Table shown in MICC 19.16 under Tree, Exceptional.

List the total number of trees for each category and the tree identification numbers from the arborist report.

Number of trees 36" or greater \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Number of trees 24" or greater (including 36" or greater) \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Number of trees from Exceptional Tree Table (MICC 19.16) \_\_\_\_\_

List tree numbers: \_\_\_\_\_

### LARGE REGULATED TREES

Large Regulated Trees- means any tree with a diameter of 10 inches or more, and any tree that meets the definition of an Exceptional Tree.

Number of Large Regulated Trees on site 43 (A)

List tree numbers: \_\_\_\_\_

Number of Large Regulated Trees on site proposed for removal 6 (B)

List tree numbers: \_\_\_\_\_

**Percentage of trees to be retained ((A-B)/Ax100) note: must be at least 30%** 86 %

**RIGHT OF WAY TREES**

Right of Way Trees- means a tree that is located in the street right of way adjacent to the project property.

Number of Large Regulated Trees in right of way \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Number of Large Regulated Trees in right of way proposed for removal \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Reason for removal: \_\_\_\_\_

**TREE REPLACEMENT**

Tree replacement- removed trees must be replaced based on the ratio in the table below. Replacement trees shall be conifers at least six feet tall and or deciduous at least one and one-half inches in diameter at base.

Diameter of Removed Tree (measured 4.5' above ground)	Tree replacement Ratio	Number of Trees Proposed for Removal	Number of Tree Required for Replacement Based on Size/Type
Less than 10"*	1		
10" up to 24"	2		
Greater than 24" up to 36"	3		
Greater than 36" and any Exceptional Tree	6		
<b>TOTAL TREE REPLACEMENTS</b>			

***\*no replacement tree is needed if the tree fits all of the following;  
Less than 10 inches in diameter, not an exceptional tree, and not a replacement tree from another tree permit. \****