



January 17, 2023

John Monahan
2424 67th Ave. SE
Mercer Island, WA 98040

Re: **Tree Report** for address above (Parcel #4099501180)

To Whom It May Concern,

The purpose of this report is to identify and locate significant trees and determine their condition for construction on the property mentioned above. The following survey table documents the identification, measurements, and condition of each significant tree. A property map with the locations of the tagged trees is included at the end of this report.

On January 6, 2023, I provided a basic inspection of trees within and adjacent to the parcel mentioned above. The trees were measured (diameter tape) and tagged with a number engraved metal strip. The tag numbers correspond with the data in the following tree inventory table. Tree trunks were measured 4 ½ feet from the ground, known as the Diameter at Standard Height (DSH). The City of Mercer Island considers a significant tree to have a 10-inch DSH or greater. The number in the brackets is the total DSH for multiple trunks derived from the square root of the total diameter of all trunks; $DSH = \sqrt{[(DSH1)^2 + (DSH2)^2 + (DSH3)^2 + \dots]}$.

The tree protection zone, also known as the Limit of Disturbance (LOD) is the radius around the trunk where construction activities and access are limited to protect the tree(s) and soil from damage, and to sustain tree health and stability. The LOD is determined by species, branch length from trunk (dripline), DSH, surrounding conditions, and slope. The LOD protection plan and Critical Root Zones (CRZ) will be discussed later in this report.

Each tree is given a level of risk for hazards in the inventory table. Hazards are categorized into four types of risk assessed for a five-year period: *Improbable*, *possible*, *probable*, and *imminent*. *Improbable* risk means the tree is stable, void of defects, and unlikely to fail under normal, and may not in extreme, weather conditions. *Possible* risk means that failure is unlikely to occur in normal weather conditions but may be expected in extreme weather conditions. *Probable* risk means failure may be expected under normal weather conditions. Trees with *imminent* risk are in the act of failing and should be worked on as soon as possible.

The health of the trees is defined as good, fair, and poor. Sturdy trees with no signs of decay, disease, or structural defects have good health. Fair health describes a tree as having vigor but has defects such as disease, included bark, wood decay, weak structure, or root zone issues (i.e., impervious surfaces, compacted soil, etc.) that may not be feasible for mitigation. Poor health describes a tree that is dead, a state of decline, severely diseased, injured, or a hazard to surrounding property with no chance of recovery.

Tree Inventory Table:

Tag #	Species	DSH	Drip -line	TPZ	Health	Condition
501	Beech <i>Fagus sylvatica</i>	29.5"	20.0'	22.0'	Good	Sturdy tree with no signs of decay, disease, or structural defects. <i>Improbable</i> risk of whole tree or large part failure.
502*	Red cedar <i>Thuja plicata</i>	32.0"	15.0'	25.0'	Good	Sturdy tree with no signs of decay, disease, or structural defects. <i>Improbable</i> risk of whole tree or large part failure.
503	Red cedar	27.1"	15.0'	20.0'	Fair	Heartwood decay with 18" x 10' exposure from base of tree on east side. Reaction wood growth along the edges. <i>Possible</i> risk of whole tree failure.
504	Cherry plum <i>Prunus cerasifera</i>	9.0" 3.0" 4.0" [10.3"]	10.0'	10.0'	Good	Included bark between main stems. No signs of decay or disease. <i>Possible</i> risk of large part failure.
505	Oregon ash <i>Fraxinus latifolia</i>	13.8"	10.0'	10.0'	Good	Sturdy tree with no signs of decay, disease, or structural defects. <i>Improbable</i> risk of whole tree or large part failure.
506	English laurel <i>Prunus laurocerasus</i>	4.2" 4x4.0" [9.0"]	10.0'	10.0'	Good	Sturdy tree with no signs of decay, disease, or structural defects. <i>Improbable</i> risk of whole tree or large part failure.
507	Portugal laurel <i>Prunus lusitanica</i>	13.5" 12.5" 6.0" [19.4"]	10.0'	14.0'	Good	Sturdy tree with no signs of decay, disease, or structural defects. <i>Improbable</i> risk of whole tree or large part failure.

* "Exceptional" tree (MICC 19.10.060).

General Requirements:

30% of the trees over 10 inches DSH shall be retained and protected during the development process under Mercer Island Tree Retention Code. There are six (6) good to fair significant trees on the parcel. At least two (2) significant trees shall be retained to meet the minimum tree retention requirements for development. In addition, Cedar 502 is an "exceptional" tree in good health and requires retention and protection as part of the two trees needed for retention.

Tree Retention Table:

Tag #	Species	DSH
501	Beech	29.5"
502	Red cedar	32.0"
503	Red cedar	27.1"
504	Cherry plum	10.3"
505	Oregon ash	13.8"
506	English laurel	9.0"
507	Portugal laurel	19.4"

Keeping the trees listed above provides a 100% retention plan for significant trees on-site.

Tree Protection Plan:

Protective fencing is required around the perimeters of the LOD for each retained or group of trees during grading and construction. Temporary chain-link fencing is recommended to preserve the trees from soil disturbance due to machines, foot traffic, and materials. Grading and construction should not be allowed within the LOD of retained trees, unless described in this report.

There are no root zones for trees 501 and 502 within the existing house footprint. The fencing plan is just within their LOD to provide walking clearance around the house which will not impact the trees' health.

New Tree Recommendations:

New trees are not required with the current tree retention plan but may be a part of landscape design. Native trees are most preferred. Some of the larger native evergreen (conifer) trees include Douglas fir (*Psuedotsuga menziesii*), Red cedar (*Thuja plicata*), Western hemlock (*Tsuga heterophylla*), Grand fir (*Abies grandis*), Sitka spruce (*Picea sitchensis*), and Engelmann spruce (*Picea Engelmannii*).

Ornamental native trees and near native trees more suited for landscape design may include Mountain hemlock (*Tsuga mertensiana*), Shore pine (*Pinus contorta*), Excelsior cedar (*Thuja plicata* 'Excelsior'), and Pacific yew (*Taxus brevifolia*) for evergreen conifers. Deciduous trees include Serviceberry (*Amelanchier alnifolia*), Dogwood (*Cornus nutellii* or *Cornus* 'Eddie's White Wonder'), White oak (*Quercus garryana*), Pacific crabapple (*Malus fusca*), and Vine maple (*Acer circinatum*).

Please reply if you have questions.

Thank you,

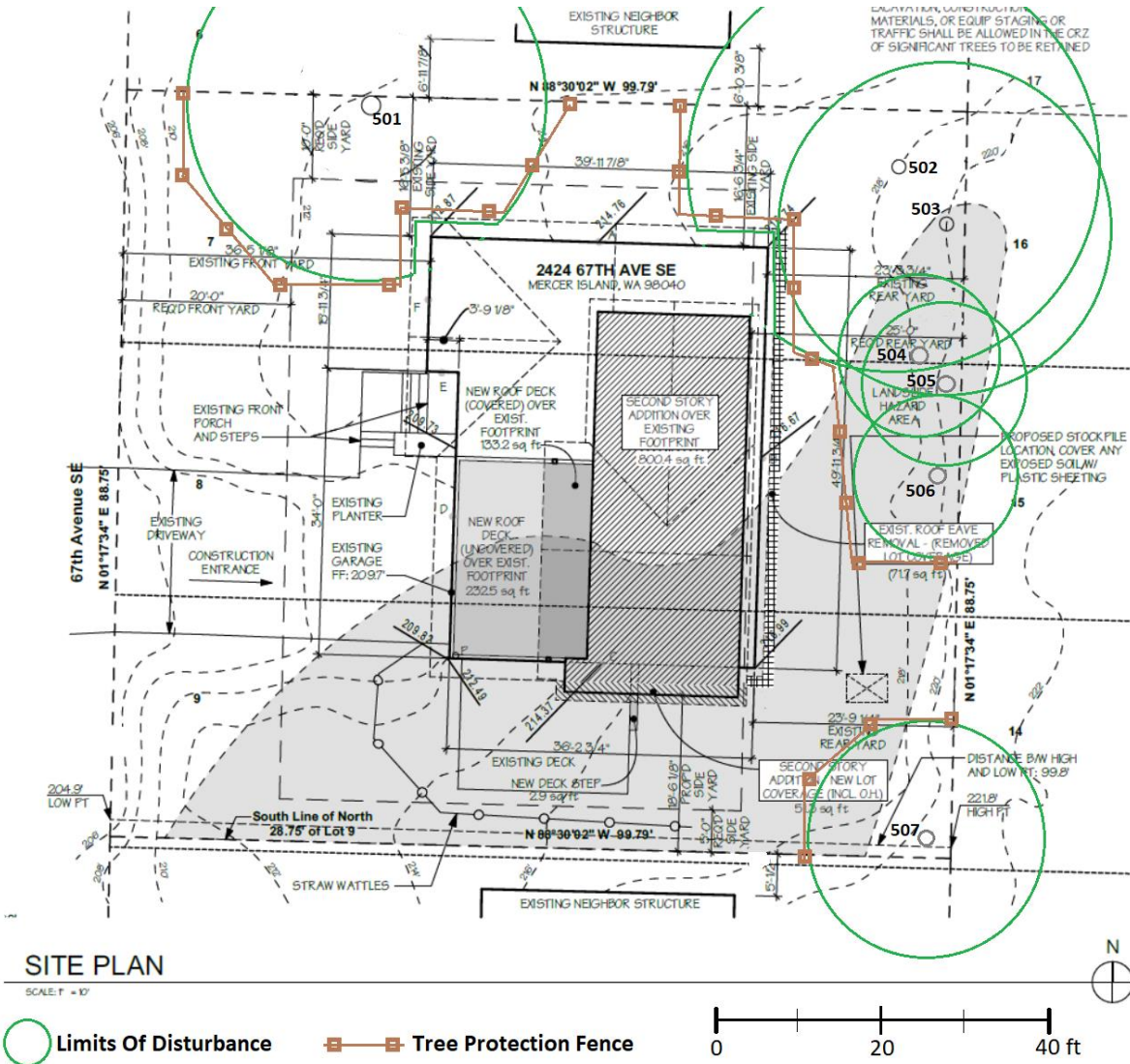


Lonnie Olson, Owner

ISA Certified Arborist (PN-5427A) exp. 12/31/2023

Qualified Tree Risk Assessor (#697) exp 7/23/2024

Site Map: 2424 67th Ave. SE.

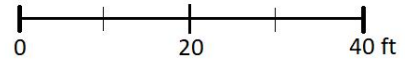


SITE PLAN

SCALE: 1" = 10'

○ Limits Of Disturbance

▣ Tree Protection Fence



Assumptions & Limiting Conditions

1. Any legal description provided to the consultant is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. All property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
2. All data has been verified insofar as possible; however, I can neither guarantee nor be responsible for the accuracy of information provided by others.
3. I shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee.
4. Loss or alteration of any part of this report invalidates the entire report.
5. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant.
6. Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, news, sales, or other media, without the prior expressed written or verbal consent of the consultant particularly as to value conclusions, identity of the consultant, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant as stated in my qualification.
7. This report and 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.
8. Sketches, diagrams, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
9. Unless expressed otherwise: (1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and (2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

Certification of Performance & Appraisal

I, Lonnie Olson, certify that all the statements of fact in this report are true, complete, and correct to the best of my knowledge and belief, and that they are made in good faith.

- ❑ I have personally inspected the trees and the property referred to in this report and have stated my findings accurately. The extent of the evaluation or appraisal is stated in the attached report and the terms of assignment.
- ❑ The analysis, opinions, and conclusions stated herein are my own and are based on current scientific procedures and facts.
- ❑ No one provided significant professional assistance to me, except as indicated within the report.
- ❑ My compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

I further certify that I am a member in good standing with the International Society of Arboriculture. I have been involved in the field of arboriculture in a full-time capacity for more than 25 years.

Lonnie Olson

Signed: _____