

Corinne R. Hollister

ISA CERTIFIED ARBORIST — PN-6981A
ISA TREE RISK ASSESSMENT QUALIFIED
American Society of Consulting Arborists, Member

Consulting Arborist Services

To: 2S Design, LLC
Elina Samarkina

Reference: Tree Inventory Report

Date: December 21, 2022

Site Address: 4205 85th Ave SE, Mercer Island 98040

Parcel: 2617900005



Dear Ms. Samarkina,

You contacted me and subsequently contracted my services to develop a tree inventory for the property referenced above. I visited the site on October 17, 2022, and collected data on all regulated trees. An inventory of those trees, along with ratings for tree health and structure, is the focus of this report. I received a topographic and boundary survey developed by 4 Site Surveying, LLC, after my site visit. The survey does not include the trees. I annotated an aerial photo with tree numbers to show tree locations. This inventory may need updating once trees are included and indicated on site plans.

This report does not include tree retention, tree replacement, or tree protection.

Summary:

I visually inspected and identified nine (9) regulated trees on and adjacent to the property – four (4) trees in the right-of-way along SE 42nd Street, two (2) trees with overhanging branches on the parcel to the west, one (1) tree on the parcel to the south, and (2) trees located on the property. Two (2) of the regulated trees are exceptional: a 11.2-inch Vine maple (*Acer circinatum*) located on the property, which is infected with Verticillium wilt, and a 14-inch Vine maple located on the parcel to the south. There are three (3) native species (Vine maple and Ponderosa pine – *Pinus ponderosa*), one (1) fruiting cherry (*Prunus avium*), four (4) Leyland cypress (*Cupressus x leylandii*), and one (1) Moss cypress (*Chamaecyparis pisifera*).

Tree categories are defined in MICC 19.10.

There are eight (8) small trees located in the ROW and two (2) on adjacent parcels. All of the trees are listed in the table beginning on page 7. Ratings for health and structure are included, as are tree categories, and notes on any visible defects or diseases.

Total large trees on site	1
Total exceptional trees on site	1
Total large trees offsite	2
Total exceptional trees offsite	1
Total large trees in ROW	4

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Introduction

I visually inspected the trees on site and identified one (1) exceptional and one (1) large tree on the parcel. There is one (1) exceptional tree with overhanging branches on the parcel to the south. In addition, there are two (2) large trees with overhanging branches on the parcel to the west, and four (4) large trees located in the right-of-way. The trees are a mix of two (2) native species, one (1) fruiting species, and two (2) ornamental conifer species, including a hedge of Leyland cypress.

All the trees are listed in the inventory table beginning on page 7.

Limitations and Use of this Report

This report establishes existing conditions of the trees on the property, utilizing the most practical means available. This report is based primarily on what is readily visible and observable, without any invasive means. Ratings for health and structure, as well as any recommendations, are valid only through project development and construction, and within a reasonable amount of time.

There are several factors that can affect a tree's condition, which may be pre-existing and indeterminable with only a visual analysis. No attempt was made to establish the presence of hidden or concealed conditions which may contribute to the risk or failure potential of trees on or adjacent to the site. These conditions include root and stem (trunk) rot, internal cracks, structural defects or construction damage to roots, which may be hidden beneath the soil. In addition, construction and post-construction circumstances can cause a relatively rapid deterioration of a tree's condition.

Fencing at the property perimeter limited access to offsite trees. Any estimated measurements are indicated as such.

Tree Inspection:

My inspection identifies both the health and the structure of each tree. Tree health assesses disease, insect infestation and old age. Tree structure is the manner in which a tree is constructed, along with observable defects, which can indicate if a tree is subject to failure. The results of this inspection are based on what was visible at the time of my site visit.

The inventory table beginning on page 7 reflects the results of my inspection, including the following for each tree:

- Number – as shown on the annotated aerial photo attached.
- Species – both common and Latin names.
- DBH – stem diameter measured in inches, 4.5 feet from the ground, unless otherwise indicated.
- Dripline – average branch extension from the trunk, measured as radius in feet from trunk center.
- Category – small, large, exceptional, and/or grove as defined by Mercer Island Municipal Code, 19.16.010.
- Ratings – from 1 to 3 (where '1' indicates no visible defects in structure or health; '2' indicates minor to moderate problems that may require action; '3' indicates significant problems or defects and tree removal is recommended).
- Visible defects – Visible structural defects or diseases:

Cherry bark tortrix – Enarmonia formosana, a non-native caterpillar pest which can eventually kill a tree by girdling beneath the bark or increasing susceptibility to other disease and infestation.

Foliage vigor – low foliage density may indicate stress, or early infection and/or declining health.

Fungal leaf spot – foliage is diseased with a fungus which may be manageable with treatment.

Ivy on trunk – dense ivy prevents a thorough inspections, and other defects may be present.

Lean – angle of trunk from vertical.

Multiple leaders – tree has multiple stem attachments, which may lead to tree failure and require maintenance or monitoring over time.

Scab – a fungal disease common on fruiting species, damaging leaves and fruit.

Suppressed – tree crowded by larger adjacent trees or structures, sometimes exhibiting poor structure and/or low vigor. Retain tree only as a grove tree, not a stand-alone.

Verticillium wilt – a soil-borne fungus which attacks roots and vascular systems and can kill a tree.

See Mercer Island Tree Retention Worksheet:

https://www.mercerisland.gov/sites/default/files/fileattachments/community_planning_amp_development/page/21988/mercerislandtreeinventory.pdf

Limits of Disturbance

Limits of Disturbance (LOD) for any construction activities which may impact retained trees shall be developed as the project progresses. Currently, no trees are proposed for removal.

Complete tree protection guidelines shall be developed based on the final design.

Mercer Island Tree Protection Code – Trees and Construction:

https://www.mercerisland.gov/sites/default/files/fileattachments/community_planning_amp_development/page/21988/treesandconstruction.pdf

Attachment 1: Assumptions and Limiting Conditions

1. A field examination of the site was made on October 17, 2022. Observations and conclusions are as of that date.
2. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, as the consultant/arborist I can neither guarantee nor be responsible for the accuracy of information provided by others.
3. I am not a qualified land surveyor, and this tree report is based on an aerial photo from King County iMap. A topographic survey developed by 4 Site Surveying, LLC, October 27, 2022, did not include trees. Sketches and photographs in this report are not necessarily to scale and should not be construed as an accurate survey.
4. I, as consultant/appraiser, shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made.
5. Unless stated otherwise: 1) information contained in this report covers only those trees that were examined and reflects the condition of those trees at the time of inspection; and 2) the inspection is limited to visual examination of the subject trees without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied that problems or deficiencies of the subject tree may not arise in the future.
6. Unless required by law otherwise, 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 prior written or verbal consent of the consultant.
7. All trees possess the risk of failure. Trees can fail at any time, with or without obvious defects, and with or without applied stress. Risk management is solely the responsibility of the landowner.
8. Construction activities can impact trees in unpredictable ways. All retained trees should be inspected at the completion of construction, and regularly thereafter as part of ongoing maintenance.

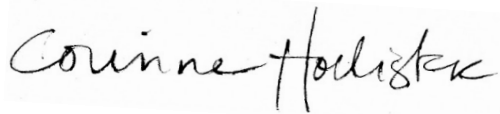
Attachment 2: Certificate of Performance

I, Corinne Hollister, certify that:

- I have personally inspected the trees and the property referred to in this report and have stated my findings accurately.
- I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
- The analysis, opinion, and conclusions stated herein are my own and are based on current industry standards, scientific procedures and facts.
- My analysis, opinion, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.
- 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 of the International Society of Arboriculture (ISA), and the ISA PNW Chapter, I am an ISA Certified Arborist (#PN-6981A) and am Tree Risk Assessment Qualified. I also am a member of the American Society of Consulting Arborists (ASCA).

Signed,



Corinne Hollister

Date: December 21, 2022

Attachment 3: Tree Inventory Table – shaded rows indicated trees on the property

Tree #	Species	DBH	Dripline	Category	Health	Structure	Notes
1	<i>Prunus avium</i> Sweet cherry	10	11	Large tree ROW	2	1	Quadratic mean calculation: 2 main stems – 6.5, 7.5 inches; fungal leaf spot, Cherry bark tortrix.
2	<i>Cupressus x Leylandii</i> Leyland cypress	18.8	11	Large tree ROW	1	1	Quadratic mean calculation: 4 main stems – 11, 11, 9, 5.5 inches.
3	<i>Cupressus x leylandii</i> Leyland cypress	14.5	12	Large tree ROW	1	1	
4	<i>Cupressus x leylandii</i> Leyland cypress	14.4	10	Large tree ROW	1	1	Quadratic mean calculation: 2 main stems – 12, 8 inches estimated.
5	<i>Cupressus x leylandii</i> Leyland cypress	19.5	10	Large tree Offsite – W	1	1	Quadratic mean calculation: 4 main stems – 11, 11.5, 7.5, 8.5 inches estimated.
6	<i>Pinus ponderosa</i> Ponderosa pine	17	12	Large tree Offsite – W	2	2	Suppressed, ivy on trunk, twist in trunk; dripline estimated.
7	<i>Chamaecyparis pisifera</i> 'Squarrosa' Moss cypress	17.5	13	Large tree	2	2	Double leader, ivy on trunk, low foliage vigor.
8	<i>Acer circinatum</i> Vine maple	11.2	14	Exceptional tree	2	3	Quadratic mean calculation: 3 main stems – 4.5, 7, 7.5 inches; dying, suspected Verticillium wilt.
9	<i>Acer circinatum</i> Vine maple	14	See notes	Exceptional tree Offsite – S	1	1	5.5-foot overhang from existing fence.
Small /Non-regulated trees							
101	<i>Prunus avium</i> Sweet cherry	7	11	Small tree ROW	1	1	Quadratic mean calculation: 2 main stems – 5, 5 inches.
102	<i>Chamaecyparis obtusa</i> Hinoki cypress	9.5	8.5	Small tree ROW	1	1	
103	<i>Fraxinus nigra</i> Black ash	6.5	13	Small tree ROW	1	1	

Tree #	Species	DBH	Dripline	Category	Health	Structure	Notes
104	<i>Tsuga mertensiana</i> Mountain hemlock	4	4	Small tree ROW	1	2	Lean to East
105	<i>Prunus domestica</i> Fruiting plum	7.5	10	Small tree ROW	2	1	Quadratic mean calculation: 3 main stems – 5, 4, 4 inches; drought stressed.
106	<i>Malus sp.</i> Apple	4.7	9	Small tree ROW	2	2	Quadratic mean calculation: 2 main stems – 2.5, 4 inches; scab, drought stressed.
107	<i>Malus sp.</i> Apple	7.5	8	Small tree ROW	2	2	Quadratic mean calculation: 3 main stems – 2.5, 4.5, 5.5 inches; scab, drought stressed.
108	<i>Cupressus x leylandii</i> Leyland cypress	6	8	Small tree Offsite – W	2	1	Suppressed, estimated measurements.
109	<i>Fraxinus nigra</i> Black ash	4	12	Small tree Offsite – S	1	1	Estimated measurements
110	<i>Cornus florida</i> Eastern dogwood	7.5	7	Small tree Offsite – S	1	1	Estimated measurements

Large shrubs – Camellia, Rhododendron, Privet, Laurel – not included in Tree Inventory.

DBH measured at 4.5 feet from grade as diameter in inches; Dripline measured in feet as radius from trunk center.

Health and Structure ratings – '1' indicates none to minor visible health-related problems or structural defects, '2' indicates moderate to major visible problems or defects that may require attention if the tree is retained, and '3' indicates significant visible problems or defects and tree removal is recommended

* Quadratic mean calculation of DBH.

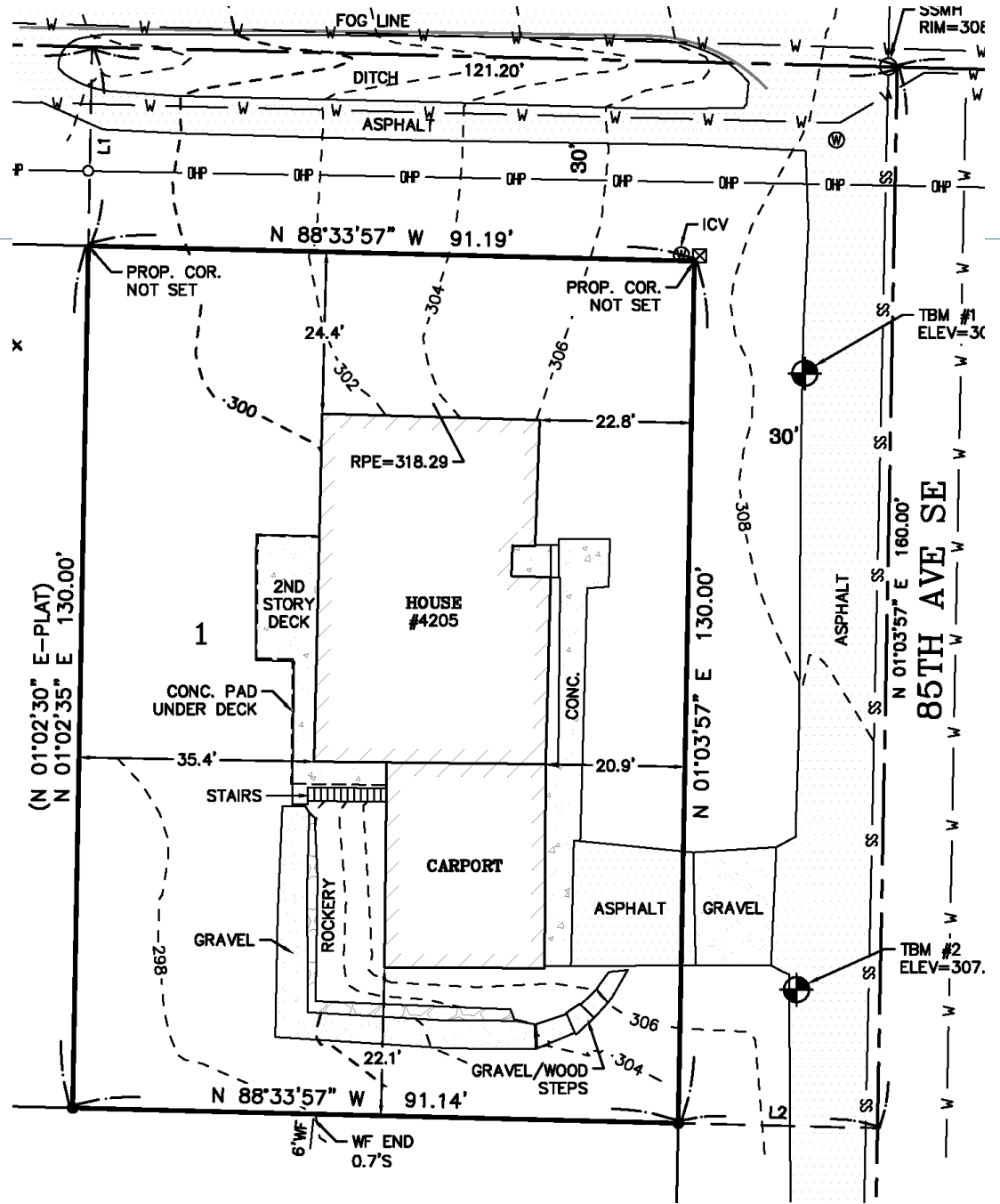
Health and Structure ratings – '1' indicates none to minor visible health-related problems or structural defects, '2' indicates moderate to major visible problems or defects that may require attention if the tree is retained, and '3' indicates significant visible problems or defects and tree removal is recommended.

Tree categories – small, large, exceptional, grove as defined by MICC 19.16.010.

Attachment 4: Annotated Aerial Photo



Attachment 5: Survey Detail, 4 Site Surveying, LLC



Attachment 6: Photos of site



Above: Looking west from the north side of the existing home. Tree #2, 3, 4, and 5, an L-shaped hedge of Leyland cypress.

Right: Looking northwest along 45th Street, a row of fruit trees located in the right-of-way along SE 42nd Steet.

Left: Looking west from the south side of the house, Trees #6, 7, 8 and 9 are visible.

