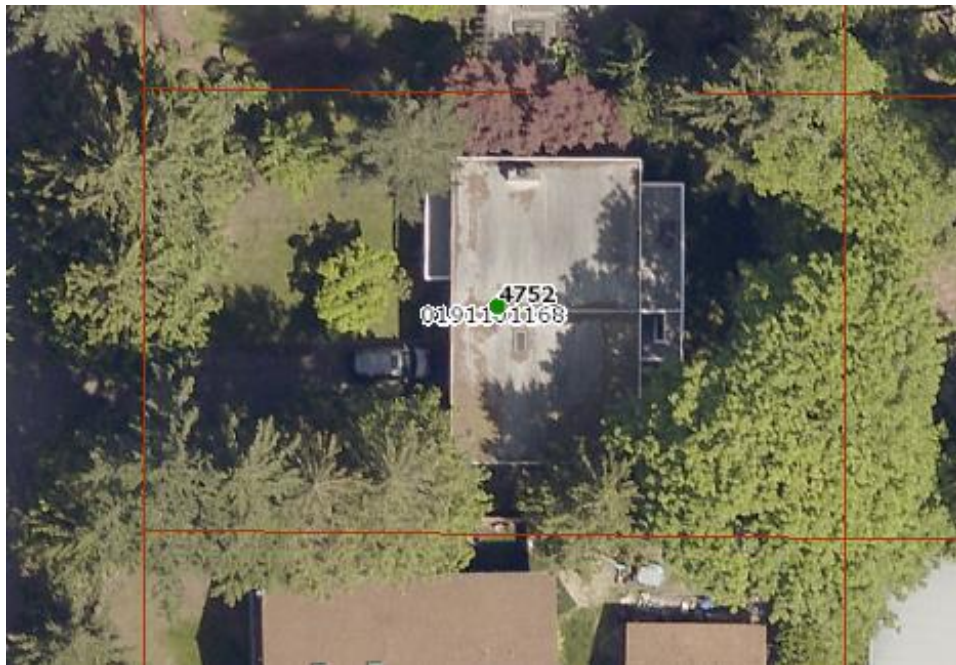




ARBOR INFO LLC

2406 N Castle Way Brier, WA, 98036

**Tree Assessment
For
Medved Residence
At
4752 89th Ave SE
Mercer Island, Washington**



**Date
5/12//2020**

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

1. Introduction

I was contacted by Kati Eitzman, Sturman Architects to describe and assess the condition, viability and protection of trees at the Medved residence, 4752 89th Ave SE, Mercer Island, WA. This report summarizes my observations and conclusions.

2. Competence

- Certified Arborist (International Society of Arboriculture, ISA #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:

Kati Eitzman
Sturman Architects
9-103rd Ave NE
Bellevue, WA 98004
BradS@Sturmanarchitects.com
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 May 11, 2020 (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

4752 -89th Ave SE, Mercer Island, WA, King County Parcel No. 0191101168. The subject property consists of a single-family residence on 11,475 square feet.

A house remodel project is planned on 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 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 thirty-two on-site 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 1.

Species	Exceptional	Large	Small
W. red cedar	4	3	1
Bigleaf maple	1	2	1
Red alder		1	1
Douglas-fir		5	
Portugal Laurel			7
Holly			3
Japanese maple			2
Dogwood			1

Only one tree, No. 17, a western red cedar is non-viable. Replacement would not be required under Mercer Island regulations.

9. Root Zone Impacts

Only tree No. 32 will be removed. This non-exceptional tree is not required to be replaced. (MICC19.10.070). No other trees are planned for removal. Trees potentially affected by construction are Nos. 5, 6, 7 and 8.

The limits of disturbance are determined on a case by case basis for each tree in consideration of the tree size, estimate of the extent of the root zone and consideration of the planned root zone disturbance. Distances from the face of each tree to the excavation limit were provided by the client. There appears to be little or not impact to the retained trees.

Table 2 – Root Zone Impacts

		<u>Diameter</u>	<u>Facing Dripline</u>	<u>Measured Distance to Excavation Limit</u>	<u>Excavation Type</u>	<u>Root Zone impact</u>
5	Douglas-fir	22.3	16,	15'	Footing	None
6	W. red cedar	30.6	17'	4'	Footing	~20%
7	W. red cedar	34.5	20'	4'	Footing	~20%
8	W. red cedar	25.1	12'	4'	Footing	~20%

10. Discussion

Mercer Island Code does not specify root zone protection areas. The encroachments projected for trees 6-8 are within the general tolerances for trees and it can be expected that these will remain viable. Tree No. 7 has significant heartwood decay, however cedars with this condition often stand for decades.

An arborist inspection of all three impacted trees is recommended on bi-yearly basis.

11. Summary

Thirty one of the thirty-two of the on-site trees are healthy and structurally sound indicating full-term viability.

Tree protections in addition to city regulations should include:

Tree Protections during construction should 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 with 6-foot high cyclone type fencing.
- Utility lines should be bored. 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).

12. 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,



Thomas M. Hanson, CF, RCA

Addenda

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

Tree Assessment

Site: , Medved Residence, 4752 - 89th Ave SE, Mercer Island, WA

Date: May 12, 2020

Tree #	Common	Species Scientific	DBH (inches)	Height (feet)	Crown Ratio (%)	N	Dripline			Class	LOD/Critical Root Zone	Vigor Health Structure	Viable Yes/No	Defects/Comments
							S	E	W					
On Site														
1	W. Red Cedar	<i>Thuja Plicata</i>	37.9	75	90	25	14	25	25	Exceptional		Good	Yes	
2	W. Red Cedar	<i>Thuja Plicata</i>	35.7	75	90	14	25	22	20	Exceptional		Good	Yes	Utility Vault at base
3	W. Red Cedar	<i>Thuja Plicata</i>	27.5	75	90	18	18	18	18	Large		Good	Yes	
4	Douglas-fir	<i>Pseudotsuga menziesii</i>	27.4	105	60	25	25	25	20	Large		Good	Yes	Crown lifted
5	Douglas-fir	<i>Pseudotsuga menziesii</i>	22.3	105	60	16	22	16	14	Large		Good	Yes	Crown lifted
6	W. Red Cedar	<i>Thuja Plicata</i>	30.6	95	80	19	18	16	16	Exceptional		Good	Yes	Minor butt rot
7	W. Red Cedar	<i>Thuja Plicata</i>	34.5	90	80	20	14	16	14	Exceptional		Good	Yes	Heartwood decay to 6-feet
8	W. Red Cedar	<i>Thuja Plicata</i>	25.1	68	70	12	16	16	20	Large		Good	Yes	Minor root scalping
9	Bigleaf maple	<i>Acer macrophyllum</i>	36.5*	75	80	24	24	35	30	Exceptional		Good	Yes	
10	Bigleaf maple	<i>Acer macrophyllum</i>	9.9	60	30	10	12	0	24	Small		Good	Yes	Asymetric
11	Portugal Laurel	<i>Prunus lusitanica</i>	5	16	40	6	6	6	6	Small		Good	Yes	
12	Portugal Laurel	<i>Prunus lusitanica</i>	5.8	18	40	8	2	0	10	Small		Good	Yes	
13	Portugal Laurel	<i>Prunus lusitanica</i>	5.4	20	30	4	6	0	10	Small		Good	Yes	
14	Portugal Laurel	<i>Prunus lusitanica</i>	3.7	14	30	6	4	0	8	Small		Good	Yes	
15	Bigleaf maple	<i>Acer macrophyllum</i>	21.1	75	60	26	18	22	22	Large		Good	Yes	
16	Portugal Laurel	<i>Prunus lusitanica</i>	6	22	60	16	0	14	0	Small		Good	Yes	
17	W. Red Cedar	<i>Thuja Plicata</i>	8.8	22	30	14	0	16	0	Small		Poor	No	Major decay
18	Portugal Laurel	<i>Prunus lusitanica</i>	6.1	25	30	12	0	12	0	Small		Good	Yes	
19	W. Red Cedar	<i>Thuja Plicata</i>	10.7	60	40	10	12	16	0	Large		Good	Yes	
20	Bigleaf maple	<i>Acer macrophyllum</i>	11.8	60	40	10	8	16	16	Large		Good	Yes	Asymetric
21	Red alder	<i>Alnus rubra</i>	9.4	65	60	6	4	30	10	Small		Good	Yes	Fused at base

Tree Assessment

Site: , Medved Residence, 4752 - 89th Ave SE, Mercer Island, WA

Date: May 12, 2020

Tree #	Common	Species Scientific	DBH (inches)	Height (feet)	Crown Ratio (%)	N	Dripline			Class	LOD/Critical Root Zone	Vigor		Viable Yes/No	Defects/Comments
							S	E	W			Health	Structure		
On Site															
22	Red alder	<i>Alnus rubra</i>	13.8	65	60	28	10	10	10	Large		Good	Fair	Yes	Fused at base
23	Douglas-fir	<i>Pseudotsuga menziesii</i>	13.6	76	70	10	16	18	10	Large		Good	Fair	Yes	
24	Douglas-fir	<i>Pseudotsuga menziesii</i>	19.6	80	70	20	10	22	10	Large		Good	Fair	Yes	
25	Holly	<i>Ilex sp.</i>	6.2*	25	80	10	12	8	6	Small		Good	Good	Yes	

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | www.mercergov.org



TREE INVENTORY & REPLACEMENT SUBMITTAL INFORMATION

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 _____ (A)

List tree numbers: _____

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

List tree numbers: _____

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

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		
TOTAL TREE REPLACEMENTS			



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