Greenforest Incorporated

Consulting Arborist

TO: Farzad Ghazvinian

REFERENCE: Regulated Tree Inventory

SITE ADDRESS: 2928 72nd PL SE, Mercer Island, WA 98040

DATE: June 16, 2020

PREPARED BY: Favero Greenforest, ISA Certified Arborist # PN -0143A
ISA Tree Risk Assessment Qualified
ASCA Registered Consulting Arborist® #379

You contacted me and contracted my services as a consulting arborist. My assignment is to prepare a *significant tree inventory* of the regulated trees on the site, as per MI code §19.10.090.c.2.a.

You provided me a topographic survey prepared by Site Surveying, Inc., dated 3/13/2020. I visited the site 6/11/2020 and visually inspected the trees on this site, which are the subject of this report.

Summary:

	Onsite	*Offsite*
Large	*1*	*5*
Exceptional	*1*	*2*
Grove	*0*	*0*

This inventory establishes, via the most practical means available, the existing conditions of the trees on the subject property. Ratings for health and structure, as well as any recommendations are valid only through the development and construction process. This report is based solely on what is readily visible and observable, without any invasive means.

There are several conditions that can affect a tree's condition that may be pre-existing and unable to be ascertained with a visual-only analysis. No attempt was made to determine the presence of hidden or concealed conditions which may contribute to the risk or failure potential of trees on 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. Additionally, construction and post-construction circumstances can cause a relatively rapid deterioration of a tree's condition.

TREE INSPECTION

I visually inspected each tree from the ground. I performed a Level 1 risk assessment.[1] This is the standard assessment for populations of trees near specified targets, conducted in order to identify obvious defects or specified conditions such as a pre-development inventory. This is a limited visual assessment focuses on identifying trees with imminent and/or probable likelihood of failure, and/or other visible conditions that will affect tree retention.

I recorded tree species and size (DBH). I estimated the average dripline of each tree. I rated the condition of each tree, both health and structure/form. A tree's structure/form is distinct from its health. This inspection identifies what is visible with both.

High-risk trees can appear healthy in that they can have a dense, green canopy. This may occur when there is sufficient sapwood or adventitious roots present to maintain tree health, but inadequate strength for structural support.

Conversely, trees in poor health may or may not be structurally stable. For example, tree decline due to root disease is likely to cause the tree to be structurally unstable, while decline due to drought or insect attack may not.

One way that tree health and structure/form are linked is that healthy trees are more capable of compensating for structural defects. A healthy tree can develop adaptive growth that adds strength to parts weakened by decay, cracks, and wounds.

This report identifies unhealthy trees based on existing health conditions and tree structure, and specifies which trees are most suitable for preservation.[2]

No invasive procedures were performed on any trees. The results of this inspection are based on what was visible at the time of the inspection.

[1] Companion publication to the ANSI A300 Part 9: Tree Shrub and Other woody Plant Management – Standard
[2] Companion publication to the *ANSI A300 Part 5: Tree Shrub and Other woody Plant Maintenance – Standard Practices, Managing Trees During Construction*. 2008. ISA.

The attached inventory summarizes my inspection results and provides the following information for each tree:

Proposed Action – indicates if tree is to be removed or retained.

Threshold – for exceptional designation.

Regulated Tree Category – indicates if tree is small, large or exceptional as defined by Municipal code.

Grove tree – there are no grove trees associated with this parcel.

> 24" – indicates trees with DBH equal to or greater than 24".

Tree number as shown on attached exhibit.

DBH stem diameter in inches measured 4.5 feet from the ground. DBH for offsite trees is estimated, and not measured.

QMD - multiple-stemmed trees are reported as a single integer, using quadratic mean.

Tree Species Latin and common name.

Dripline average branch extension from the trunk as radius in feet.

Health and Structure/Form ratings '1' indicates good to excellent condition; no visible health-related problems or structural defects, '2' indicates fair condition; minor visible problems or defects that may require attention if the tree is retained, and '3' indicates poor condition; significant visible problems or defects and tree removal is recommended.

Comments on Condition obvious structural defects or diseases visible at time of inspection.

Tree type – indicates if tree is coniferous, deciduous or broadleaf evergreen.

LIMITS OF DISTURBANCE

Limits of Disturbance (LOD) are calculated for all the retained significant trees (and for trees on adjoining parcels with overhanging driplines). They are listed below as radii in feet from the trunk for the side of the tree to be impacted by construction. They are determined using rootplate [3] and trunk diameter,[4,5] and ISA Best Management Practices.[6] These are the minimum distances from the trees for any soil disturbance, and represent the area to be protected during construction.

These LOD are malleable and may be adjusted during the design and construction process. The following table lists the limits of disturbance of each the onsite trees.

Category	Tree No.	DBH (In.)	Species	Dripline (R')	LOD (R')
Exceptional	1	38”	Deodar cedar	27’	20’
Large	2	26”	Alpine fir	12’	13’
OFFSITE TREES					
Exceptional	3	36”	Western red-cedar	18’	See attached exhibit.
Large	4	26”	Western red-cedar	16’	Trees 5, 6 & 9, place wood chips between PL and existing house to protect roots. Trees 4, 7 & 8, no anticipated root impact as site access is currently paved.
Large	5	20”	Western hemlock	19’	
Exceptional	6	48”	Sweet cherry	0	
Large	7	12,16,16”	Western red-cedar	14’	
Large	8	22”	Douglas-fir	16’	
Large	9	18”	Western hemlock	0	

PROPOSED TREE RETENTION

Both onsite trees are viable for retention. Tree #2 is proposed for removal, and its removal will have no impact on remaining trees on your parcel or on adjoining parcels.

[3] Coder, Kim D. 2005. *Tree Biomechanics Series*. University of Georgia School of Forest Resources.
[4] Smiley, E. Thomas, Ph. D. *Assessing the Failure Potential of Tree Roots, Shade Tree Technical Report*. Bartlett Tree Research Laboratories.
[5] Fite, Kelby and E. Thomas Smiley. 2009. *Managing Trees During construction; Part Two*. Arborist News. ISA.
[6] Companion publication to the ANSI A300 Series, Part 5: Managing Trees During Construction. 2008. ISA.

SPECIAL INSTRUCTION AND TREE PROTECTION MEASURES AROUND RETAINED TREES
Minimum six (6) foot temporary chain-link fence shall be installed at the driplines of tree #1, except where covered in paving, and as show on the attached exhibit for tree #3. Install fence posts using pier block only. A City planner must approve any modifications to the fencing material and location.

No stockpiling of materials, vehicular or pedestrian traffic, material storage or use of equipment or machinery shall be allowed within the protective fencing. Fencing shall not be moved or removed unless approved by a City planner. Any work, activity or soil disturbance within the protection fencing, or critical root zone, shall be reviewed, approved and monitored by the project arborist.

Instructions and specifications for pruning roots or branches shall be addressed individually for specific trees based on the proposed encroachment.

Fencing signage as detailed (see attached) must be posted every fifteen (15) feet along the fencing.

This project is currently in the design phase. Additional information will be provided later as required by City under separate cover of an *arborist report*:

Attachments:

1. Assumptions and Limiting Conditions
2. Certification of Performance
3. Tree Protection Detail
4. Significant Tree Inventory
5. Tree Number Exhibit and Protection Fencing

Attachment No. 1 - Assumptions & Limiting Conditions

1. A field examination of the site was made 6/11/2020. My 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, the consultant/arborist can neither guarantee nor be responsible for the accuracy of information provided by others.

3. I am not a qualified land surveyor. Reasonable care was used to match the trees indicated on the sheets with those growing in the field.

4. Construction activities can significantly affect the condition of retained trees. All retained trees should be inspected after construction is completed, and then inspected regularly as part of routine maintenance.

5. Unless stated other wise: 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. All trees possess the risk of failure. Trees can fail at any time, with or without obvious defects, and with or without applied stress. A complete evaluation of the potential for this (a) tree to fail requires excavation and examination of the base of the subject tree. Permission of the current property owner must be obtained before this work can be undertaken and the hazard evaluation completed.

7. The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made.

8. This report and any values/opinions expressed herein represent the opinion of the consultant/appraiser, and the consultant's/appraiser'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.

Attachment No. 2 - Certification of Performance

I, Favero Greenforest, 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 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 of 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 International Society of Arboriculture (ISA), and the ISA PNW Chapter, I am an ISA Certified Arborist (#PN-0143A) and am Tree Risk Assessment Qualified, and am a Registered Consulting Arborist® (#379) with American Society of Consulting Arborists. I have worked as an independent consulting arborist since 1989.

Signed:

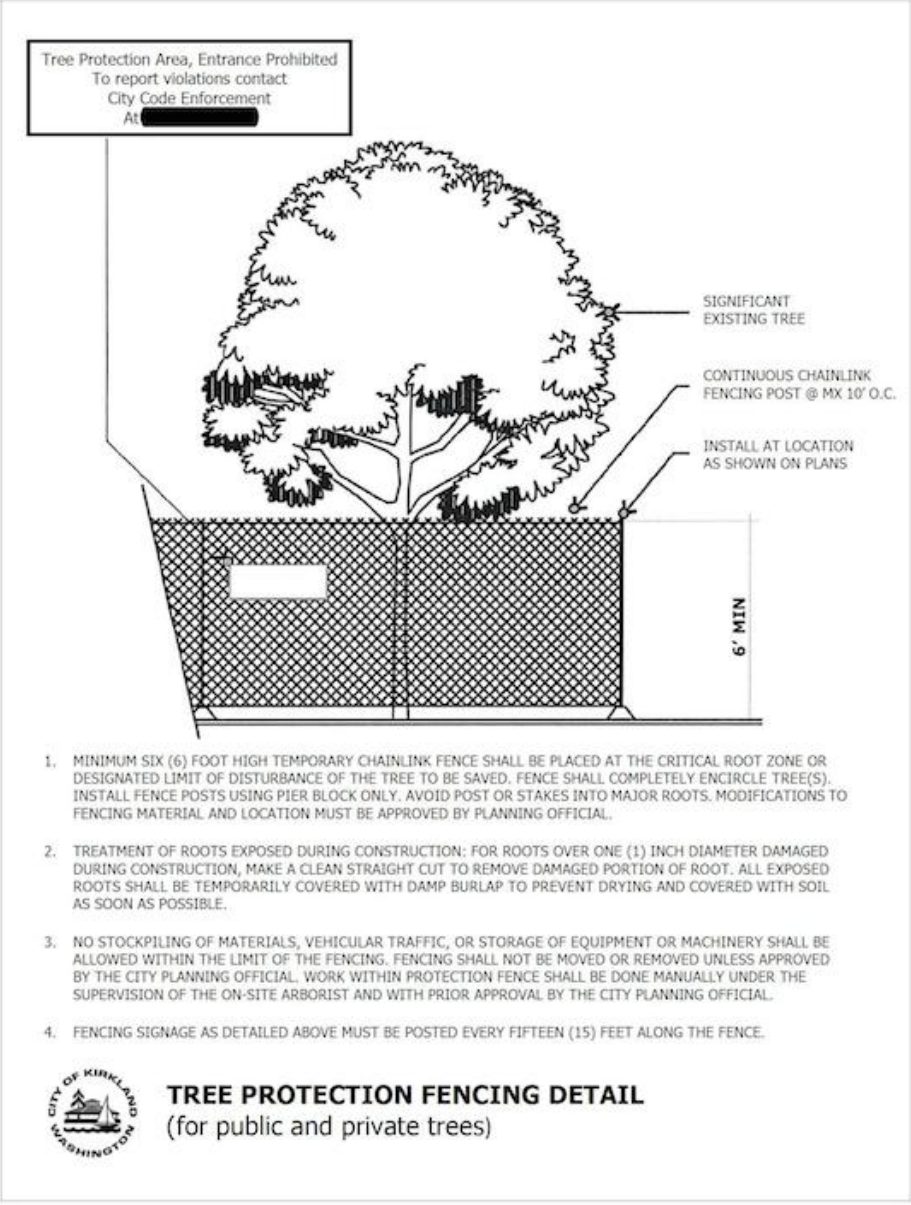
GREENFOREST, Inc.
By Favero Greenforest, M. S.

Favero Greenforest

Digitally signed by Favero Greenforest
DN: cn=Favero Greenforest, o, ou, email=greenforestinc@mindspring.com, c=US
Date: 2020.06.16 13:02:21 -07'00'

Date: June 16, 2020

Attachment No. 3 – Tree Protection Detail



Attachment No. 4 – Significant Tree Inventory

Proposed Action	Threshold for Exceptional (in.)	Category	Grove	≥ 24" DBH	Tree No.	DBH (QMD)	Species	Dripline (R')	Health	Structure	Comments on Condition	Tree Type
RETAIN	30”	Excep.	NO	YES	1	38”	Deodar cedar, *Cedrus deodar*	27’	1	2	Multiple stems, trunk covered in ivy	CE
REMOVE	36”	Large	NO	YES	2	26”	Alpine fir, *Abies procera*	12’	1	2	5' from existing house corner, growth obstruction	CE
Offsite	30”	Excep.	NO	YES	3	36”	Western red-cedar, *Thuja plicata*	18’				CE
Offsite	30”	Large	NO	YES	4	26”	Western red-cedar, *Thuja plicata*	16’				CE
Offsite	24”	Large	NO		5	20”	Western hemlock, *Tsuga heterophylla*	19’			5' from existing house foundation, growth obstruction	CE
Offsite	36”	Excep.	NO	YES	6	48”	Sweet cherry, *Prunus avium*	0			8' from existing house corner, growth obstruction. Several stems topped in past at PL	BD
Offsite	30”	Large	NO	YES	7	12,16,16” (27”)	Western red-cedar, *Thuja plicata*	14’				CE
Offsite	30”	Large	NO		8	22”	Douglas-fir, *Pseudotsuga menzeisii*	16’				CE
Offsite	24”	Large	NO		9	18”	Western hemlock, *Tsuga heterophylla*	0				CE

Farzad Ghazvinian
RE: Regulated Tree Inventory, 2928 72nd PL SE, Mercer Island, WA 98040
June 16, 2020

Attachment No. 5 – Tree Number Exhibit

SE 1/4 NW 1/4 SEC 12

PARCEL NO. 531510-0715
PARCEL NO. 531510-0725
PARCEL NO. 531510-0726
PARCEL NO. 531510-0728
PARCEL NO. 531510-0729
PARCEL NO. 531510-0736
PARCEL NO. 531510-0727

LOT 1
LOT 2
LOT 3

SET REBAR & CAP (38964) 4.00' OFFSET E
SET REBAR & CAP (38964) 0.5' OFFSET W
N88°26'10"W 75.05'
STUMP
PORTUGAL LAUREL/ ENGLISH LAUREL
HOUSE
PROPOSED FOR REMOVAL
AREA COVERED IN 9" WOOD CHIPS TO PROTECT ROOTS OF TREE #5 & #6.
AREA COVERED IN 9" WOOD CHIPS TO ALLOW SPACE FOR WORKERS AND ALSO PROTECT ROOTS OF TREE #3.
DECK
ONE STORY HOUSE
RH = 319.85'
FF = 309.4'
PROTECTION FENCING FOR TREE #3
PROTECTION FENCING FOR TREE #!
LOD FOR TREE #3: 13' TO WEST AT EXISTING CONCRETE; DRIPLINE TO THE NORTH AND SOUTH.
ROOF OVERHANG
CARPORT
SHED
SMALL TREE
INGRESS AND EGRESS EASEMENT
CB RIM = 308.71'
CB RIM = 308.59'
FOUND REBAR & CAP (TLNS)
FOUND REBAR & CAP (31453)
110.00' S88°26'43"E
75.12' N88°26'43"W
N1°17'17"E 147.57'
N1°15'37"E 147.56'
OHU
OHP
#1 PI34
#2 HE24
#3 CE38
#4 CE24
#5 HE20 HE18
#6
#7
#8
#9
DS6
39.6'
39.4'
40.2'
14.1'
15.3'
5.1'
36.3'
6.3'
13.3'
12.3'
12.9'
20.3'
13.4'
25.7'
55.6'
55.7'
37.4'
15.4'
16.0'
20.0'
0.8'
0.6'
0.1'
0.0'
0.3'
0.5'
0.2'
308
310
312