ArboristsNW, LLC
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(206) 779-2579

Jeffrey C. Rudd, President
Peak Builders Inc.
PO Box 328
Mercer Island, WA 98040

RE: **8247 E Mercer Way, Mercer Island, WA.**

A crew from ArboristsNW LLC inspected the trees affected by your project on your lot and the neighboring properties. Each tree now sports a numbered metal tag that corresponds to the attached site map and drawing. We will address the condition of one exceptional tree (32) that is hazardous and needs to be removed for your project. In addition, there will be discussions on the location of the tree protection fences and why they will protect the remaining trees while being located within the driplines of the several trees. Irrigation for the replacement trees will be part of the discussions.

First off is tree 32, a 31.8" DBH Big Leaf Maple. This tree has had one-half of its top break off. Two main scaffolding branches formed the top; one has broken off at the division of the main trunk into the two scaffolds. The tear/wound (3' long and 10" wide) has not compartmentalized, and a cavity is observable. The two scaffolds had an east-west orientation, and the western scaffold failed. This situation gives the tree a lean towards the existing home with all the weight pulling to the east. There are two more critical factors: the stump is undermined, with voids under the root crown, and decay was observed under the root crown. The second issue is that the soil on the west side uphill side of the tree is saturated. One sinks 4-5" into the ground when walking in this area. It is our professional opinion that this tree though exceptional tree, be removed and replaced with an appropriate species for the location and number of trees as required by the city. The replacement numbers and species are incorporated in the site drawing and within the Tree inventory form.

It will be noticed that several trees have tree protection fencing well within their driplines/CRZs. The reason for this and why the fencing should be allowed is because of existing structures that will protect the trees from damage. One, the existing asphalt driveways will not be touched. Then all along the edges of the driveway are raised rock walls. The trees are in elevated beds. These same structures surround the ROW trees, and roots and trunks are already buffered from possible damage and or soil compaction.

Irrigation for the replacement trees will be using two methods; drip irrigation connected to the home's water supply and Tree Gaters for the more isolated trees.

Drip irrigation, connected to the home's water supply, will have timer and moisture controls—timers for regular automatic watering. Moisture controls to stop watering when levels are already sufficient.

Tree-Gaters, are ten to fifteen-gallon bladders that are placed around the new tree. It slowly releases water over the course of two weeks. These are to be monitored by the project arborist until the trees are established to ensure the survival of the replacements.

Finally, to address the removal of two ROW trees (3-4). Both trees have a Bark Beetle infestation and pitch with frass weeping for the lower trunks. The current condition of the tree's canopy has good color. Still, there is no cure presently once a tree has been infested, so these trees can be removed and replaced now rather than waiting for them to deteriorate to become increasingly hazardous, getting a jump on the eventual replacement of the canopies. They both have deformed canopies due to the damage from the south-westerly winds that wrap around the island's southeast end.

Respectfully Submitted

12/22/22

Neal Baker
ArboristsNW.com
ISA Cert. PN1075A
TRAQ ISA (Tree Risk Assessment Qualified)
Member AREA & SOCA

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: 0

List tree numbers:

Number of trees 24" or greater (including 36" or greater): 1

List tree numbers: 32

Number of trees from Exceptional Tree Table (MICC 19.16) List tree numbers 11, 32: 2

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: 14 (A)

List tree numbers: 6, 7, 9-12, 14-19, 20-2, 25, 32

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

List tree numbers: 12, 19, 20-1, 28, 32

Percentage of trees to be retained ((A-B)/Ax100) note: must be at least 30%: 57.14 %

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: 3

List tree numbers: 03-05

Number of Large Regulated Trees in right of way proposed for removal: 2

List tree numbers: 03-04

Reason for removal: Bark Beetle infestation

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	7	14
Greater than 24" up to 36"	3		
Greater than 36" and any Exceptional Tree	6	1	6
		TOTAL TREE REPLACEMENTS	20

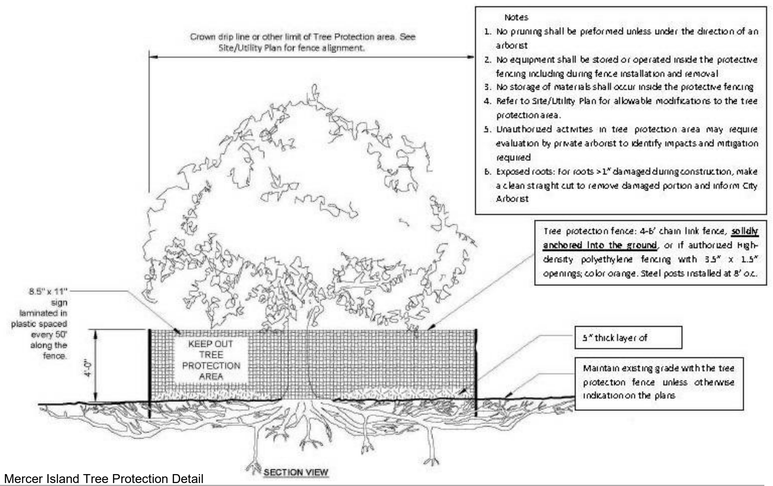
TREE #	TREE TYPE	DBH	DRIPLINE	CONDITION	RETAIN OR REMOVE	ADDITIONAL NOTES
1.	DEODORA (*CEDRUS DEODARA*)	33	31'	GOOD	RETAIN	EXCEPTIONAL TREE
2.	DOUGLAS FIR (*PSEUDOTSUGA MENZIESII*)	22	18'	GOOD	RETAIN	
3.	NORWAY SPRUCE (*PICEA ABIES*)	13	12'	FAIR	**REMOVE**	RIGHT OF WAY TREE - BEETLE INFESTED
4.	NORWAY SPRUCE (*PICEA ABIES*)	14	12'	FAIR	**REMOVE**	RIGHT OF WAY TREE - BEETLE INFESTED
5.	DOUGLAS FIR (*PSEUDOTSUGA MENZIESII*)	22	12'	GOOD	RETAIN	RIGHT OF WAY TREE
6.	PINE (PINUS)	20	18'	FAIR	RETAIN	THINNING CROWN
7.	DOUGLAS FIR (*PSEUDOTSUGA MENZIESII*)	17	12'	GOOD	RETAIN	
8.	DOUGLAS FIR (*PSEUDOTSUGA MENZIESII*)	23	15'	FAIR	RETAIN	MINOR BUTT SWELL
9.	THREE TRUNK OREGON ASH (*FRAXINUS LATIFOLIA*)	22.6	23'	GOOD	RETAIN	
10.	DOUGLAS FIR (*PSEUDOTSUGA MENZIESII*)	14	12'	GOOD	RETAIN	
11.	7 TRUNK JAPANESE MAPLE (*ACER PALMATUM*)	11.7	14'	GOOD	RETAIN	
12.	RED ALDER (*ALNUS RUBRA*)	22	24'	FAIR	**REMOVE**	
13.	RED ALDER (*ALNUS RUBRA*)	7	12'	POOR	**REMOVE**	
14.	WESTERN RED CEDAR (*THUJA PLICATA*)	13	14'	FAIR	RETAIN	
15.	WESTERN RED CEDAR (*THUJA PLICATA*)	7	14'	FAIR	RETAIN	
16.	WESTERN RED CEDAR (*THUJA PLICATA*)	17	14'	FAIR	**REMOVE**	
17.	CHERRY (*PRUNUS*)	10	10'	FAIR - POOR	RETAIN	
18.	DOUGLAS FIR (*PSEUDOTSUGA MENZIESII*)	32	16'	GOOD	RETAIN	EXCEPTIONAL TREE
19.	RED ALDER (*RED ALDER*)	11.5	14'		**REMOVE**	BIG LEAN DOWNHILL / IVY
20.	RED ALDER (*RED ALDER*)	12	14'	FAIR	**REMOVE**	LEANING DOWNHILL
21.	RED ALDER (*RED ALDER*)	12	14'	FAIR	**REMOVE**	LEANING DOWNHILL
22.	RED ALDER (*RED ALDER*)	7	13'	FAIR	**REMOVE**	
23.	BIG LEAF MAPLE (*ACER MACROPHYLLUM*)	27	25'	FAIR	RETAIN	
24.	BIG LEAF MAPLE (*ACER MACROPHYLLUM*)	7	14'	FAIR	RETAIN	
25.	RED ALDER (*RED ALDER*)	21	16'	POOR	**REMOVE**	TOP BROKEN OUT & HANGING
26.	BIG LEAF MAPLE (*ACER MACROPHYLLUM*)	7	12'	POOR	**REMOVE**	FALLING OVER HEAVILY SATURATED SOIL
27.	LAUREL (*PRUNUS LAUROCERASUS*)	8.6	12'		**REMOVE**	CROWN DAMAGE FROM T25 FAILURE
28.	RED ALDER (*RED ALDER*)	14	20'		**REMOVE**	TALL STUB DEAD
29.	BIG LEAF MAPLE (*ACER MACROPHYLLUM*)	6	10'	FAIR	**REMOVE**	
30.	BIG LEAF MAPLE (*ACER MACROPHYLLUM*)	6	10'	POOR	**REMOVE**	
31.	HOLLY (*ILEX*)	6	7'	GOOD	**REMOVE**	SATURATED SOIL
32.	BIG LEAF MAPLE (*ACER MACROPHYLLUM*)	31.8	20'	POOR	**REMOVE**	MAJOR CROWN ASYMMETRY SCAFFOLD FAILURE AND DECAY SATURATED SOIL LEAN TOWARD THE HOME. EXCEPTIONAL (HAZERDOUS)
33.	WESTERN RED CEDAR (*THUJA PLICATA*)	25	18'	GOOD	RETAIN	EXCEPTIONAL TREE

REPLACEMENT TREES:

STYLE:	TYPE:	QTY:
A	WESTERN RED CEDARS	6
B	OREGON ASH	2
C	SKY BLUE WESTERN WHITE PINE	5
D	VINE MAPLES	3
E	RED LACE LEAF MAPLE	4

NOTE:
PLACE TREEGATORS ON ALL REPLACEMENT TREES NOT SUPPLIED WITH DRIPLINE

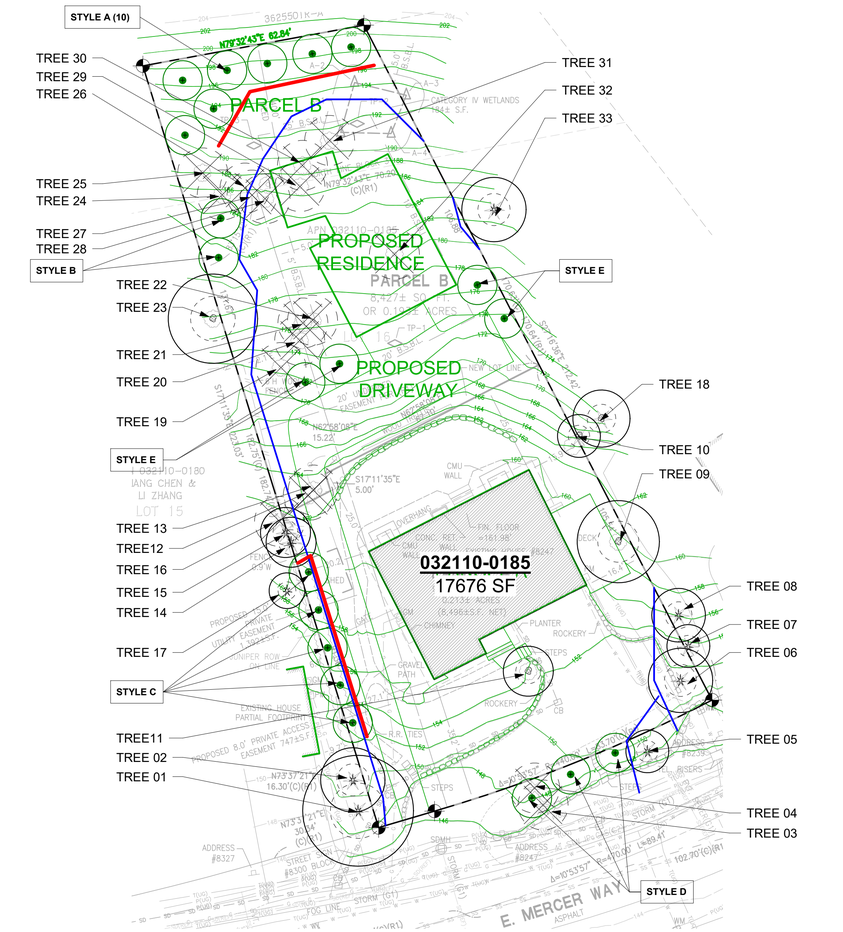
4 TREE LIST
1/4" = 1'-0"



3 Mercer Island Tree Protection Detail
1/4" = 1'-0"

	TREE DRIP LINE (DL)
	DIAMETER STANDARD HEIGHT (DSH)
	EVERGREEN TREE
	DECIDUOUS TREE
	TREE TO BE REMOVED
	TREE PROTECTION FENCING
	NEW TREE
	DRIPLINE - TIMERS AND MOISTURE SENSORS AT EACH DRIPLINE

2 SYMBOL LEGEND
1/16" = 1'-0"



ARBORISTS SITE PLAN
1" = 20'-0"

0' 10' 20' 80'

PREPARED BY:

NEAL BAKER
ARBORISTS NW.COM
ISA CERT. PN1075A
TRAQ ISA (TREE RISK ASSESSMENT QUALIFIED)
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arboristsNW

Arborists NW is a full spectrum arboricultural, consulting and landscape design and installation provider. When you think tree and landscape services, think Arborists NW.

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No.	Description	Date

RUDD SHORT PLAT

RUDD SHORT PLAT

ARBORIST TREE PLAN

Project number	22019
Date	--
Drawn by	CW
Checked by	NB
	X100
Scale	As indicated

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