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: none

List tree numbers: None

Number of trees 24" or greater (including 36" or greater): 3

List tree numbers: 2, 3, 6

Number of trees from Exceptional Tree Table (MICC 19.16): none

List tree numbers: none

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: 9 (A)

List tree numbers: 1-9

Number of Large Regulated Trees on site proposed for removal: 1 (B)

List tree numbers: 5

Percentage of trees to be retained ((A-B)/Ax100) note: must be at least 30%: 88 %

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: NA

List tree numbers: No trees effected by this project

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

List tree numbers: NA

Reason for removal: No trees to be removed or effected by this project

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	0	0
10" up to 24"	2	1	2
Greater than 24" up to 36"	3	0	0
Greater than 36" and any Exceptional Tree	6	0	0
		TOTAL TREE REPLACEMENTS	0

ARBORIST REPORT

Date:
October 9, 2020

Prepared for:
Mary Chen

Site Address:
9820 SE 35th Place
Mercer Island, WA

Prepared by:
Tom Quigley
ISA Certified Arborist, PN-655A
Tree Risk Assessment Qualified (TRAQ)

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OLYMPIC NURSERY, INC.

NARRATIVE Draft - 10/10/2020

Scope of Work
You have asked me to assess the current condition of the trees located on the above referenced property and to comment on potential impacts to those trees as a result of your planned residential remodel and the addition of a new detached garage structure. You have provided a site plan, labeled A0.1, dated 06-16-2020.

Methodology
The methods and techniques used for this assessment are as outlined in *Tree Risk Assessment* by Julian Dunster and as adopted by the International Society of Arboriculture (ISA). Additional standards, practices and specifications are as detailed in *ANSI Standard A300 (Part 9)-2017 Tree Risk Assessment a. Tree Failure*. The end goal of most assessments is to provide the owner or manager of the tree(s) with factual information, enabling them to make decisions about the management of the tree(s). For this particular assessment, I used a Level II Assessment that includes inspection of the root collar, lower trunk, and canopy of the tree as can be seen from the ground. Basic assessment does not include climbing the tree or excavation of soils to inspect root structure or condition.

I measured each tree for its Diameter at Breast Height (DBH), an industry standard of measuring trees at 4.5' above grade. Nine (9) trees were tagged with a metal tag for easier on-site reference.

I prepared a Tree Inventory detailing each significant tree by Tree Tag #, Species by Botanical and Common Name, Size (DBH), Drip-line Radius, Condition, with Comments as needed.

I completed the City of Mercer Island *Tree Inventory & Replacement Submittal Information* form and attached it hereto. I also reviewed the City's Tree Submittal Checklist and believe it to be complete.

I red-lined a copy of your site plan to indicate tree reference numbers, as well as the suggested location of tree protection measures (TPM).

Findings and Observations
I have visited the site three times in the past eight weeks. The subject site has nine (9) significant trees located on-site. There are three (3) trees located off-site but with overhanging limbs. There are many additional Leyland cypress trees that have been sheared and topped in order to form hedges. Because these trees have been topped and sheared, I did not inventory them as stand-alone trees, and except as noted below, potential root system impacts to any of the Leyland Cypress hedges appears to be un-likely.

There are three areas of the proposed construction that may impact root systems of nearby trees. Tree #5 is a Japanese maple that is located 30" away from the exiting front porch wood

pillar. Your plans detail that the porch will be extended in this area. Tree #5 will need to be removed. See Photo below.

There are two trees located off-site (OS) east of the proposed detached garage, Tree #OS 1 and #OS 2. The limbs of these two Leyland Cypress trees hang over the property line, where excavation is likely to approach the drip-line or closer. Further comment is provided below.

The third area of potential root system impacts is in the area of Tree #6 and #7. Tree #7 may be located off-site or may be on the property line. I had discussions with the architect about the extent of soil disruption in the area around these two trees. The area is currently covered with large concrete slab sections with additional comment below.

Considerations

Tree #5 will be removed so there is no need for additional assessment or comment.

Tree protection fencing for the protection of Tree #OS 1 and #OS 2 should be installed at the drip-line of the subject trees or as close to the proposed excavation as possible while still leaving room for construction activities. I would expect that any roots encountered in this excavation cut would be one-inch (1") in diameter, or less. Any roots encountered should be cleanly cut, using proper pruning tools and techniques. All exposed roots should be covered with moist soil or compost as soon as is reasonable, following the construction access needs. There appears to be no need to prune the limbs of the trees for building clearance purposes.

The area around Tree #6 and #7 is more difficult to assess for potential tree and/or root system impacts. It is reasonable to expect that significant roots are present under the existing slab concrete. The existing support columns for the upper deck most likely have footings that may have roots in close proximity. The only way to really know the extent of roots in that space is to explore the soils in that space. This can be undertaken as a preliminary measure or the assessment can be done at the time of the construction activities. Of primary concern is the need to understand any potential root system impacts that might compromise the nearby trees health or the ability of the nearby trees to remain standing, due to root system impacts. Any below-grade construction activity in this area should be monitored by a tree professional. Encountered roots that need to be removed should be removed using proper equipment and techniques as detailed in *ANSI Standard A300 (Part 8)-2013 Root Management.* If required root removal exceeds a tolerable level of root loss, resulting in an increased risk of failure, the nearby trees may need to be removed. Removal would trigger mitigation in the form of additional tree planting, whether on-site or off.

Conclusions

I have completed the Tree Inventory & Replacement Submittal Information sheet as required by the City of Mercer Island. You propose to remove only one (1) tree. You will be required to plant two (2) trees as mitigation for the removal of Tree #5. The above referenced site plan details the planting locations for the replacement/mitigation trees. (need to see revised site plan)

TPM for the site should be made of 4' tall orange poly fencing staked into place so as to prevent any access beyond the fencing. No material or equipment should be stored beyond the TPM. Signage should be attached to the fence every twenty-feet (20'), marking the area as a 'Tree Protection Zone'. The signage should be a minimum of 9" by 11" and should be weather resistant. TPM should be in accordance with standards as detailed in MICC 19.10.

This concludes the narrative report.

Photo below is Tree #5, located 30" away from existing porch pillar. Tree to be removed.

This report was prepared by Thomas Quigley, ISA certified arborist PN0655A. Tree Risk Assessment Qualified (TRAQ) by the International Society of Arboriculture (ISA).

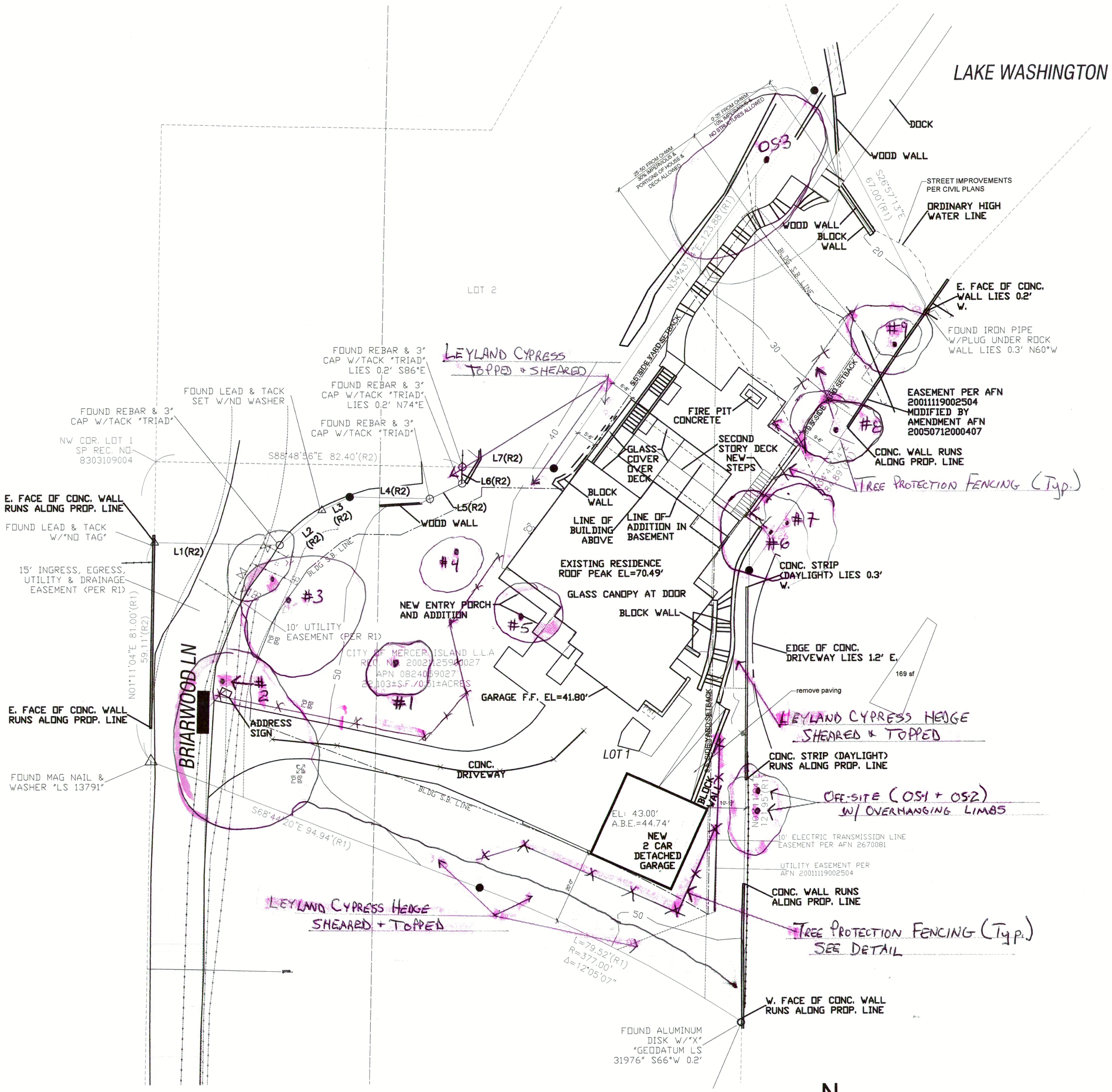
Mary Chen
9820 SE 35th, Pl., Merce Island, WA

September 2020

Thomas Quigley
ISA certified arborist PN0655A, TRAQ

Tree #	Species	DBH"	Drip-line	Condition	Comments	Rmv	Rtn
1	Prunus, flowering cherry	12.0	10' rad.	Good	Flowering cherry measured just below stem divide.		X
2	Cedrus Atlantica, Atlas cedar	29.5	21' avrge	Good	Typical of species, long extended limbs.		X
3	Quercus, Pin Oak	24.8	18'	Good	Partially in canopy of nearby Atlas cedar.		X
4	Acer palmatum, Japanese maple	12.5	9'	Good	No construction impacts.		X
5	Acer palmatum, Japanese maple	11.0	10'	Good	Planted 30" away from existing porch pillar. Construction impacts.	X	
6	Cedrus Atlantica, Atlas cedar	26.0	18' west	Good	Will need to be monitored for root sone impacts during excavation work. See written report.		X
7	Acer macrophyllum, Big leaf maple	17.4	15' west	Fair	In canopy of nearby Atlas cedar, may be on neighboring property.		X
8	Fraxines, Ash	21.0	12' avrg	Fair	Not in c=onstruction area		X
9	Fraxines, Ash	14.0	12' West	Fair	Not in c=onstruction area		X
	Off-site Trees with overhanging limbs						
OS 1	Cuppreseocyparis leylandii, Leyland	est 18"	12'	Good	Off-site with overhanging limbs. Will require TPM. See written report.		X
OS 2	Cuppreseocyparis leylandii, Leyland	est 21"	12'	Good	Off-site with overhanging limbs. Will require TPM. See written report.		X
OS 3	Populus nigra, Black cottonwood	est 44"	10-15'	Good	Near the lakeshore, no construction impact, no need for TPM.		X

9820 SE 35TH PLACE, MERCER ISLAND, WA. 98040



SITE PLAN

SCALE: 1" = 20'

TREE PROTECTION GUIDELINES

All remaining trees are to have a tree protection zone (TPZ) established before commencement of any construction or delivery activities. The following guidelines are to be observed and practiced during all

NO EXCAVATION BEYOND FOUNDATIONS

CALL 48 HOURS BEFORE YOU DIG 811 OR 1-800-424-5555