LAYTON TREE CONSULTING, LLC

ARBORIST REPORT/TREE PLAN

3038 61st Avenue SE
Mercer Island, WA

Report Prepared by:

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November 10, 2021

It's all about trees……

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Table of Contents

Attachments

Photos, pages 8 - 11

Tree Summary Table

Tree Locator/Conditions Map

Tree Plan Map

City Tree Inventory Submittal Worksheet

Assignment

Layton Tree Consulting, LLC was asked to compile an Arborist Report for a property on Mercer Island. The subject property is located at 3038 61st Avenue SE. My assignment is to prepare a written report on present tree conditions, and to provide appropriate recommendations for the protection of retained trees during development.

This report encompasses all of the criteria set forth under the City of Mercer Island's tree regulations, particularly Chapter 19.10 Trees, of the Unified Development Code Title 19. A 'Regulated' tree is any tree with a diameter of more than 10-inches or any tree that meets the definition of an 'Exceptional' tree.

Date of Field Examination: November 9, 2021

Description

Only two 'regulated' trees were identified and assessed on the subject property. One small tree or non-regulated tree was also assessed. These are a comprised of a mix of planted ornamental species. There is a small Japanese maple located near the southwest corner of the house and two small pear trees located close to the house on the house side.

A numbered aluminum tag was attached to the lower trunks of all assessed trees. These tag numbers correspond with the numbers on the Tree Summary Table and attached map. The Tree Summary Table provides detailed information for all of the subject trees.

There is a planted row of 13 young Leyland cypress trees on the neighboring property to south within a proximity of the property line. There are no other neighboring tree issues.

Methodology

Each tree in this report was visited. Tree diameters were measured by tape. The tree heights were measured using a Spiegel Relaskop. Each tree was visually examined for defects and vigor. The tree assessment procedure involves the examination of many factors:

- The crown or canopy of the tree is examined for current vigor/health by examining the foliage for appropriate color and density, the vegetative buds for color and size, and the branches for structural form and annual shoot growth; and the overall presence of limb dieback and/or any disease issues.

- The trunk or main stem of the tree is inspected for decay, which includes cavities, wounds, fruiting bodies of decay (conks or mushrooms), seams, insect pests, bleeding or exudation of sap, callus development, broken or dead tops, structural defects and unnatural leans. Structural defects can include but are not limited to excessive or unnatural leans, crooks, forks with V-shaped crotches, multiple attachments.

- The root collar and exposed surface roots are inspected for the presence of decay, insect damage, as well as if they have been injured or wounded, undermined or exposed, or the original grade has been altered.

Based on these factors a determination of condition is made.

Judging Condition

The three condition categories are described as follows:

Good – free of significant structural defects, no disease concerns, minor pest issues, no significant root issues, good structure/form with uniform crown or canopy, foliage of normal color and density, average or normal vigor, will be wind firm if isolated or left as part of a grouping or grove of trees, suitable for its location

Fair – minor to moderate structural defects not expected to contribute to a failure in near future, no disease concerns, moderate pest issues, no significant root issues, asymmetric or unbalanced crown or canopy, average or normal vigor, foliage of normal color, moderate foliage density, will be wind firm if left as part of a grouping or grove of trees, cannot be isolated, suitable for its location

Poor – major structural defects expected to cause fail in near future, disease or significant pest concerns, decline due to old age, significant root issues, asymmetric or unbalanced crown or canopy, sparse or abnormally small foliage, poor vigor, not suitable for its location

Observations

The subject trees are described as follows.

Tree #1 is a young, small, non-regulated cultivated variety of honey locust. It has developed good structural form and is of good vigor. No concerning issues were observed. Condition is 'good'.

Tree #2 is a young cultivated variety of corkscrew willow. It has developed the typical weeping form. The crown is somewhat asymmetric on the south side. Vigor is good. No concerning issues were observed. Condition is 'good'.

Tree #3 is a young to semi-mature variety of pear. It is comprised of two small diameter stems or trunks. Both have been topped in the past. Condition is 'fair'.

<u>Neighboring Trees</u>

There is a planted row of 13 young Leyland cypress trees on the neighboring property to south within a proximity of the property line. These are 6 to 8-inches in diameter and 20 to 25-feet in height. All have been recently topped and sheared on the south side. They are of good vigor. Condition is 'fair'.

There is a young variety of southern magnolia close to the east property line. It has developed fairly good form and is of good vigor. There is a +/- 3-foot-high concrete retaining wall beneath the fence on the east property line. This tree would not be impacted by ground disturbance on the subject property.

There are no trees within the right-of-way of 61st Avenue SE.

Discussion/Recommendations

The extent of driplines (farthest reaching branches) for the subject trees can be found on the tree summary table at the back of this report. The driplines have been delineated on the attached map for trees to be retained and/or protected. The information on the attached maps and in this report can be used by the project architect to create the final tree retention plan sheet for City submittal if needed.

The proposal is to retain Trees #1 and #2 and remove Tree #3. #1 and #2 are well-positioned for successful retention. There is a new driveway proposed roughly 6-feet from the trunk face of #1 and 4-feet from Tree #2. Both will need to be pruned back on the south sides to provide adequate clearance. Use a professional tree service who employs certified arborists to conduct this work. These are small, young trees and should be expected to survive the proposed impacts so long as work is carried out diligently. securely position a tree protection barrier at the dripline edge as shown on the attached map during the demolition phase of the project. Only move the protection fencing back to the new driveway edge when work there is ready to commence.

The new driveway will need to be constructed slightly above the existing grade or elevation. The existing grades appear conducive to this. To prepare the driveway sub-base for gravel, remove only the top sod layer (+/- 2-inches) using a sod-cutter. Keep heavy equipment outside of the dripline to prevent soil compaction and surface root damage. Use a tracked mini-excavator to add gravel within the dripline areas. Perform work when the soils are dry, if possible, to reduce the risk of soil compaction and root damage.

To adequately protect the neighbors Leyland cypress hedge row, position a tree protection barrier at 10-feet from the property line. Since these have recently been topped, it appears these will be maintained as a hedge row. To create a dense hedge, shear or prune back branches to about 4 to 5-feet from the tree trunks and routinely maintain growth at that point.

The project arborist shall be on-site to monitor any authorized excavation within the driplines of retained trees so necessary precautions can be taken to maintain these in a viable condition. Care shall be taken when working near trees to protect soils and surface roots that likely extend beyond the drip-line. Any roots damaged outside of tree protection areas shall be properly pruned at sound tissue prior to backfilling or finishing areas. Sound tissue is where the root is undamaged and the bark is completely intact with the root. This will help roots to seal off potential decay and allow them to sprout new growth. Any disturbed areas shall be watered weekly during the dry season of June through September.

Simply finish the landscape within the driplines of retained or protected trees by simply cutting and/or hand-pulling any unwanted vegetation and applying a +/- 4-inch layer of organic mulch. For the neighboring cypress trees, apply mulch directly over the existing gravel. Do not remove the gravel from within the dripline, doing so would remove a large percentage of feeder roots that will exist just below the ground surface. Keep irrigation trenches, large plantings or other improvements outside of the dripline/tree protection areas.

Tree Protection Measures

The following guidelines are recommended to ensure that the designated space set aside for the preserved trees are protected and construction impacts are kept to a minimum. Standards have been set forth under MICC 19.10.080. Please review these standards prior to any development activity.

- Tree protection fencing shall be erected per attached tree plan prior to moving any heavy equipment on site. Doing this will set clearing limits and avoid compaction of soils within root zones of retained trees.

- Excavation limits shall be laid out in paint on the ground to avoid over excavating.

- Excavations within the driplines shall be monitored by a qualified tree professional so necessary precautions can be taken to decrease impacts to tree parts. A qualified tree professional shall monitor excavations when work is required and allowed within the drip-line or critical root zone.

- To establish sub grade for foundations, curbs and pavement sections near the trees, soil shall be removed parallel to the roots and not at 90-degree angles to avoid breaking and tearing roots that lead back to the trunk within the drip-line. Any roots damaged during these excavations should be exposed to sound tissue and cut cleanly with a saw. Cutting tools should be sterilized with alcohol.

- Areas excavated within the drip-line of retained trees shall be thoroughly irrigated weekly during dry periods.

- Preparations for final landscaping shall be accomplished by hand within the drip-lines of retained trees. Large equipment shall be kept outside of the tree protection zones at all times.

Tree Replacement

Replacement trees will be required per 19.10.070 Tree Replacement. The replacement ratios per tree removed are as follows:

Trees less than 10-inches in diameter = 1:1
Trees 10-inches to 24-inches = 2:1
Trees 24-inches to 36-inches = 3:1
Any ‘Exceptional’ tree = 6:1

Two replacement trees will be required for the removal of Tree #3. Consult with your City planner for final tree replacement requirements. All replacement trees are to be planted on site. Replacement trees shall be at a minimum – 1 ½ inch caliper for deciduous species and 6 feet in height for coniferous species.

The most appropriate locations for tree replacement are on the undisturbed perimeters of the site. Perimeters can be enhanced with native tree plantings of coniferous species to provide screening between residential properties and to maintain the wooded character of the area. Recommended species include western red cedar, grand fir, shore pine and Douglas-fir.

Arborist Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training and experience to examine and assess trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risks associated with living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that grow, respond to their environment, mature, decline and sometimes fail in ways we do not fully understand. Conditions are often hidden within trees and below ground.

Arborists cannot guarantee that a tree will be healthy and/or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed. Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Photo Documentation

Trees #1 and #2 in northwest corner of property

Trees #1 and #2 in northwest corner of property

North side of existing house, looking west from backyard, #1 and #2 in background

Tree #3 on right, neighbors Leyland cypress in background

Tree #3 on left, neighboring Leyland cypress on right

Neighboring Leyland cypress

Back or east side of property, neighboring magnolia opposite fence and concrete retaining wall

Small Japanese maple at house corner

Layton Tree Consulting LLC

For: Jabooda Homes
Site: 3038 61st Ave SE - Mercer Island

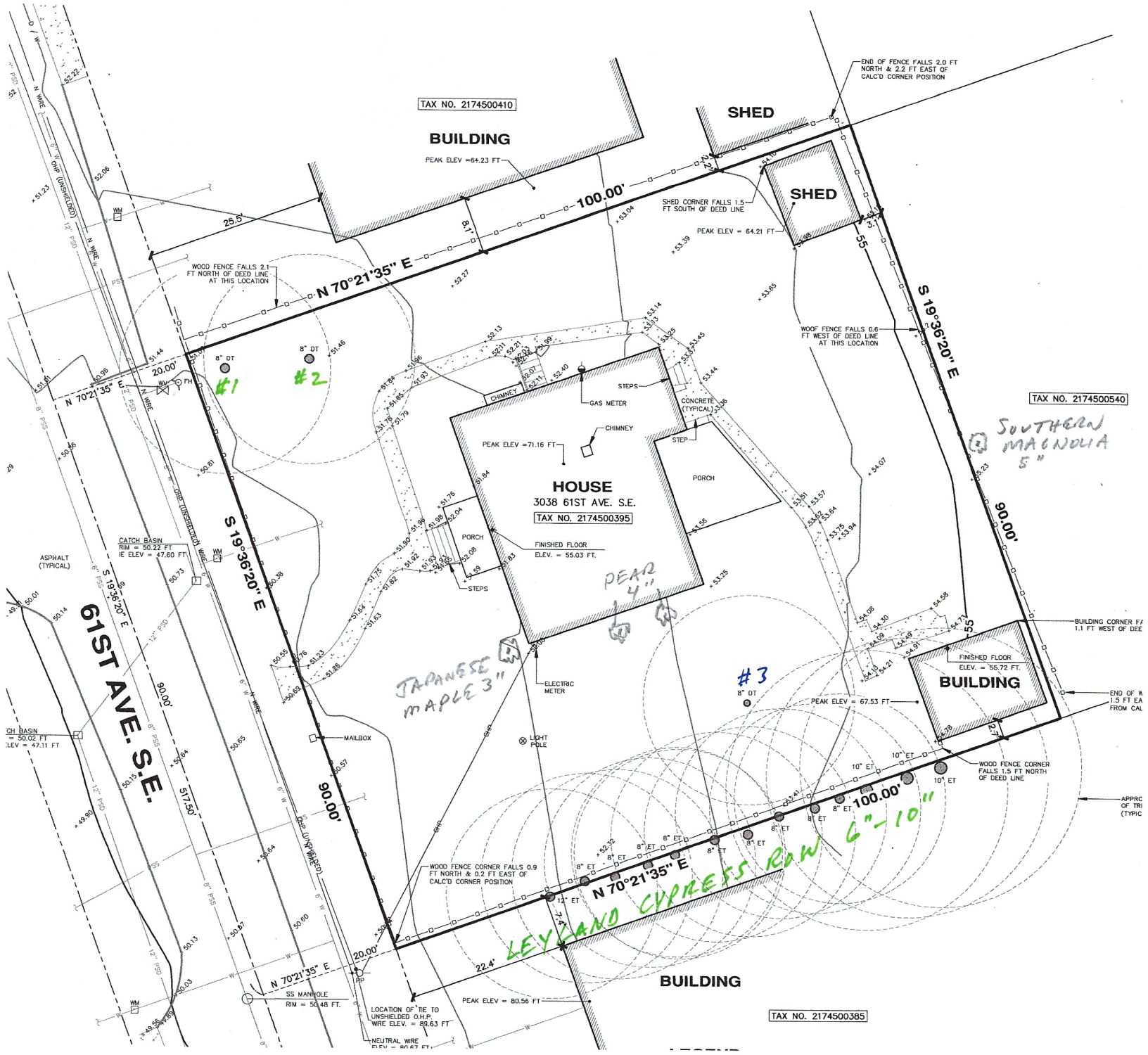
Tree Summary Table
Date: 11/9/2021

Tree/ Tag #	Species Common	Species Scientific	DBH (inches)	Height (feet)	DripLine (feet)				Condition	Exceptional Yes/No	Comments	Proposal
					N	S	E	W				
1	honey locust cv.	*Gleditsia triacanthos*	6,4 (7)	26	8	12	12	8	Good	No	contorted variety, good form,good vigor	Save
2	corkscrew willow cv.	*Salix matsudana*	7,7,4 (11)	20	10	12	10	8	Good	No	typical weeping form, good vigor	Save
3	plum	*Prunus americana Marsh.*	7,7 (10)	15	8	8	6	8	Fair	No	topped in the past, decent vigor	Remove
NEIGHBORING TREES												
101	Leyland cypress	*X Cupressocyparis leylandii*	6-10-inch	20-25-feet	10	NA	NA	NA	Fair	No	planted row of 13 trees, all recently topped	Protect

Drip-Line measurements from face of trunk
cv. - cultivated variety
Calculated DBH: the DBH in parenthesis is the square root of the sum of the dbh for each individual stem squared (example with 3 stems: dbh = square root [(stem1)2 +(stem2)2 +(stem3)2]).
TBD - to be determined

3038 61ST AVE SE

TREE LOCATOR / CONDITIONS MAP

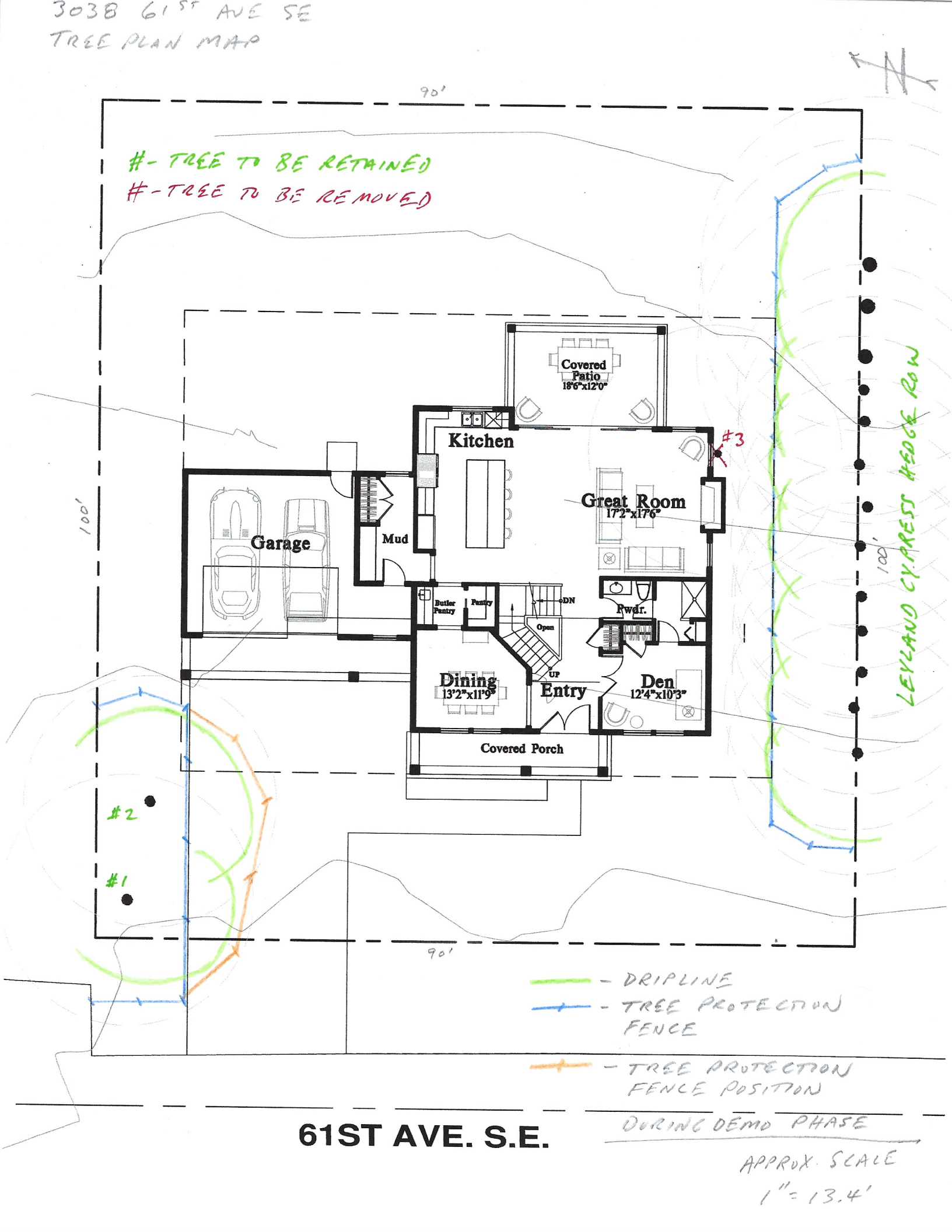


TREE CONDITIONS

- GOOD

- FAIR

3038 61ST AVE SE
TREE PLAN MAP



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MERCER ISLAND 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): 0

List tree numbers:

Number of trees from Exceptional Tree Table (MICC 19.16): 0

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: 2 (A)

List tree numbers: #2 and #3

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

List tree numbers: #3

Percentage of trees to be retained ((A-B)/Ax100) note: must be at least 30%: 50 %

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: 0

List tree numbers:

Number of Large Regulated Trees in right of way proposed for removal: 0

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	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	2

no replacement tree is needed if the tree fits all of the following;
Less than 10 inches in diameter, not an exceptional tree, and not a replacement tree from another tree permit. *