



# LAYTON TREE CONSULTING, LLC

## ARBORIST REPORT

6922 SE 33<sup>rd</sup> Street  
Mercer Island, WA



**Report Prepared by:**

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**February 11, 2022**

*It's all about trees.....*

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## Attachments

Photos, pages 8 - 11

Tree Summary Table

Tree Locator Map

Tree Inventory & Replacement Submittal Information' 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 6922 SE 83<sup>rd</sup> Street. My assignment is to prepare a written report on present tree conditions, and to provide appropriate recommendations for the protection of retained trees during re-development (demolition of existing structure and the construction of a new single-family residence) of the property.

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: February 9, 2022

## Description

Two 'regulated' trees were identified and assessed on the subject property. These are comprised of two white birch trees in the northwest corner of the property. There is a small, non-regulated tree in the northeast corner of the property.

Subject trees were identified with a numbered aluminum tag attached to the lower trunk. These numbers correspond with the numbers on the Tree Summary Table and attached map.

Two neighboring trees were also assessed. These are located off of the northwest and northeast property corners. There are no trees within the right-of-way of SE 33<sup>rd</sup> Street.

## 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

## Judging Retention Suitability

Not all trees necessarily warrant retention. The three retention suitability categories as described in ANSI A300 Part 5 (Standard Practices for the Management of Trees During Site Planning, Site Development and Construction) are as follows:

Good – trees are in good health condition and structural stability and have the potential for longevity at the site

Fair – trees are in fair health condition and/or have structural defects that can be mitigated with treatment. These trees may require more intense management and monitoring, and may have shorter life-spans than those in the “good” category.

Poor – trees are in poor health condition and have significant defects in structure that cannot be mitigated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess characteristics that are incompatible or undesirable in landscape settings or be unsuited for the intended use of the site.

## Observations

Trees #1 and #2 are mature European white birch, located in the northwest corner of the property. These have been topped and sheared, and maintained at a height of roughly 18-feet for many years now. See pictures below. Both appear to be of fairly good vigor. Tree #1 has significant internal decay within the lower trunk. This is evident by a cavity on the southwest side of the lower trunk. The lower trunk of #2 appears sound. These are in ‘fair’ condition.

Tree #3 is a young to semi-mature English hawthorn in the northeast corner of the property. It has also been topped in the past. It is in ‘fair’ condition.

## Neighboring Trees

Tree #101 is a semi-mature Norway spruce located off of the northwest property corner. It has been repeatedly topped in the past. It is situated on a grade or elevation of about 4-feet below that of the subject property and roughly 8-feet off of the property line. It is of good vigor. Condition is 'fair'.

Tree #102 is a semi-mature southern magnolia located close to the east property line off of the northeast corner. It has also been topped in the past. It is situated on a grade or elevation approximately 5-feet above that of the property. There is a steep slope or bank on the east perimeter of the property. It is of good vigor and appears to have developed good structural form when viewed from the subject property. Condition is rated as 'fair' due to the topping.

The majority of trees in the neighborhood have been topped in the past to preserve desirable views.

### 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 information in this report can be used by the project architect to create the final tree retention plan sheet for City submittal, once the final site design has been completed. Once a final design has been developed, more specific tree protection measures can be provided if needed.

The recommended Limit of Disturbance (LOD) measurements can also be found on the tree summary table for trees that may be potentially impacted by proposed improvements. The LOD measurements are based on species, age, condition, drip-line, prior improvements, proposed impacts and the anticipated cumulative impacts to the entire root zone. This is the maximum allowable encroachment. Encroachment (soil excavations) beyond the LOD is likely to cause decline or compromise long-term structural stability. These measurements shall be referenced when siting structures and utilities and determining tree retention feasibility.

Trees #1 and #2 are well-positioned for successful retention. These should continue to be periodically trimmed or sheared to maintain their current height. Position tree protection fencing at the dripline for adequate protection. Care shall be taken when working near trees to protect soils and surface roots that likely extend beyond the dripline. Cover areas outside of the protection zone with a +/- 6-inch layer of wood chips or hog fuel to protect soils from compaction and damage to surface roots. Tree #2 can be pruned back if desired to provide more clearance. Remove no more than 15% of the total live branches.

Any roots damaged during site work outside of the tree protection area shall be pruned clean 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 near protected trees shall be watered weekly during the dry season of June through September. This will help to create a favorable environment for new root growth and reduce the overall stress associated with root loss and disturbance.

Neighboring Tree #101 will not be impacted by re-development of the property. To adequately protect neighboring Tree #102, maintain the existing grade within the dripline. Position a protection barrier a few feet beyond the dripline.

Care shall be taken to continue to protect trees during finish landscape work. Any landscape work within the protection areas shall be accomplished using hand-labor only. Keep irrigation trenches, large plantings or other improvements outside of the tree protection areas.

Tree #3, the small non-regulated tree can be removed if desired. If removed, one replacement tree would be required.

### 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 has been authorized or approved within the dripline 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 dripline. Any roots damaged during these excavations shall be hand-excavated and exposed to sound tissue and cut cleanly with a saw prior to backfilling or finishing areas.
- 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 driplines of retained trees. Large equipment shall be kept outside of the tree protection zones at all times.

### Tree Replacement

Replacement trees will not be required per 19.10.070 Tree Replacement. Replacement or supplemental trees may be required as part landscape code requirements. Consult with your City planner on any required supplemental tree planting on the property.

If Tree #3 is removed, one replacement tree would be required.

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.

## 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, neighboring Tree #101 on left



Trees #1 and #2 in northwest corner of property





Tree #1, noteworthy trunk decay, cavity



Trees #1 and #2, neighboring Tree #101 in background



Tree #3, neighboring Tree #102 in background



Back of property looking eat to Tree #3, large Camellia shrub at corner of house



Looking north to northeast property corner



Neighboring Tree #102, protect soils within dripline





**Layton Tree Consulting LLC**

For: Erin Jacobsen  
 Site: 6922 SE 33rd ST - Mercer Island

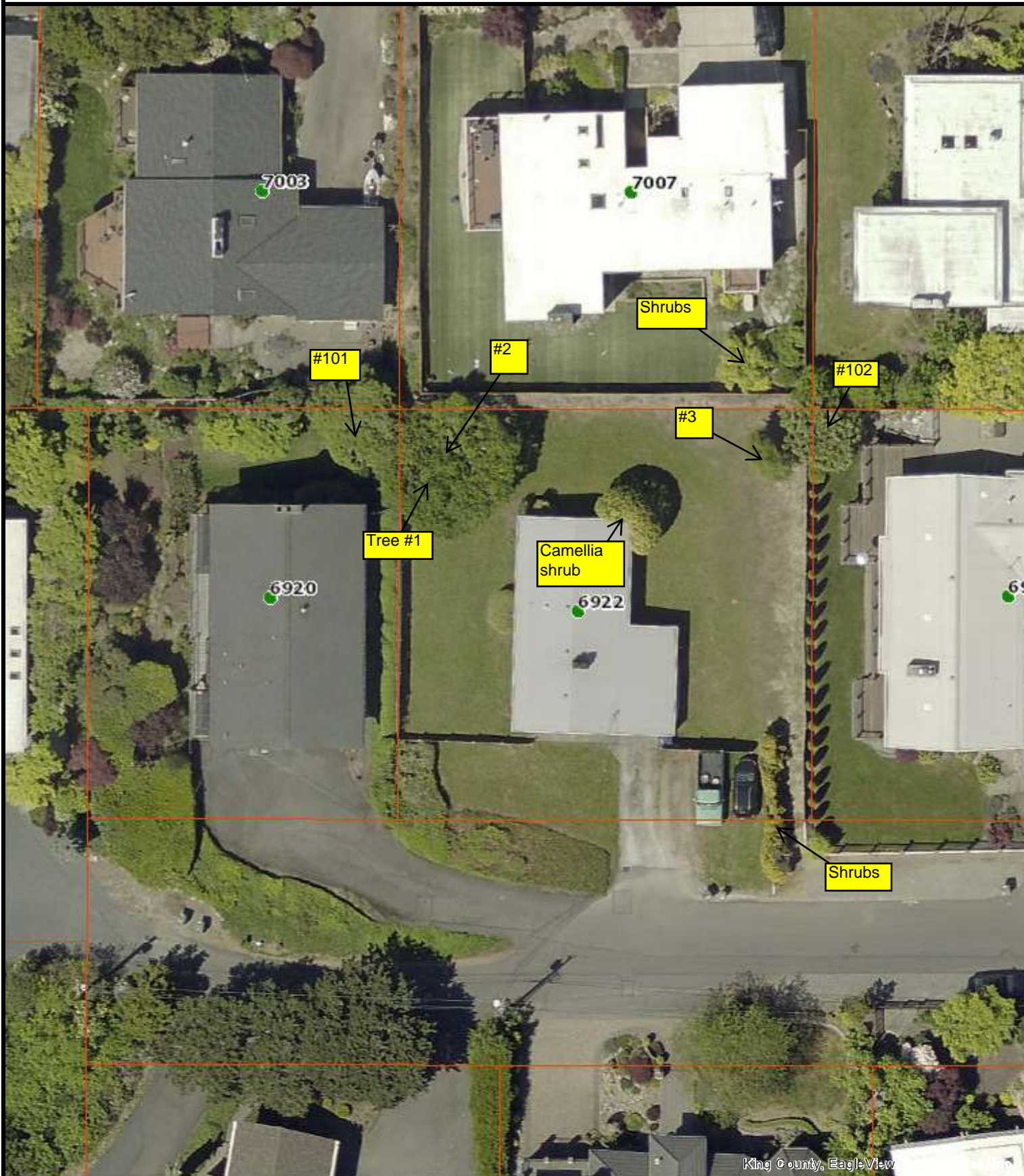
**Tree Summary Table**

Date: 2/9/2022

| Tree/<br>Tag #    | Species<br>Common Name | Species<br>Scientific Name  | DBH<br>(inches) | Height<br>(feet) | Drip-Line / Limits of Disturbance<br>(feet) |       |       |       | Condition | Regulated<br>Yes/No | Exceptional<br>Yes/No | Comments  | Proposal |
|-------------------|------------------------|-----------------------------|-----------------|------------------|---|-------|-------|-------|-----------|---------------------|-----------------------|---|----------|
|                   |                        |                             |                 |                  | N   | S     | E     | W     |           |                     |                       |   |          |
| 1                 | European white birch   | <i>Betula pendula</i>       | *22             | 18               | 10  | 16/14 | 10/12 | 10    | Fair      | Yes                 | No                    | routinely topped, extensive trunk decay           | Remove   |
| 2                 | European white birch   | <i>Betula pendula</i>       | 18              | 18               | 10  | 18/14 | 16/14 | 6     | Fair      | Yes                 | No                    | sound trunk, routinely topped                     | Retain   |
| 3                 | English hawthorn       | <i>Crataegus laevigata</i>  | 8               | 16               | 4   | 7     | 8     | 4     | Fair      | No                  | No                    | topped, maintained at small height                | Retain   |
|                   |                        |                             |                 |                  |   |       |       |       |           |                     |                       |   |          |
|                   |                        |                             |                 |                  |   |       |       |       |           |                     |                       |   |          |
| Neighboring Trees |                        |                             |                 |                  |   |       |       |       |           |                     |                       |   |          |
| 101               | Norway spruce          | <i>Picea abies</i>          | 16              | 22               | NA  | 10    | 10    | NA    | Fair      | Yes                 | No                    | topped, approx 8 feet off pl below retaining wall | Protect  |
| 102               | Southern magnolia      | <i>Magnolia grandiflora</i> | *16             | 12               | NA  | 10/10 | NA    | 10/10 | Fair      | Yes                 | Yes                   | approx 2 feet off fence, topped                   | Protect  |

\* - caliper measurement at one-foot above ground

Drip-Line and Limits of Disturbance measurements from face of trunk



King County, EagleView Imagery

The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. King County shall not be liable for any general, special, indirect, incidental or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

Date: 2/9/2022

Notes:



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