ARBORIST REPORT

Date: January 30, 2020 Addendum to report dated 11/6/2019

Prepared for: Kristi Lanier David Pfleeger

Site Address: 7107 78th Ave SE Mercer Island, WA

Prepared by: Tom Quigley ISA Certified Arborist, PN0655A Tree Risk Assessment Qualified (TRAQ)

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Addendum to report dated November 6, 2019

Scope of Work

This 'addendum' is to the report dated 11/6/2019 and as requested by City of Mercer Island arborist John Kenney. This addendum identifies certain trees located at the above referenced site, said trees were previously noted for structural defects or other conditions that warrant additional assessment and consideration.

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*.

I revisited the site January 22, 2020, together with John Kenney. Together we identified nine (9) trees that had previously been assessed as having structural defects, whereby associated risk of complete or partial failure might impact future construction workers or the future completed structure. Those nine trees are listed here with comments. These nine (9) trees were all included in the original Tree Inventory and are detailed here with additional assessment notes below.

Tree					
#	Species	DBH"	Cndtn*	Comments	
440	Acer macrophyllum, Big leaf maple	23.7	Fair	Buttress wood decay, deadwood in canopy	Retain
441	Thuja plicata, Western red cedar	11.8	Fair	Less dense due to overhead canopy of tree #440	Retain
449	Acer macrophyllum, Big leaf maple	11.5	Poor	Dead top, leans SW away from subject site	Retain
450	Acer macrophyllum, Big leaf maple	18.3	Poor	Leans SW away from subject site.	Retain
452	Acer macrophyllum, Big leaf maple	16.4	Poor	Leans SW away from subject site.	Retain
461	Acer macrophyllum, Big leaf maple	12.2	Poor	Located off-site.	Retain
480	Acer macrophyllum, Big leaf maple	13.4	Good	Deadwood in canopy typical of species.	Retain
481	Acer macrophyllum, Big leaf maple	13	Good	Deadwood in canopy typical of species.	Retain
484	Pseudotsuga menziesii, Douglas fir	19.9	Poor	Deadwood in lower limbs, full top growth.	Retain

Tree #440 is in Fair to Good condition. Dead limbs should be cleaned from the canopy in order to improve workplace safety and to provide less risk to the future structure.

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Tree #449, 450, 452 lean away from the subject property, thereby a 'Low' risk of failure associated with striking the subject site. Off-site targets are limited to an open lawn area of the neighbor's yard. While some level of risk exists to that specific target (neighbor's yard), that specific target was not assessed for risk related considerations. Deadwood should be removed as possible.

Tree #480 and #481 should be crown cleaned to remove dead limbs.

Tree #484 was originally listed as having a dead top. The top is there but the tree's vigor is Poor. It may do better with time or with additional sun-light available as the result of the removal of certain nearby trees.

In addition to the above detailed trees, John Kenney expressed concern for the possibility of damage to trees designated for retention, as a consequence of tree removal operations. Additional concern regarded certain trees that are scheduled for retention; said trees containing one or more dead or broken limbs that could prove hazardous in certain conditions. To address those specific concerns, as well as other standard pre-cautions, the following mitigation measures should be adopted and attached to any clearing and grading plans or other relevant site plan sheets.

- A certified arborist, not employed by the tree removal contractor, shall be on-site during all tree removal or pruning activity. Pruning shall include the removal of dead limbs or obvious 'hangers' throughout the site, with special attention to trees located immediately around the work zone. 'Hangers' are defined as limbs that have detached from the main structure but have become lodged in the tree, often referred to as 'widow-makers'.
- Tree Protection Fencing (TPF) should be installed after the removal of the trees designated for removal but before any soil disturbance or excavation work. The on-site arborist shall verify the proper location of the TPF, prior to, or in coordination with the fencing contractor.
- TPF should consist of 6' tall chain-link fencing panels placed in concrete blocks, installed to create a tree protection area as detailed in Mercer Island Tree Protection Fencing pdf. Signage should be placed every 20' along the fence-line stating that the area is a 'Tree Protection Area' and that "No soils, Building Materials, or Equipment is to be Stored Inside the Protection Area". Signage should be 8.5" X 11" and made to be weather-resistant.
- A certified arborist shall be on-site during initial excavation that approaches TPF or any excavation that will occur under the drip-line or canopy of any tree. When roots are exposed by excavation, care should be taken to cut or prune these exposed roots, using proper pruning equipment and practices. Pruning practices are as detailed in ANSI A300 (Part 1)-2017 Pruning and ANSI A300 (Part8)-2013 Root Management.
- Exposed roots and severed roots should be covered with moist soil or soil/compost mixture as soon as is reasonable following excavation and completion of the associated work in the excavated area.
- The tree protection detail provided by the City requires 5" of mulch inside tree protection areas. This would not be needed on this site, as the entire site is covered

with years of organic debris build-up from the trees natural shedding processes. If practical, the chipped-up limb and tree chips could be spread on-site for further soil enhancement and carbon sequestration.

- Replacement trees should be planted per Mercer Island planting practices. The location of the replacement trees should mimic a natural planting. Planting should occur in the late fall or winter months in order to provide an initial period of cool, moist soil conditions for optimum planting conditions.
- If this work is undertaken in the summer months, additional hydration of impacted root systems would be beneficial to the impacted tree(s). Drip irrigation would be the best approach.

Conclusions

Tree protection for the trees scheduled for retention will be possible with close monitoring of the tree removal process. Retention and preservation of certain trees will be successful provided care is given to the excavation and treatment of roots that will likely be encountered.

The trees on this site should be re-assessed one year after completion of the foundation and utility work, or if there are any changes in the outward appearance of the trees, or if any trees are impacted by a storm event.

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