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September 12, 2018

Jon Rose
Olympic Property Group
19950 7th Ave. NE, Suite 200
Poulsbo, WA 98370

Re: Suzuki property preliminary tree assessment, Bainbridge Island, WA

Dear Mr. Rose:

Thank you for having me assess trees prior to development activities at the proposed development site on the Suzuki property on Bainbridge Island. To evaluate the trees addressed in this report I combined my field experience and education with current accepted practices as defined by the American National Standards Institute (ANSI) and the International Society of Arboriculture (ISA).

In this case, the tools I use to make an assessment are limited to a diameter tape, binoculars, a rubber mallet and hand trowel. A visual tree assessment and other methods are only conclusive for the day of inspection and do not guarantee that conditions will remain the same in the future.

I was asked by Mr. Davis of davis studio Architects to assess trees on the Suzuki property for health and potential risk to proposed development areas. On September 11, 2018 I completed a Level 2 assessment to gather specific data on many individual trees on the northwest, west, southwest and south property lines. Although many individual trees were also assessed within the potential development area, some were only generally evaluated by a Level 1 assessment and recommendations for these areas are general. Recommendations will be added as the site design for this area is finalized. All levels of tree assessment are detailed in an attachment to this report.

The development site has several distinct sections of trees growing in varying conditions. These areas are described below and are shown on Map 1.

Area 1 North property line and Northwest corner

Trees growing in this area are nearly all younger Douglas-fir (*Pseudotsuga menzeisii*). Surveyors marked significant trees in this area with white flagging. Only a few of the numerous standing trees measure greater than ten inches diameter at breast height (DBH).

I specifically assessed a sample group of the surveyed trees along the northwest corner of the site. In my opinion, this portion of trees is representative of the entire stretch of firs standing on

the north property line as well as a good portion of the northeastern proposed development area (Photo 1).

The fir trees originally were planted in a dense array typical for forestry purposes and then left unmanaged. Many standing small dead trees are leaning against living trees and fallen trees litter the ground. Except in a small portion of the center of the north property line there is little to no groundcover vegetation between tree stems.

Trees in the sample area and along the northern property line as a whole are in poor to fair condition. Since they have grown so close together most of the trees will not have strong or wide growing root zones. Also, most of the trees have a very small live crown ratio, that is, the amount of living green foliage growing on the stem. All of the living foliage is growing at the very top of each stem.

Retaining single or even small groups of trees in this area and expecting them to remain windfirm would be an incorrect assumption. If any single tree in this area was exposed by clearing around it it would have a high potential of blowing over. Exposed small groups of trees would also suddenly have a high potential of root failure that could impact the surrounding area for several years after being exposed. I strongly recommend that the fir trees in the sample area and those along the northern property line be considered for removal. Replanting the area in which they grow can distinctly improve this portion of vegetation along the northern property border to provide a healthier vegetated buffer area between the new development and New Brooklyn Road.

The northwestern portion of the property has a few sporadically planted Douglas-fir similar to those mentioned above but is primarily dominated by numerous red alder (*Alnus rubra*) trees. Most of them have thick English ivy growing up a good portion of their trunks and covering the ground around their bases (Photo 2). The extent of the ivy on the ground and growing up trees reaches west to trees standing near the walking path and to the south approximately one third down the western property line.

Most of the alders in this area are only in fair condition. None of them have very straight trunks and few have more than 30 percent live crown. Although younger in age none will develop into windfirm straight trees and will be particularly vulnerable to weather conditions if exposed by nearby clearing.

Removing the ivy from this area would significantly improve the landscape and reduce the possibility of trees being pulled over by ivy weight. However, removing ivy from the trees and the landscape would be an endeavor difficult to accomplish by machinery without damaging root and trunks of trees already only in fair condition. Work to remove ivy by hand would be less damaging but a large undertaking that could ultimately take several years to achieve.

As clearing limits on this portion of the property are defined, care will have to be taken in determining which if any alder and fir are left close to the limits. As the firs in the northern

section, most of these alder will not be windfirm after the landscape around them is dramatically opened up, particularly those that have ivy growing up their trunks.

Tree removal occurring further than the clearing limits should be expected. Trees that should be included in the initial clearing efforts can be determined after clearing limits are finalized.

It is my opinion that it is more feasible and better in the long term to remove the alders and ivy and to replant the area with a dense mix of native deciduous and evergreen tree and shrub species.

Area 2 West property line

This area transitions from planted younger trees to a remnant of more mature native trees and understory vegetation. As one heads south along the property line the stand becomes healthier.

I evaluated few trees along this area only assessing those which stood close to the clearing limits. These included some younger Douglas-fir, red alder and one bigleaf maple most of which were in fair condition. As clearing limits on this portion of the property are determined, care will have to be taken in determining which if any trees should be retained close to the limits. Tree removal occurring further than the clearing limits should be expected.

Area 3 Southeast corner

The southeast corner of the development area includes and abuts an area of native trees appearing to be older than those anywhere else on the entire development parcel. Tree species here mainly include Douglas-fir and some Western red cedar (*Thuja plicata*) with few younger red alder mixed in. Most of the trees close to or on the clearing limits are in poor condition and should not be retained.

Douglas-fir trees growing southwest of the clearing limits are mainly healthy but there is a small area of root rot located approximately fifty feet southwest of the southwest corner of the clearing limits. Trees in this area should be closely re-assessed as the site plan is finalized. It is possible that trees near the root rot area will have to be removed or very closely monitored throughout the project construction and into the future by the new homeowners.

Area 4 South property line to Proposed Development area

Trees bordering the clearing limits from the southwest corner of the project area to the edge of the proposed development area are sparsely spaced, young and mainly in poor condition. They include small Douglas-fir and red alder and one mature cottonwood. Mature holly shrubs grow rampant in many areas and are the main understory vegetation in some areas.

Overall this is not a healthy portion of the property. Trees appear stressed and much of the native groundcover is being smothered by holly. Trees growing directly along or just south of the clearing limits are not in good condition and should not be considered windfirm if the clearing limit remains as currently located.

The area just south of the clearing limits is a very good candidate for removal of poor condition

trees, removal of the holly and replanting with a mixture of deciduous and evergreen native trees and shrubs. This can significantly improve the vegetation overall as well as providing a better buffer between humans and wildlife areas.

Area 5 Southeast corner including the potential development area

This area includes two distinct types of forest. The northern portion includes small groups of relatively young planted Douglas-fir and the southern section has older native trees growing as a partial forest remnant.

Trees growing in the northern half of the potential development area are close to the same age and condition as those firs growing along the north property line. They were planted after strawberry fields were unused with the intention to cull later for forestry purposes. Although slightly larger in size, any single one of these trees is only in fair condition and should not be considered windfirm if exposed.

If retained, single standing or groups of trees would need significant care to ensure they were not damaged during construction followed by care and monitoring after construction was completed. Development and building is strongly discouraged within one and a half times their trunk heights (approximately 60-80 feet tall). Even given a wide berth of tree protection and development care would not ensure that these trees would remain in fair condition. These trees generally are not the best candidates for trying to retain near or within this project.

The center of the potential development area has a few larger Douglas-fir trees. Trees 2810 (C2) and 2866 (C1) are two of these I specifically evaluated.

Tree 2866 has a DBH of 21 inches. It has a bend in its trunk at approximately thirty feet up its height. There are few trees growing around it to the north, east and south. Due to the kinked form of its trunk, height and live crown existing only at the top third of its trunk, the tree likely has significant movement in wind conditions which would significantly increase if exposed more than it is already. I believe this tree has a moderately high probability of becoming increasingly not wind firm if retained as the site is developed.

Tree 2866 is in fair condition. However, sounding indicated that there is significant lower trunk rot which matches the lower trunk architecture. The tree slightly leans and is bowed to the north. It currently poses a high risk for failure in its lower trunk which would increase with new exposure and is not recommend to be retained.

I also assessed one mature bigleaf maple in this area numbered 2867. The maple has multiple trunks and a very wide spreading canopy. Trunk diameters measure 14.5", 16", 15", 12", 16", 12" and 13" DBH. Trunks arise from close to grade level and indicate that this tree is a mature stump sprout instead of a single tree.

The maple is in fair condition with significantly smaller leaves than average. Mature bigleaf maples around the Puget Sound are exhibiting signs of significant stress, the cause of which has yet to be pinpointed but appears to be exacerbated by growing in warmer more exposed sites.

That said some in shadier forest situations are also declining rapidly. Exposing this tree or, creating a development site around it would require a tree protection zone extending at least to its dripline, protection and care throughout the entire project and after care by the new community which still will not guarantee that its vigor will maintain. This is potentially not a good candidate for retention.

The southeast corner of the potential development area has the largest and most mature trees onsite. These mainly include Douglas-fir and Western red cedar. This small forest remnant includes trees within the potential development area and those surveyed growing south of development limits.

Most of the trees in this area are in good condition. However, several large diameter windthrown Douglas-fir logs litter the site. Their failures were caused by root rot and occurred mainly in a southerly direction. This area should be periodically monitored to assess the health and windfirm nature of the Douglas-fir trees during and after the project is completed.

Landmark Trees (1 total on the proposed development site)

Only one tree that I completely assessed measured to qualify it as a Landmark Tree. This 33” DBH Western red cedar tree labeled 2802 straddles the southern line of the potential development area. It is in good condition.

Maps

Several maps are included in this report. Map 1 locates the trees that were specifically assessed and have complete data regarding their condition, structures, overall vigor and recommendations.

Map 2 again shows the trees I assessed but shows how they fell into one of three categories: recommended for retention, not recommended for retention and conditionally able to be retained. These groups were chosen loosely based on the preliminary site design but mostly based on overall condition, tree structure and tolerance to new exposure.

Map 3 shows a blowup of the Potential Development Area. The single Landmark Tree is located and marked with blue ink. Groups of trees that have the potential to be retained as small groves are surrounded by green ink. Groups of trees including individual trees not recommended for retention are surrounded or noted by orange ink. Groups surrounded by orange and blue ink are trees that aren’t considered to be in good condition but that may be able to be retained depending on the final site design. Those not marked with ink on this map were only quickly assessed. Their potential to be retained can be determined as the site design is honed.

The Tree Data for each single tree assessed as a Level 2 assessment is not attached to this report but can be submitted as the project design is completed if needed.

Thank you very much for calling me for your arboricultural concerns.



Katy Bigelow
Board Master Certified Arborist
PNW ISA member # PN-6039B
Tree Risk Assessment Qualified
Registered Consulting Arborist® #490

Levels of Tree Assessment

LEVEL 1: The Level 1 assessment is a visual assessment from a specified perspective of an individual tree or a population of trees near specified targets to identify obvious defects or specified conditions. A limited visual assessment typically focuses on identifying trees with an imminent and/or probable likelihood of failure.

Limited visual assessments are the fastest but least thorough means of assessment and are intended primarily for large populations of trees.

LEVEL 2: This is a basic assessment completing a detailed visual inspection of a tree and surrounding site, and a synthesis of the information collected. This assessment requires that a tree risk assessor walk completely around the tree—looking at the site, buttress roots, trunk, and branches.

A basic assessment may include the use of simple tools to gain additional information about the tree or defects. Basic is the standard assessment that is performed by arborists in response to a client's request for tree risk assessment. Simple tools may be used for measuring the tree and acquiring more information about the tree or defects. However, the use of these tools is not mandatory unless specified in the Scope of Work.

LEVEL 3: Advanced assessments are performed to provide detailed information about specific tree parts, defects, targets, or site conditions. They are usually conducted in conjunction with or after a basic assessment if the tree risk assessor needs additional information and the client approves the additional service. Specialized equipment, data collection and analysis, and/or expertise are usually required for advanced assessments. These assessments are therefore generally more time intensive and more expensive.

Photos



Photo 1: Trees shown in this photo are representative of Area 1 trees growing along the north property line. Those taped in white are the only that measured greater than ten inches.

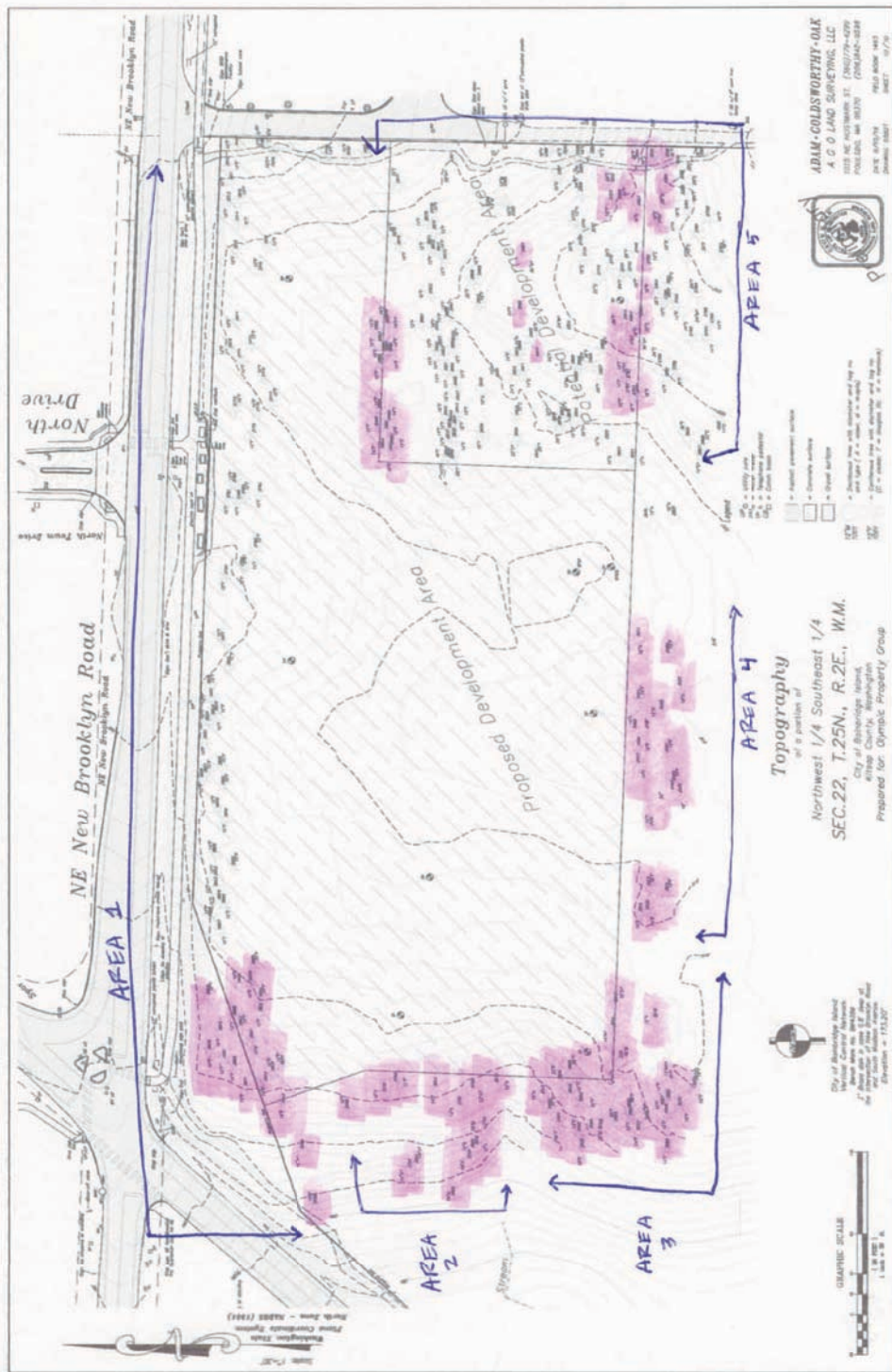


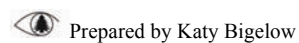
Photo 2: Area 2 – red alder trees covered in English ivy.

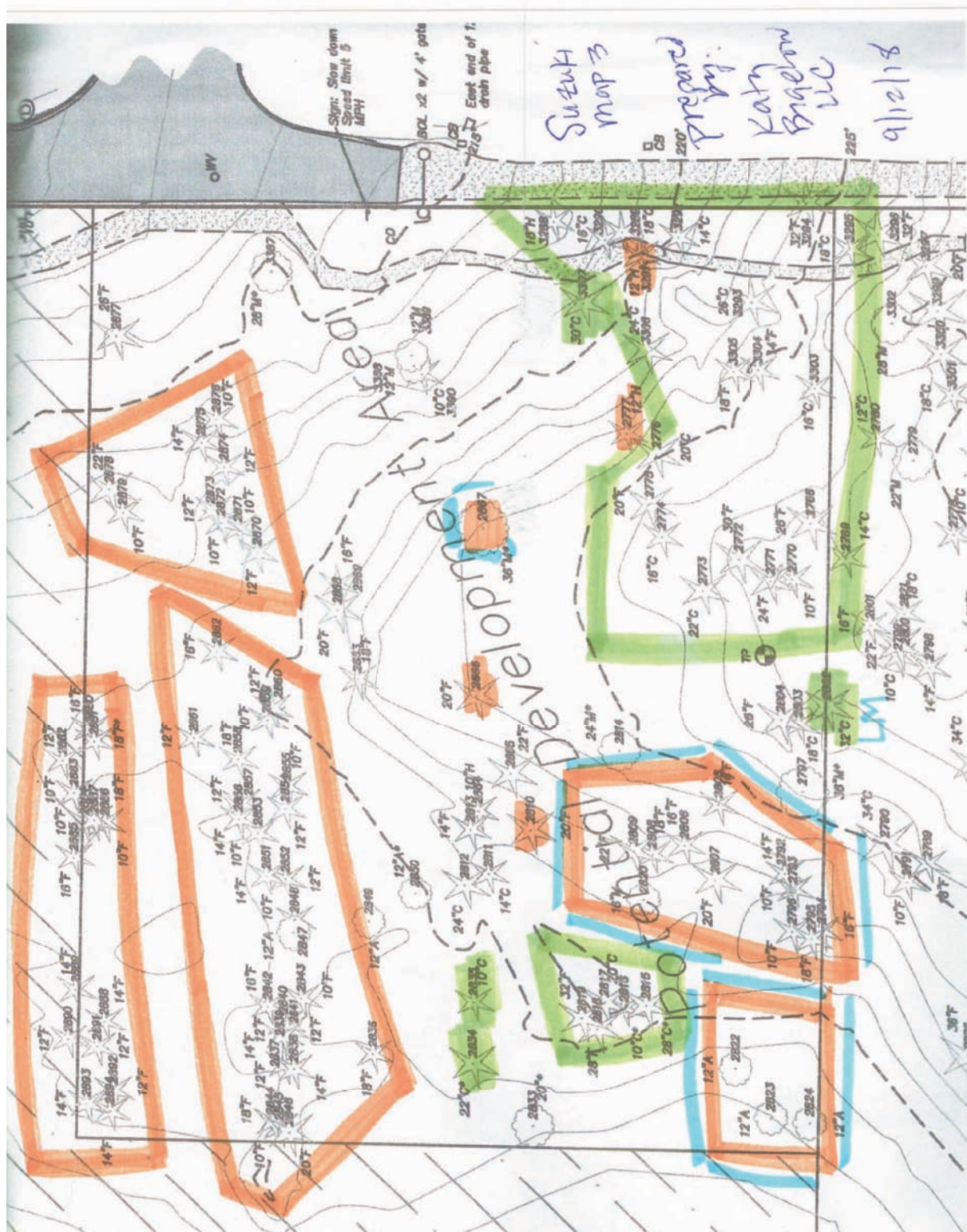
Maps

Prepared by:
Katy Bigelow, LLC

MAP 1 Suzuki prelim tree assessment.
9/12/18







Assumptions, Limiting Conditions and General Waiver

I, Katy Bigelow, certify that:

I have personally inspected the tree(s) and or the property referred to in this report;

I have no current or prospective financial or other interest in the vegetation or the property which is the subject of this report and have no personal interest or bias in favor of or against any of the involved parties or their respective position(s), if any;

The analysis, opinions and conclusions stated herein are the product of my independent professional judgment and based on current scientific procedures and facts, and the foregoing report was prepared according to commercially reasonable and generally accepted arboricultural standards and practices for the Pacific Northwest and Puget Sound areas;

The information included in this report covers only those trees that were examined and reflects the condition of the trees as of the time and date of inspection;

This report and the opinions expressed herein are not intended, nor should they be construed, as any type of warranty or guarantee regarding the condition of the subject trees in the future;

Covenants, Conditions, and Restrictions (“CC&Rs”) may restrict the number, type and height of vegetation on the subject property, and I have made no investigation regarding whether the property is subject to such CC&Rs; and

To the best of my knowledge and belief, all statements and information in this report are true and correct and information provided by others is assumed to be true and correct.

I am not an attorney or engineer. This report does not cover these areas of expertise and represents advice only of arboricultural nature. Without limiting the generality of the preceding sentence, it is specifically understood that nothing contained in this report is intended as legal advice, or advice or opinions regarding soil stability or zoning laws, and this report should not be relied upon to take the place of such advice.



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