



Urban Forestry Services, Inc.

Arboricultural Consulting

Title: **2016-ARP-0046 DeLap (Mason) Tree Report**
194XX 46th Ave NE, Lake Forest Park, WA
Site Plan Review and Level 2 Basic Tree Assessment

Prepared for: Scott DeLap Construction

Copy to: Andrea Flower, Principal Planner
Jake Tracy, Assistant Planner
City of Lake Forest Park Planning & Building Department
17425 Ballinger Way NE
Lake Forest Park, Washington 98155

Prepared by: Urban Forestry Services, Inc.
Christina Pfeiffer
ISA Certified Arborist® #PN-0124A
ISA Tree Risk Assessment Qualified

Date: October 24, 2016

Attachments: Critical Root Zone Explanation
General Tree Protection Guidelines
Assumptions and Limiting Conditions

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- Summary
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- Findings and Recommendations
- Method of Assessment
- Tree Inventory Site Map & CRZ Protection Fence Plan
- Tree Assessment Matrix

Summary

An assessment of the existing trees and a review the proposed limits of construction were provided for the property at the corner of 46th Ave NE and NE 195th Street in Lake Forest Park, Washington. The majority of trees on this lot are highly stressed and in varying states of decline. Very few trees merit retention with the construction of a residence. As a group, the Douglas fir trees are in overall good condition. Five Douglas fir trees that are outside the limits of construction merit retention. The site plan for this project has been annotated to show trees with the highest potential for retention. Employing methods to protect the roots of retained trees will be essential during the removal of adjacent trees and during clearing and grading. General Tree Protection Guidelines for effective tree protection during construction are included with this report. These are critical to follow for the longterm health and safety of the retained trees.

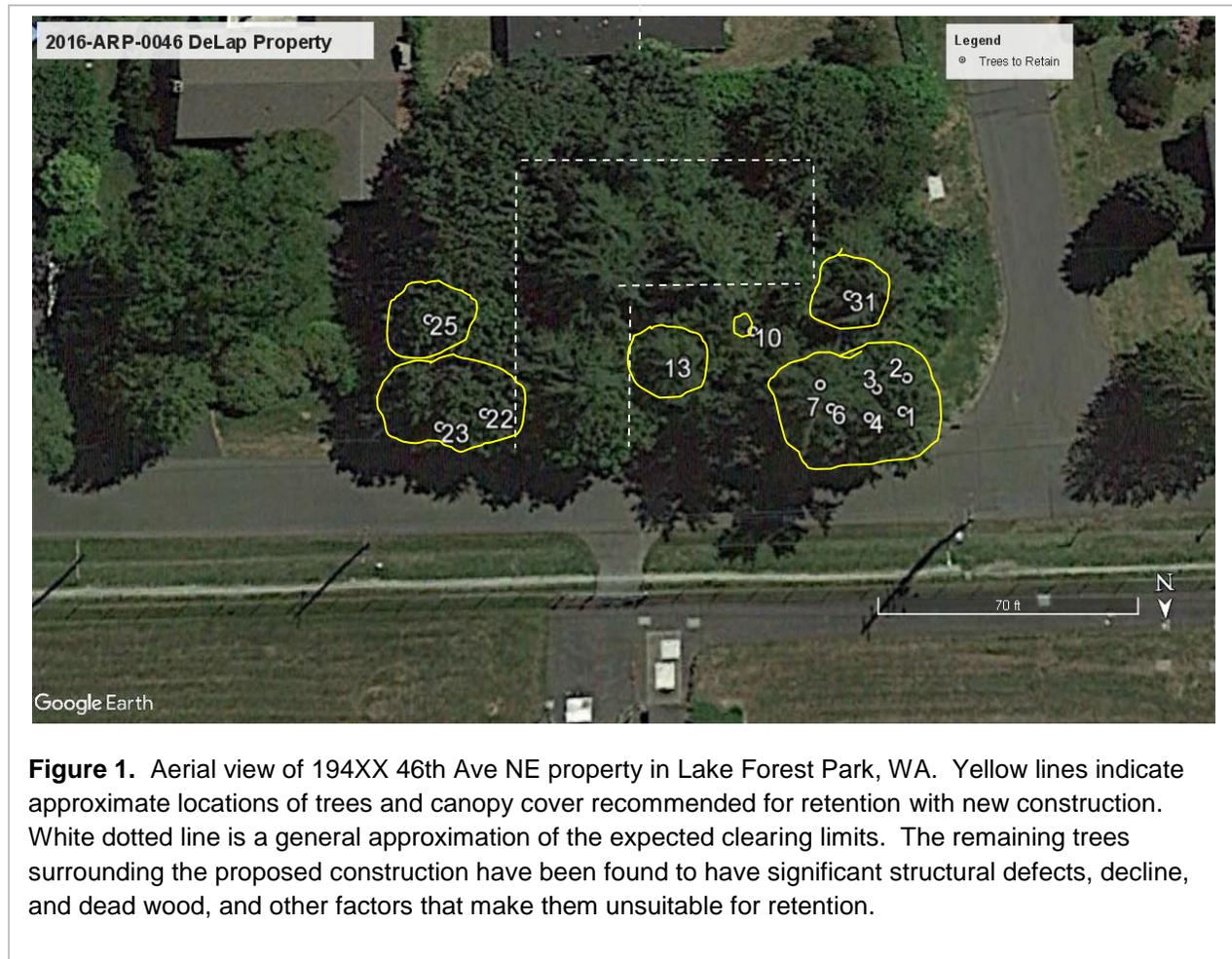
15119 McLean Road
Mount Vernon, WA 98273

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Introduction

As requested by the City of Lake Forest Park Planning and Building Department, I provided an assessment of existing trees on the lot at the corner of 46th Avenue NE and NE 195th Street in Lake Forest Park, Washington. I met Scott DeLap onsite on October 3, 2016 to review the site plan and limits of the proposed construction. I returned on October 5, 2016 with Kurt Fickeisen of Urban Forestry Services, Inc. to perform an assessment, including collecting data on tree condition and canopy cover.

I reviewed the copy of the owner's Tree Removal and Replacement Application provided by the City of Lake Forest Park prior to performing this assessment.



Each of the assessed trees are numbered on the attached Tree Assessment Site Plan, and are referenced by those numbers on the attached Tree Assessment Matrix. The matrix provides notes for the condition and retention value of each tree. Canopy area for those trees that merit retention was estimated using field measurements.

Findings and Recommendations

Eleven trees have been marked for retention, with an estimated canopy cover of 5,726 square feet. This area included trees within and overhanging the right-of-way to the north, and the northeast corner of the property. See Figure 1 and the attached Tree Site Plan.

As a group, the Douglas fir, *Pseudotsuga menzeisii* have the best vigor and structure among the other tree species on this property. A large section of the tops of all the western red cedar, *Thuja plicata* are dead. The bigleaf maple trees, *Acer macrophyllum* display varying conditions of branch dieback, trunk decay, and large limb failures. Four maples are dead, and as many more have very little live wood remaining. The majority of the maples should be removed. Five big leaf maple trees have been identified as having good potential for retention; these trees will require pruning to remove any dead branches over 2-inch diameter, root zone protection and cultural care during and after construction.

Careful consideration for protecting tree root zones will be needed in determining locations for on-site water detention as well as staging and access routes for construction. These may be best determined in the field once the undesired trees have been removed.

Important considerations for tree removal and site clearing:

1. The Critical Root Zone (CRZ) area for each tree to be retained should be confirmed in the field by a consulting arborist. See the attached Tree Protection Site Plan, CRZ Explanation, and General Tree Protection Guidelines.
2. Ground within the CRZ areas should remain undisturbed. Any cut stumps should be carefully removed to avoid damage to roots of the remaining trees. Cedar stumps will not grow back and can be cut flush to grade. A stump grinder may be used for removing other tree stumps. Weeds and brush should be removed by hand and the area then covered in 6-inches of arborist wood chip mulch.
3. Tree protection fencing should be installed immediately after removal of undesired vegetation and the placement of the wood chip mulch. Fencing should be securely anchored to the ground.



Photo 1. View of the northwest corner of the site, looking north. Douglas fir tree #1 is a Landmark tree located in the ROW. Though it is located near the clearing limits, tree #31 has good potential for retention with appropriate provisions for root protection and construction methods near the CRZ. Bigleaf maple #33 is in advance decline, and breaking apart.



Photo 2. Big leaf maple #48. The multiple trunks have grown from an old stump with advancing decay (arrow). With this poor basal structure, this specimen should be removed.



Photo 3. View of the northeast corner of the site, looking south. Two maples can be retained (A). Clump of trees to be removed for driveway construction (B).

Method of Assessment

The methodology used for the **Level 2 Basic Assessment** provided with this report follows the process and criterion provided through the Tree Risk Assessment Qualification (TRAQ) training administered by the International Society of Arboriculture (ISA) and follows the ISA's *Best Management Practices - Tree Risk Assessment publication*.

While no one can predict with absolute certainty which trees will fail and which trees will remain healthy, by methodical process we can predict those most likely to fail by the conditions observed and take appropriate action to reduce or eliminate the potential hazard.

Tree condition is determined based on visual inspection of the above-ground portions of the trees. Of particular concern is trunk soundness, tree structure, bud fullness and color, twig length, crown ratio, density of leaves, evidence of disease-causing bacteria, fungi or virus, deadwood, and dead or broken hanging limbs.

The three levels of tree risk assessment as defined by the ISA are as follows:

Level 1 Limited Visual Assessment: Includes a broad overview of an individual tree or group of trees near specified targets conducted to identify obvious defects or other conditions of concern. A limited visual assessment typically focuses on identifying trees with imminent and/or probable likelihood of failure. Level 1 assessments do not always meet the criteria for a "risk assessment" if they do not include analysis and evaluation of individual trees. Defects found in a level 1 assessment may require a Level 2 or Level 3 assessment.

Level 2 Basic Assessment: A detailed visual inspection of a tree and its surrounding site, and a synthesis of the information collected. It requires that a tree risk assessor walk completely around the tree, looking at the site, buttress roots, trunk, and branches. This basic assessment may include the use of simple tools to gain additional information about the tree or defects. Defects found in a level 2 Basic Tree Assessment may require a Level 3 assessment for further testing and analysis.

Level 3 Advanced Assessment: Advanced assessments are performed to provide more highly detailed information about specific tree components, defects, targets or site conditions. An advanced assessment is performed in conjunction with or after a Level 2 Basic Assessment if the assessor determines the need for (requires) additional information.

Please let us know if you have any questions about this report.

Literature Cited

ISA Tree Risk Assessment Manual, Dunster, L., Smiley, T., Matheny, N., and Lilly, S. 2013 International Society of Arboriculture.
ISA Best Management Practice, Tree Risk Assessment, Smiley, T., Matheny, N., and Lilly, S. 2011 International Society of Arboriculture.

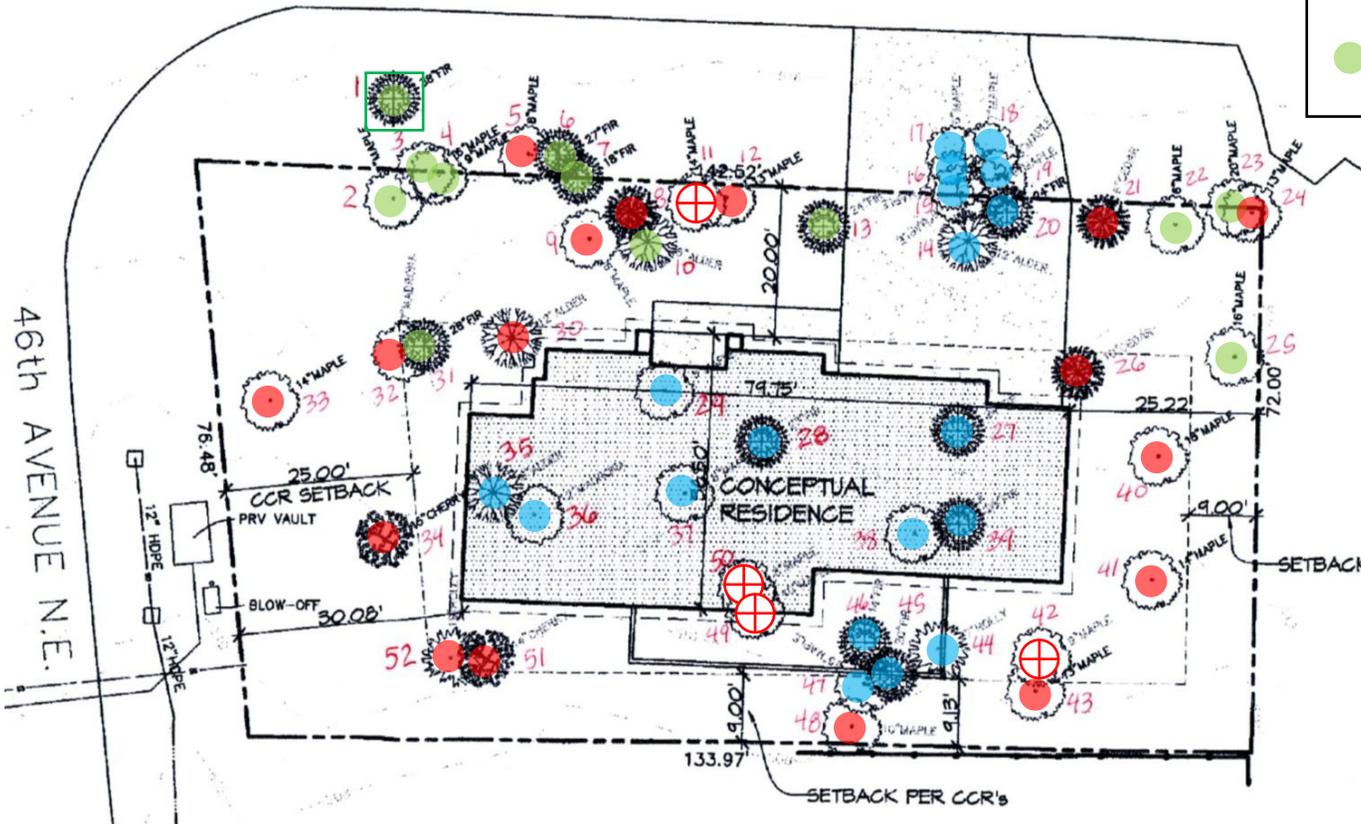
2016-ARP-0046 DeLap (Mason) Property
 194XX 46th Ave NE, Lake Forest Park, WA

Est. Canopy Cover

Lot size = 10,140 s.f.

Retained canopy est. = 5726 s.f. (~56%)

N.E. 195th STREET



PRESERVATION VALUE SYMBOLS

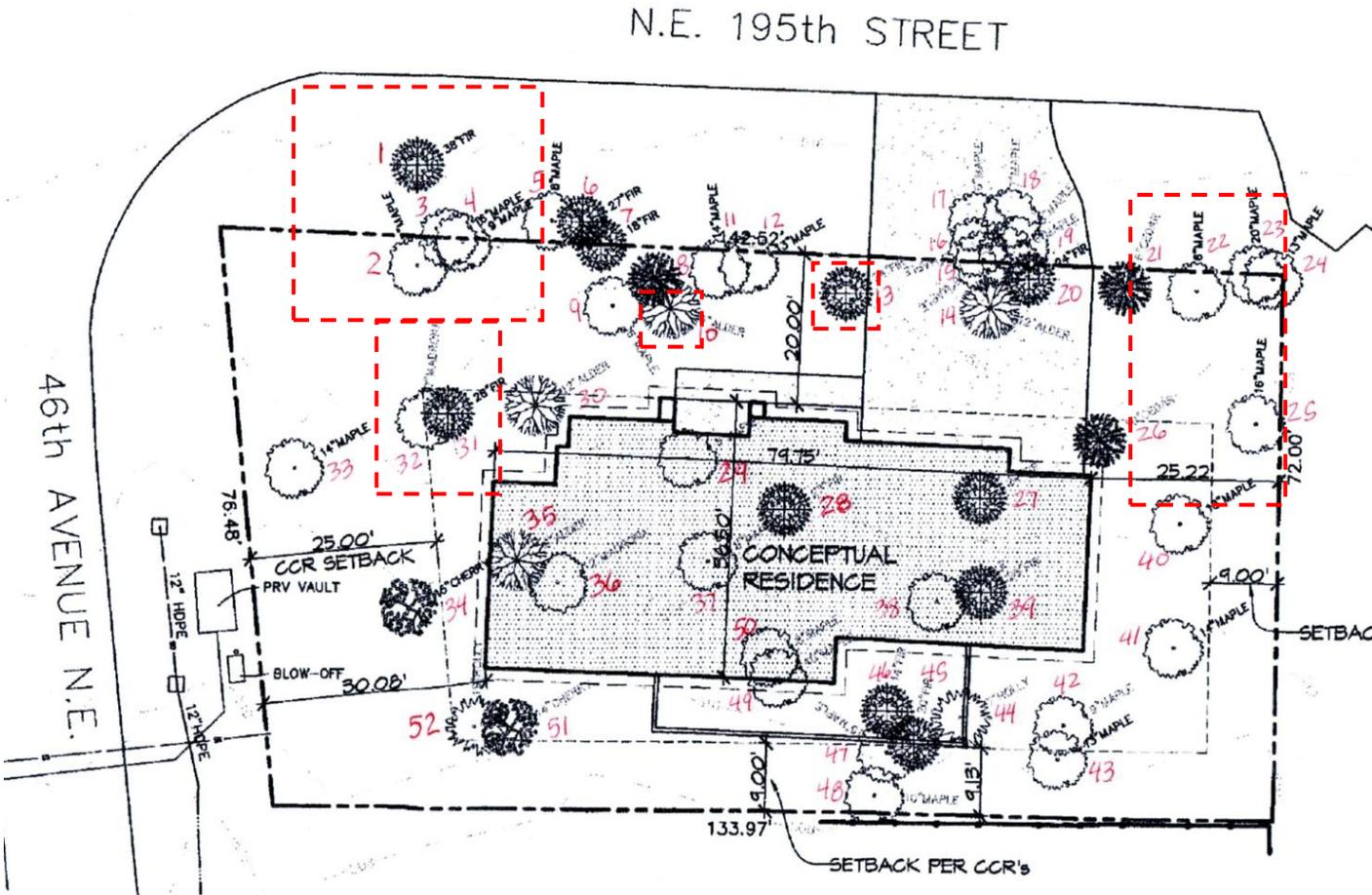
-  LANDMARK TREE
-  RETAIN. PROTECT CRITICAL ROOT ZONE AREA. PRUNE TO CLEAN CROWN OF DEADWOOD OVER 2-INCH DIAMETER.
-  REMOVE. TREES WITHIN LIMITS OF CONSTRUCTION.
-  REMOVE. POOR CONDITION FOR RETENTION WITH CONSTRUCTION AND/OR HIGH POTENTIAL RISK OF FAILURE.
-  DEAD.



Urban Forestry Services, Inc.
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 October 27, 2016

2016-ARP-0046 DeLap (Mason) Property
 194XX 46th Ave NE, Lake Forest Park, WA

Tree Protection Fence Locations



The Tree Protection Fence (TPF) shall be installed along the clearing limits, with special consideration of the Critical Root Zone (CRZ) of trees to be preserved. The CRZ of a tree is generally described as an area equal to 1-foot radius for every 1-inch diameter of tree. Multiple trees may need to be enclosed within one fence. Work within the CRZ may be limited to hand work or alternate method of construction.

The Tree Protection Fence (TPF) shall be constructed with steel posts driven into the ground with 6-ft. chain link fence attached. Upon consultation with the contractor, the arborist shall determine the placement of the fence and the extent and method of clearing that may be done near preserved trees. Additional follow-up determinations may be required as work progresses on the project. See attached **Critical Root Zone Explanation**.

No parking, storage, dumping, or burning of materials is allowed beyond the clearing limits or within the Tree Protection Fence.

The TPF shall not be moved without authorization by the owner's arborist or City arborist. The TPF shall remain in place for the duration of the project.

Work within this area shall be reviewed with and approved by the owner's arborist. Call Urban Forestry Services, Inc. at 360-428-5810 with questions.



Urban Forestry Services, Inc.
 15119 McLean Road
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 360-428-5810
 October 27, 2016

Tree Assessment
2016-ARP-0046 DeLap Site
Lake Forest Park, WA

Field data: October 5, 2016

Tree #	Species	dbh (in.)	Drip Line Radius (f.)	Est. Retained Canopy s.f.	CRZ Radius	Vigor	Structure	Risk of Failure	Comments / Defects	Land-mark	Preservation Value	Maintenance Recommendations
1	Douglas fir, <i>Pseutsuga menzeisii</i>	33.5	15	706	34'	Good	Good	Moderate		Yes	High	
2	Big leaf maple, <i>Acer macrophyllum</i>		12.5	491	18'	Good	Good	Moderate	Retain as grove with Douglas fir #1.	No	High	Crown clean to remove dead wood.
3	Big leaf maple, <i>Acer macrophyllum</i>				18'	Good	Good	Moderate	Retain as grove with Douglas fir #1.	No	High	Crown clean to remove dead wood.
4	Big leaf maple, <i>Acer macrophyllum</i>				16'	Fair	Fair	Moderate	Retain as grove with Douglas fir #1.	No	Moderate	Crown clean to remove dead wood.
5	Big leaf maple, <i>Acer macrophyllum</i>		n/a		n/a	Poor	Poor	High	Tree is near dead, one live limb remaining.	No	None	Remove tree.
6	Douglas fir, <i>Pseutsuga menzeisii</i>	25	14	616	25'	Good	Good	Moderate		No	High	
7	Douglas fir, <i>Pseutsuga menzeisii</i>	16	12	452	16'	Good	Good	Moderate		No	High	
8	Western red cedar, <i>Thuja plicata</i>		10		n/a	Poor	Fair	Moderate	Live canopy over lower 12-feet. Upper 6+ feet of tree is dead.	No	None	Remove tree.
9	Big leaf maple, <i>Acer macrophyllum</i>		n/a		n/a	Poor	Poor	High	Tree is near dead.	No	None	Remove tree.
10	Hawthorn, <i>Crataegus</i> sp.		7.5	177	8'	Good	Good	Low	Tree has potential for pruning to retain as part of new landscape.	No	Moderate	Crown clean.
11	Big leaf maple, <i>Acer macrophyllum</i>		n/a		n/a	Dead	Poor	High		No	None	Remove tree.
12	Big leaf maple, <i>Acer macrophyllum</i>		17		n/a	Poor	Poor	High	Tree is near dead.	No	None	Remove tree.

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Field data: October 5, 2016

Tree #	Species	dbh (in.)	Drip Line Radius (f.)	Est. Retained Canopy s.f.	CRZ Radius	Vigor	Structure	Risk of Failure	Comments / Defects	Landmark	Preservation Value	Maintenance Recommendations
13	Douglas fir, <i>Pseutsuga menzeisii</i>	15	10	314	15'	Fair	Good	Moderate		No	Moderate	
14	Red alder, <i>Alnus rubra</i>		26		n/a	Fair	Fair	Moderate	Within alignment of proposed driveway	No	Low	Remove tree.
15	Big leaf maple, <i>Acer macrophyllum</i>					Fair	Fair	Moderate	Within alignment of proposed driveway		Low	Remove tree.
16	Big leaf maple, <i>Acer macrophyllum</i>					Fair	Fair	Moderate	Within alignment of proposed driveway		Low	Remove tree.
17	Big leaf maple, <i>Acer macrophyllum</i>					Fair	Fair	Moderate	Within alignment of proposed driveway		Low	Remove tree.
18	Big leaf maple, <i>Acer macrophyllum</i>					Fair	Fair	Moderate	Within alignment of proposed driveway		Low	Remove tree.
19	Big leaf maple, <i>Acer macrophyllum</i>					Fair	Fair	Moderate	Within alignment of proposed driveway		Low	Remove tree.
20	Douglas fir, <i>Pseutsuga menzeisii</i>					Good	Good	Moderate	Within alignment of proposed driveway		Low	Remove tree.
21	Western red cedar, <i>Thuja</i>		16		n/a	Poor	Poor	Moderate	Top half of the tree is dead.	No	Low	Remove tree.
22	Big leaf maple, <i>Acer macrophyllum</i>		13.5	573	15	Fair	Fair	Moderate		no	Moderate	Crown clean.
23	Big leaf maple, <i>Acer macrophyllum</i>		13.5	573	15	Fair	Fair	Moderate		No	Moderate	Crown clean.
24	Big leaf maple, <i>Acer macrophyllum</i>		19		n/a	Poor	Poor	High	In decline.	No	Low	Remove tree.
25	Big leaf maple, <i>Acer macrophyllum</i>		18	1020	18	Good	Good	Moderate		No	High	Crown clean.
26	Western red cedar, <i>Thuja plicata</i>		16		n/a	Poor	Poor	Moderate	Top half of the tree is dead.	No	Low	Remove tree.

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Tree #	Species	dbh (in.)	Drip Line Radius (f.)	Est. Retained Canopy s.f.	CRZ Radius	Vigor	Structure	Risk of Failure	Comments / Defects	Landmark	Preservation Value	Maintenance Recommendations
27	Douglas fir, <i>Pseutsuga menzeisii</i>		16		n/a	Good	Good	Moderate	Within construction footprint.	No	Moderate	Remove tree.
28	Douglas fir, <i>Pseutsuga menzeisii</i>		18		n/a	Good	Good	Moderate	Within construction footprint.	No	Moderate	Remove tree.
29	Big leaf maple, <i>Acer macrophyllum</i>		5		n/a	Poor	Poor	High	Within construction footprint.	No	Low	Remove tree.
30	Black cottonwood, <i>Populus trichocarpa</i>		11		n/a	Fair	Fair	Moderate	Poor species for retention with new construction. Too close to proposed building.	No	Low	Remove tree.
31	Douglas fir, <i>Pseutsuga menzeisii</i>	24	16	804	24	Good	Good	Moderate		No	High	
32	Pacific madrone, <i>Arbutus menzeisii</i>		15		n/a	Good	Fair	Moderate	Highly asymmetrical crown, as is typical in madrone. Low angle of the lean makes this tree not likely to be suitable for retention with new construction.	No	Moderate	Consider removal.
33	Big leaf maple, <i>Acer macrophyllum</i>		na/		n/a	Poor	Poor	High	Multiple scaffold limb failures. Low live crown ratio.	No	None	Remove tree.
34	Cherry, <i>Prunus</i> sp.		12			Poor	Poor	Moderate		No	Low	Remove tree.
35	Red alder, <i>Alnus rubra</i>		n/a		n/a	Dead	n/a	Low	Within construction footprint. Tree has fallen down.	No	N/A	
36	Pacific madrone, <i>Arbutus menzeisii</i>		25		n/a	Good	Good	Moderate	Within construction footprint.	No	Moderate	Remove tree.
37	Big leaf maple, <i>Acer macrophyllum</i>		11		n/a	Fair	Fair	Moderate	Within construction footprint.	No	Low	Remove tree.
38	Big leaf maple, <i>Acer macrophyllum</i>		11		n/a	Fair	Fair	Moderate	Within construction footprint.	No	Low	Remove tree.
39	Douglas fir, <i>Pseutsuga menzeisii</i>		16		n/a	Good	Good	Moderate	Within construction footprint.	No	Low	Remove tree.

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Field data: October 5, 2016

Tree #	Species	dbh (in.)	Drip Line Radius (f.)	Est. Retained Canopy s.f.	CRZ Radius	Vigor	Structure	Risk of Failure	Comments / Defects	Land-mark	Preservation Value	Maintenance Recommendations
40	Big leaf maple, <i>Acer macrophyllum</i>		18		n/a	Poor	Poor	High	Advanced decline with decayed wood in upper scaffold limbs. Neighbor posted sign on tree regarding its potential to fail onto their property.	No	None	Remove tree.
41	Big leaf maple, <i>Acer macrophyllum</i>	12.5, 10.5, 18, 13	18		n/a	Fair	Fair-Good	Moderate	Multiple trunk specimen with broad canopy. Specime appears to be within 10-feet of clearing limits, too close for root protection and for canopy clearance with the building. High potential for post-construction decline.	No	Low	Remove tree.
42	Big leaf maple, <i>Acer macrophyllum</i>		n/a		n/a	Dead		High		No	None	Remove tree.
43	Big leaf maple, <i>Acer macrophyllum</i>		25		n/a	Poor	Poor	High	Advanced decline.	No	None	Remove tree.
44	English holly, <i>Ilex aquifolium</i>		8		n/a	Good	Fair	Low	Poor form.	No	Low	
45	Douglas fir, <i>Pseutsuga menzeisii</i>		15		n/a			Moderate	Within clearing limits.	No	High	
46	Douglas fir, <i>Pseutsuga menzeisii</i>		15		n/a			Moderate	Within clearing limits.	No	High	
47	Big leaf maple, <i>Acer macrophyllum</i>		16		n/a	Poor	Poor	Moderate	Multiple trunks originate from old cut stumps. Poor structure for retention with new construction.	No	Low	Remove tree.
48	Big leaf maple, <i>Acer macrophyllum</i>		16			Poor	Poor	Moderate	Multiple trunks originate from old cut stumps. Poor structure for retention with new construction.	No	Low	Remove tree.
49	Big leaf maple, <i>Acer macrophyllum</i>		n/a			Dead	Dead	High		No	None	Remove tree.
50	Big leaf maple, <i>Acer macrophyllum</i>		n/a			Dead	Dead	High		No	None	Remove tree.

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Tree #	Species	dbh (in.)	Drip Line Radius (f.)	Est. Retained Canopy s.f.	CRZ Radius	Vigor	Structure	Risk of Failure	Comments / Defects	Land-mark	Preservation Value	Maintenance Recommendations
51	Big leaf maple, Acer macrophyllum		15		n/a	Poor	Poor	Moderate	Poor candidate for retention with new construction	No	Low	Remove tree.
52	English holly, Ilex aquifolium		10		n/a	Fair	Fair	Moderate	Poor candidate for retention with new construction	No	Low	Remove tree.

Total est. s.f. retained canopy: 5726

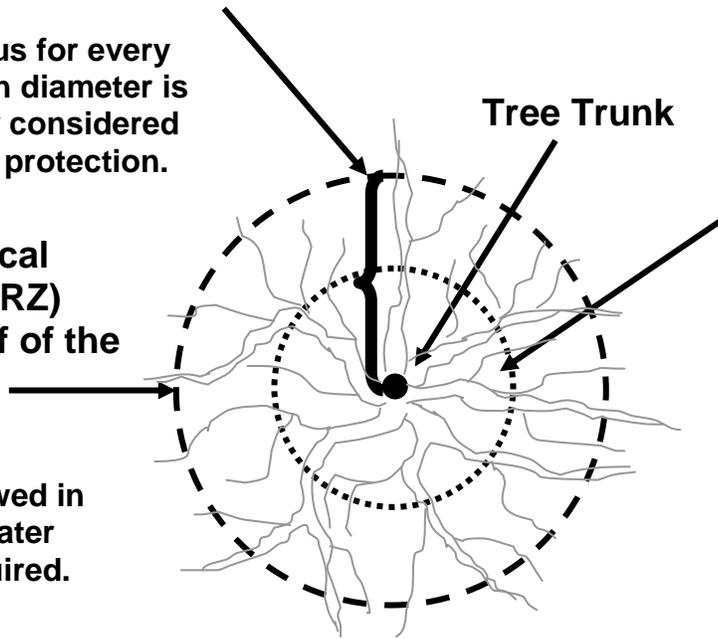
Diameter measurements collected for calculation of CRZ radius for retained trees.

Dripline radius represents average of canopy spread in four directions for asymmetrical canopies.

Critical Root Zone (CRZ) =
12" Radius for every Tree inch diameter is generally considered optimum protection.

Perimeter Critical Root Zone (PCRZ) = the outer half of the CRZ

The greater the disturbance allowed in this area, the greater Post Care is required.



Interior Critical Root Zone (ICRZ)
= the inner half of the CRZ
Protecting only this area would cause significant impact to the tree, potentially life threatening, and would require maximum Post Care Treatment to retain the tree. See Post Care Treatment below.

The Critical Root Zone (CRZ) of a tree is established on the basis of the trunk diameter. The CRZ is a circular area which has a radius of 12 inches to every inch diameter of trunk measured at 4.5 feet above grade. Root systems will vary both in depth and spread depending on size of tree, soils, water table, species and other factors. However, this CRZ description is generally accepted in the tree industry. Protecting this entire area should result in no adverse impact to the tree.

The above CRZ drawing has been further differentiated into the 'Perimeter' (PCRZ) and 'Interior' (ICRZ) to help define potential impact and required Post Care. Generally, the full PCRZ is considered the optimum amount of root protection for a tree. As one encroaches into the "Perimeter CRZ, but not into the "Interior CRZ" the greater Post Care the tree would require to remain alive and stable. The 'Interior CRZ is half the radius of the full PCRZ. Disturbance into the ICRZ could destabilize or cause the tree to decline.

The absolute maximum disturbance allowed should leave the 'Interior' CRZ undisturbed if the tree is to have any chance of survival. This 'Interior' CRZ would approximately equal the size of a rootball needed to transplant this tree which in turn would require extensive Post Care and possibly guying. Post Care Treatment includes but may not be limited to; regular irrigation, misting, root treatment with special root hormones, mulching, guying and monitoring for several years.



Urban Forestry Services, Inc.
15119 McLean Rd.
Mount Vernon, WA 98273

Title: Explanation of Critical Root Zone (CRZ)
Source: Urban Forestry Services, Inc
Jim Barborinas, ISA Certified Arborist PN-0135
ASCA Registered Consulting Arborist #356,
Certified Tree Risk Assessor #PNW-0327

Date: 2011

Not to Scale



General Tree Protection Guidelines

1. These Guidelines pertain to any disturbance, use or activity within the Critical Root Zone of any retained tree on this project. See attached **Critical Root Zone Explanation**. The owner's arborist and general contractor shall meet onsite before any site work begins to discuss and agree on the methods used to protect the retained trees during construction.
2. No soil disturbance shall take place before tree protection fences are installed. All evaluated trees to be retained within these areas are clearly illustrated on the Site Plan. The owner's arborist and contractor shall confirm on site which trees are to be removed and those to be retained. Directional felling of trees to be removed will be completed with great care not to damage retained trees.
3. The **Tree Protection Site Plan** shows the recommended location of the Tree Protection Fence (TPF). Immediately after clearing and grading stakes are set in the field, the owner's arborist, during review and discussion with the contractor will make a final determination on the tree protection requirements depending on construction limits and impact on major roots. The arborist may adjust clearing limits in the field so that, in his/her opinion, tree roots are protected while necessary work can proceed.
4. The Tree Protection Fence (TPF) shall be installed along the clearing limits, with special consideration of the Critical Root Zone (CRZ) of trees to be preserved. The CRZ of a tree is generally described as an area equal to 1-foot radius for every 1-inch diameter of tree. For example, a 10-inch diameter tree has a CRZ of 10-foot radius. Work within that area may be limited to hand work. The Tree Protection Fence (TPF) shall be constructed with a steel posts driven into the ground with 6-ft. chain link fence attached. The arborist upon consultation with the contractor shall determine the placement of the fence and the extent and method of clearing near preserved trees. Additional follow-up determinations may be required later on in the project. See attached **Critical Root Zone Explanation**.
5. Where the CRZ includes an area covered by hardscape, the TPF can be placed along the edge of the hardscape if and until it is removed. After removal, the available CRZ should be backfilled with soil up to 6 inches deep and protected with the TPF.
6. No parking, storage, dumping, or burning of materials is allowed beyond the clearing limits or within the TPF.
7. Tree protection signs shall be attached to the fence only and shall be shown as required on the Site Plan. They should read "Protect Critical Root Zone (CRZ) of trees to be retained. No

soil disturbance, parking, storage, dumping, or burning of materials is allowed beyond the Tree Protection Fence. Work within this area shall be reviewed with and approved by the owner's arborist. Call 360-770-9921 for Questions."

- 8.** Where vehicular access is required within the CRZ of any preserved tree that is not protected with hardscape, the soil shall be protected with 18" of woodchips and/or plywood or metal sheets to protect from soil compaction and damage to roots of retained trees.
- 9.** The Tree Protection Fence will not be moved without authorization by the owner's arborist or City. The Fence shall be left up for the duration of the project.
- 10.** Great care will be exercised when landscaping within the CRZ of any tree. Roots of preserved trees and other vegetation shall not be damaged by planting or irrigation lines. The owner's arborist shall review the Landscape Plan and approve those activities within the CRZ of retained trees
- 11.** The owner's arborist will determine to what extent backfilling is allowed within the CRZ of a preserved tree. Only sandy, gravelly pit run is recommended for backfilling. Grade cuts are usually more detrimental than grade filling within the CRZ.
- 12.** Trees recommended for maintenance and approved by the owner, shall be pruned for deadwood, low hanging limbs, and proper balance, as recommended for safety, clearance or aesthetics. An International Society of Arboriculture Certified Arborist is recommended to perform the pruning. ANSI A300 American Standards for Pruning shall be used. Limbs of retained trees within 10 feet or more, of any power line depending on power line voltage, may only be pruned by a Utility Certified Arborist. This pruning must be coordinated with the local power company or a private company with this certification.
- 13.** Required work may result in the cutting of roots of retained trees. Severed roots of retained trees shall be cut off cleanly with a sharp saw or pruning shears. No pruning paint on trunk or root wounds is recommended. Severed roots shall be covered immediately after final pruning with moist soil or covered with mulch until covered with soil. Excavation equipment operators shall take extreme care not to hook roots and pull them back towards retained trees. This work shall be under the direct supervision of the owner's arborist.
- 14.** If clearing is performed during the summer, supplemental watering and/or mulching over the root systems of preserved trees may be required by the owner's arborist. He or she should be notified in this event. Supplemental watering and mulching over the root systems of root impacted or stressed trees are strongly recommended to compensate for root loss and initiate new root growth. Long periods of slow drip irrigation will be most effective. Water once per week and check soils for at least 12 inches infiltration. This work shall be under the direct supervision of the owner's arborist.
- 15.** Additional tree protection recommendations may be required as needed.

- 16.** The owner's arborist may be required to monitor work when disturbance occurs near retained trees and shall make periodic site visits to report to the owner and city if tree protection guidelines are being followed.
- 17.** The owner's arborist shall make a final site visit to report on retained tree condition following completed work and shall report to the city to release the bond for the retained trees.

ASSUMPTIONS AND LIMITING CONDITIONS

Urban Forestry Services, Inc.
15119 McLean Rd.
Mount Vernon, Washington 98273

1. **Limitations of this Assessment**

This Assessment is based on the circumstances and observations as they existed at the time of the site inspection of the Client's Property and the trees inspected by Urban Forestry Services, Inc. and upon information provided by the Client to Urban Forestry Services, Inc. The opinions in this Assessment are given based on observations made and using generally accepted professional judgment, however, because trees and plants are living organisms and subject to change, damage, and disease, the results, observations, recommendations, and analysis took place and no guarantee, warranty, representation, or opinion is offered or made by Urban Forestry Services, Inc. as to the length of the validity of the results, observations, recommendations, and analysis contained within this Assessment. As a result, the Client shall not rely upon this Assessment, save and except for representing the circumstances and observations, analysis, and recommendations that were made as at the date of such inspections. It is recommended that the trees discussed in this Assessment should be re-assessed periodically.

Urban Forestry Services, Inc. shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in our fee schedule and contract of engagement.

Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.

2. **Reaction of Assessment**

The Assessment carried out was restricted to the Property. No assessment of any other trees or plants has been undertaken by Urban Forestry Services, Inc. Urban Forestry Services, Inc. is not legally liable for any other trees or plants on the Property except those expressly discussed herein. The conclusions of this Assessment do not apply to any areas, trees, plants, or any other property not covered or referenced in this Assessment.

3. **Professional Responsibility**

In carrying out this Assessment, Urban Forestry Services, Inc. and any Assessor appointed for and on behalf of Urban Forestry Services, Inc. to perform and carry out the Assessment has exercised a reasonable standard of care, skill, and diligence as would be customarily and normally provided in carrying out this Assessment. The Assessment has been made using accepted arboricultural techniques. These include a visual examination of each tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of insect attack, discolored foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the current or planned proximity of property and people. Except where specifically noted in the Assessment, none of the trees examined on the property were dissected, cored, probed, or climbed and detailed root crown examinations involving excavation were not undertaken.

While reasonable efforts have been made to ensure that the trees recommended for retention are healthy, no guarantees are offered, or implied, that these trees, or all parts of them will remain standing. It is professionally impossible to predict with absolute certainty the behavior of any single tree or group of trees, or all their component parts, in all given circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential to fall, lean, or otherwise pose a danger to property and persons in the event of adverse weather conditions, and this risk can only be eliminated if the tree is removed.

Without limiting the foregoing, no liability is assumed by Urban Forestry Services, Inc. or its directors, officers, employers, contractors, agents, or Assessors for:

- any legal description provided with respect to the Property;
- issues of title and or ownership respect to the Property;
- the accuracy of the Property line locations or boundaries with respect to the Property; and
- the accuracy of any other information provided to Urban Forestry Services, Inc. by the Client or third parties;
- any consequential loss, injury, or damages suffered by the Client or any third parties, including but not limited to replacement costs, loss of use, earnings, and business interruption; and
- the unauthorized distribution of the Assessment.

The total monetary amount of all claims or causes of action the Client may have as against Urban Forestry Services, Inc. including but not limited to claims for negligence, negligent misrepresentation, and breach of contract, shall be strictly limited to solely to the total amount of fees paid by the Client to Urban Forestry Services, Inc. pursuant to the Contract for Services as dated for which this Assessment was carried out. Further, under no circumstance may any claims be initiated or commenced by the Client against Urban Forestry Services, Inc. or any of its directors, officers, employees, contractors, agents, or Assessors, in contract or in tort, more than 12 months after the date of this Assessment.

4. Third Party Liability

This Assessment was prepared by Urban Forestry Services, Inc. exclusively for the Client. The contents reflect Urban Forestry Services, Inc. best assessment of the trees and plants on the Property in light of the information available to it at the time of preparation of this Assessment. Any use which a third party makes of this Assessment, or any reliance on or decisions made based upon this Assessment, are made a the sole risk of any such third parties. Urban Forestry Services, Inc. accepts no responsibility for any damages or loss suffered by any third party or by the Client as a result of decisions made or actions based upon the use of reliance of this Assessment by any such party.

5. General

Any plans and/or illustrations in this Assessment are included only to help the Client visualize the issues in this Assessment and shall not be relied upon for any other purpose.

This report and any values expressed herein represent the opinion of Urban Forestry Services, Inc. Our fee is in no way contingent upon any specified value, a result or occurrence of a subsequent event, nor upon any finding reported.

The Assessment report shall be considered as a whole, no sections are severable, and the Assessment shall be considered incomplete if any pages are missing. The right is reserved to adjust tree valuations, if additional relevant information is made available. This Assessment is for the exclusive use of the Client.