To:	Tanya Nachia Somanna, Hoa Hoang
Job Site:	7929 E MERCER WAY 98040
Parcel:	3024059176
Subject:	Arborist Report
Date:	6/18/2021, 1/9/2023
From:	Andy Crossett, ISA Certified Arborist #PN-7375A, Qualified Tree Risk Assessor, WSNLA Certified Professional Horticulturist #2537

Assignment

Tanya Nachia Somanna of Warmmodern Living contacted me and asked that I prepare an arborist report for the trees located at 7929 E Mercer Way, Mercer Island WA. She was representing her client Hoa Hoang, the owner of the subject property.

***1/9/2023 –** I have updated the report to address comments from Mercer Island.

A site map can be found below under section 5, labeled: **Appendix A – Site Map – Snipped from the provided plot plan.**

Where applicable, I have categorized risk based on the methodologies presented in the International Society of Arboriculture's Tree Risk Assessment (Best Management Practices).

My responsibilities were to provide the following:

A tree plan that includes a tree inventory, site plan, replanting information (if necessary), tree protection measures for on-site and off-site trees (where CRZ extends on-site), and recommendations that will meet the minimum city of **Mercer Island** tree code requirements.

Site Description

The 30,492 square foot lot is located at the end of an easement driveway north-west of East Mercer Way. The landscape is neatly manicured with well-defined garden beds that feature a mix of ornamental native/non-native shrubs and small trees. The home is located on the south-west portion of the property. The majority of the subject trees are located on a slope north-west of the home.

Subject Trees – Twenty-six (26) trees located on 7929 E Mercer Way.

1. Summary

Per MICC 19.10.060 2. A. "A minimum of 30 percent of trees with a diameter of 10 inches or greater, or that otherwise meet the definition of large tree, shall be retained over a rolling five-year period." I have identified and tagged 26 trees on-site. No trees have been proposed for removal. 100% of the on-site trees will be retained and will therefore exceed the City of Mercer Island tree retention standards.

I have identified and measured all on-site trees to define their critical root zones and limits of disturbance. Approximations of the locations of the recommended protection measures have been included on the site map below. The majority of the on-site trees will not be significantly impacted by construction as they are located on the slope north of the home. However, there are a few notable exceptions to this:

Tree 62 is a 29" DBH bigleaf maple in good condition. This tree will be impacted by the widening of the driveway and installation of retaining wall. The area of disturbance will occur in the southern portion of the dripline and represents 14.5% of the total dripline area. Per Trees and Development: A Technical Guide to Preservation of Trees During Land Development, bigleaf maple is listed with a "good" relative tolerance to root disturbances. Therefore, is unlikely the health or stability of the tree will be significantly impacted by construction.

Trees 63 (31"), **64** (22"), and **65** (31") are all Douglas fir in good condition. These trees will also be impacted by the widening of the driveway and installation of retaining wall. This disturbance will occur on the south-east portion of each trees critical root zone. The disturbance represents 13.9% of tree 63, 13.3% of tree 64, and 15.6% of their total dripline area. Per Trees and Development: A Technical Guide to Preservation of Trees During Land Development Douglas fir is listed with a good tolerance to root pruning. Therefore, is unlikely that the health of these trees will be significant impacted by development. However, the trees are fully exposed to southern prevailing winds, and the proposed disturbance may impact their stability.

Trees 58, 60, and 61 will be retained but are located within areas that may be impacted by construction activities and will therefore require tree protection fencing to ensure their critical root zones are protected.

A tree table has been included below (section 4) as well as a site map identifying the subject trees along with tree protection fencing (section 5).

2. Details of Risk Assessment

Level 2: Basic Assessment

A level 2 basic assessment is the standard assessment performed for tree risk. The assessment includes a detailed visual inspection of a tree and its surrounding site, and a synthesis of the information collected. The basic assessment involves walking completely around the tree – looking at the site, buttress roots, trunk, and branches. The tree is viewed from a distance, as well as close up, to consider crown shape and surroundings.

Methodology – When identifying potential hazard trees, I have to consider a variety of factors that could contribute to failure. This can include the following: previous history of site failures, topography, site changes, prevailing wind direction and exposure, tree size and species, growth habit, overall vigor, the density and health of the foliage and crown, examination of root and root collar health, dead wood, hanging or broken branches, and evidence of disease-causing bacteria, fungi, or virus.

Tools Utilized: Binoculars, compass, hammer, diameter tape, clinometer.

Timeline – This assessment covers a five-year period and is based on conditions present at the time of the assessment.

3. Definitions:

DBH - Tree size is measured in Diameter at Breast Height (DBH) – standard forestry methodology for measuring tree size.
Large (Regulated) Trees are any tree with a diameter of 10 inches or more, and any tree that meets the definition of an Exceptional Tree.

Exceptional Trees are a tree or group of trees that because of unique historical, ecological, or aesthetic value constitutes an important community resource. An exceptional tree is 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 (see MICC 19.16.010) are considered exceptional trees.

Calculating DBH of Multi-Stemmed Trees – Multi-stemmed trunk combined DBH determined by the square root of the sum of all squared trunk stems DBH.

Driplines – Most trees in groves do not have symmetrical driplines. Therefore, drip line radius was measured in the quadrant assumed to be most affected by future disturbance or where most significant.

Limits of Disturbance – Limits of disturbance shall relate to either Critical Root Zone (CRZ) or Dripline Radius, due to exceedingly wide drip line radii on some trees being out of proportion to actual tree size. CRZ is measured at 1 foot of distance from center of trunk for every inch diameter at 4.5 feet above grade.

Risk – The combination of the likelihood of an event and the severity of the potential consequences. In the context of trees, risk is the likelihood of a conflict or a tree failure occurring and affecting a target, and the severity of the associated consequences – personal injury, property damage, or disruption of activities.

How people perceive risk and their need for personal safety is inherently subjective; therefore, risk tolerance and action thresholds vary. What is within the tolerance of one person may be unacceptable to another. It is impossible to maintain trees completely free of risk—**some level of risk must be accepted to experience the benefits that trees provide**.

Explanation of Tree Conditions

Poor – A tree described with a poor condition would have a combination of the following features: low vigor, sparse crown density, and few interior branches. The crown could be unbalanced or contain many dead twigs/branches. It may also have been topped, tipped, or mal-pruned. The trunk could have cracks, cavities, conks/mushrooms, and evidence of decay within the tree.

Fair – A fair description would describe a tree with normal vigor and crown density. The tree may possess one or possibly two of the above listed qualities but overall is in decent health. Improvements of site conditions could improve the trees health.

Good – Trees listed in good condition will have high vigor with a thick crown density. It would have few, if any defects, and would be a good example of that specific tree.

4. Tree Inventory – Onsite Trees

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Category	Overall Condition	Overall Risk Rating	Retained or Removed	Comments
59	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	27	30’	15’	Large	Good	Low	Retain	
Recommendation		Requires tree protection measures outlined in sections 7, 8, and 9.									
60	**3024059176**	Western Hemlock *Tsuga heterophylla*	Evergreen conifer	20	30’	15’	Large	Good	Low	Retain	
Recommendation		Requires tree protection measures outlined in sections 7, 8, and 9.									
61	**3024059176**	English Laurel *Prunus laurocerasus*	Evergreen	12	30’	15’	Large	Good	Low	Retain	
Recommendation		Requires tree protection measures outlined in sections 7, 8, and 9.									
62	**3024059176**	Bigleaf Maple *Aceer macrophyllum*	Deciduous	29	60’	30’	Large	Good	Moderate	Retain	Disturbance to occur 14’ – 6” from tree. Total area of dripline disturbance = 14.25%.
Recommendation		Requires tree protection measures outlined in sections 7, 8, and 9.									
63	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	31	30’	15’	Large	Good	Moderate	Retain	Disturbance to occur 7’ – 9” from tree. Total area of dripline disturbance = 13.9%.
Recommendation		Requires tree protection measures outlined in sections 7, 8, and 9.									

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Tree Credits	Overall Condition	Overall Risk Rating	Retained or Removed	Comments
64	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	22	30’	7’	Large	Good	Moderate	Retain	Disturbance to occur 8’ – 3” from tree. Total area of dripline disturbance = 13.3%.
Recommendation		Requires tree protection measures outlined in sections 7, 8, and 9.									
65	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	31	30’	8’	Large	Good	Low	Retain	Disturbance to occur 5’ – 7” from tree. Total area of dripline disturbance = 15.6%.
Recommendation		Requires tree protection measures outlined in sections 7, 8, and 9.									
66	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	39	18’	9’	**Exceptional**	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
67	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	13	30’	15’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
68	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	38	30’	15’	**Exceptional**	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Tree Credits	Overall Condition	Overall Risk Rating	Retained or Removed	Comments
69	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	23	25’	13’	Large	Good	Low	Retain	Trunk bows to the south, minor defect.
Recommendation		Will not be impacted by construction activities.									
70	**3024059176**	Bigleaf Maple *Aceer macrophyllum*	Deciduous	31	60’	30’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
71	**3024059176**	Bigleaf Maple *Aceer macrophyllum*	Deciduous	22	60’	30’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
72	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	47	40’	20’	**Exceptional**	Good	Low	Retain	Codominant tree – 24”, 40”.
Recommendation		Will not be impacted by construction activities.									
73	**3024059176**	Bigleaf Maple *Aceer macrophyllum*	Deciduous	55	60’	30’	**Exceptional**	Good	Low	Retain	Multi-stemmed tree – 38”, 40”.
Recommendation		Will not be impacted by construction activities.									

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Tree Credits	Overall Condition	Overall Risk Rating	Retained or Removed	Comments
75	**3024059176**	Bigleaf Maple *Aceer macrophyllum*	Deciduous	18	40’	20’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
76	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	20	30’	15’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
77	**3024059176**	Bigleaf Maple *Aceer macrophyllum*	Deciduous	10	40’	20’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
78	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	14	20’	10’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
79	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	30	30’	15’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Tree Credits	Overall Condition	Overall Risk Rating	Retained or Removed	Comments
80	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	22	30’	15’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
81	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	28	30’	15’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
82	**3024059176**	Bigleaf Maple *Aceer macrophyllum*	Deciduous	10	40’	20’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
83	**3024059176**	Douglas fir *Pseudotsuga menziesii*	Evergreen conifer	20	30’	15’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									
84	**3024059176**	Bigleaf Maple *Aceer macrophyllum*	Deciduous	16	40’	20’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									

Tree ID	Parcel	Species	Type	DBH (Inches)	Average Dripline (diameter)	CRZ / Limits of Disturbance (radius)	Tree Credits	Overall Condition	Overall Risk Rating	Retained or Removed	Comments
85	**3024059176**	Western Hemlock *Tsuga heterophylla*	Evergreen conifer	12	20’	10’	Large	Good	Low	Retain	
Recommendation		Will not be impacted by construction activities.									

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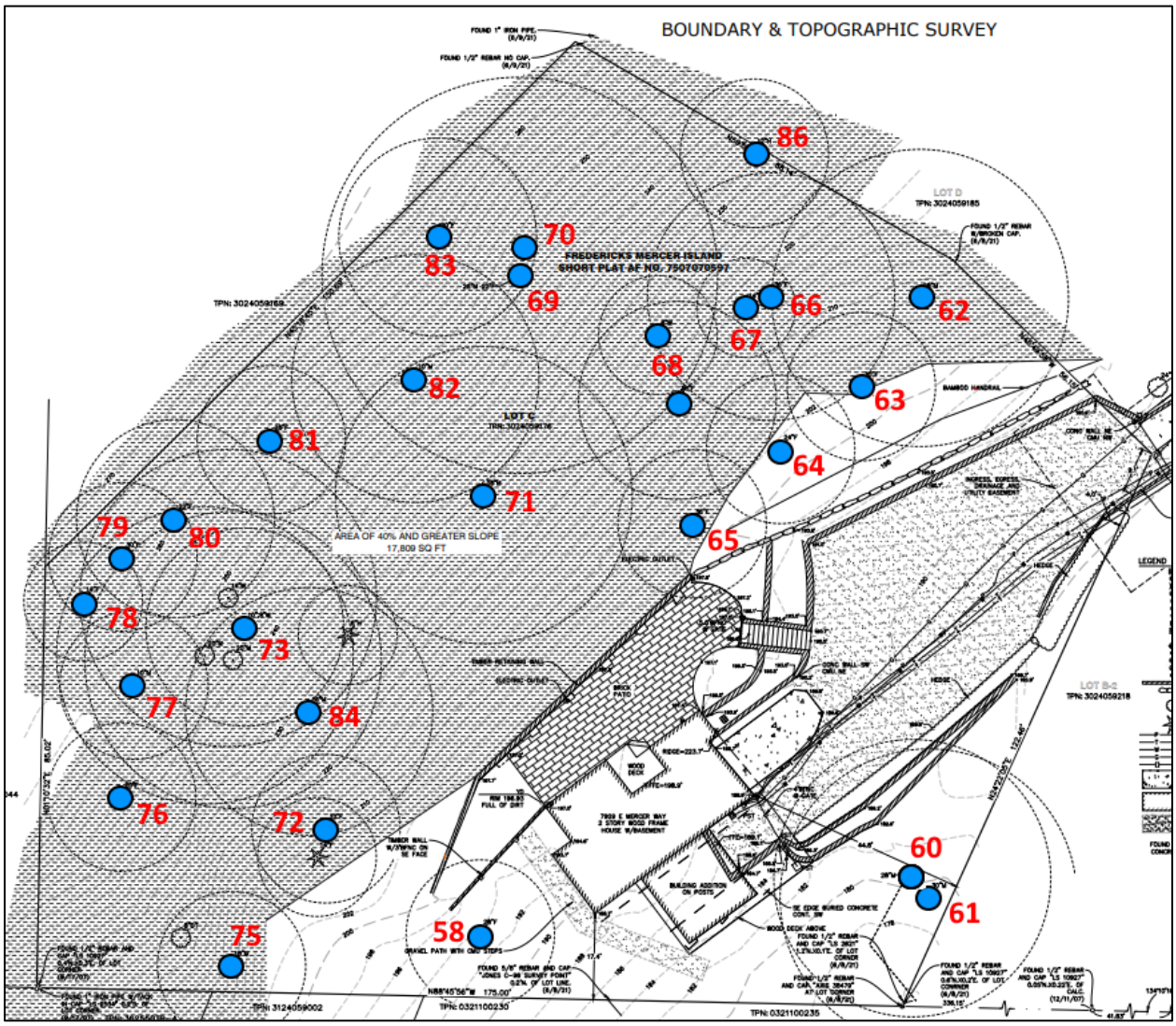
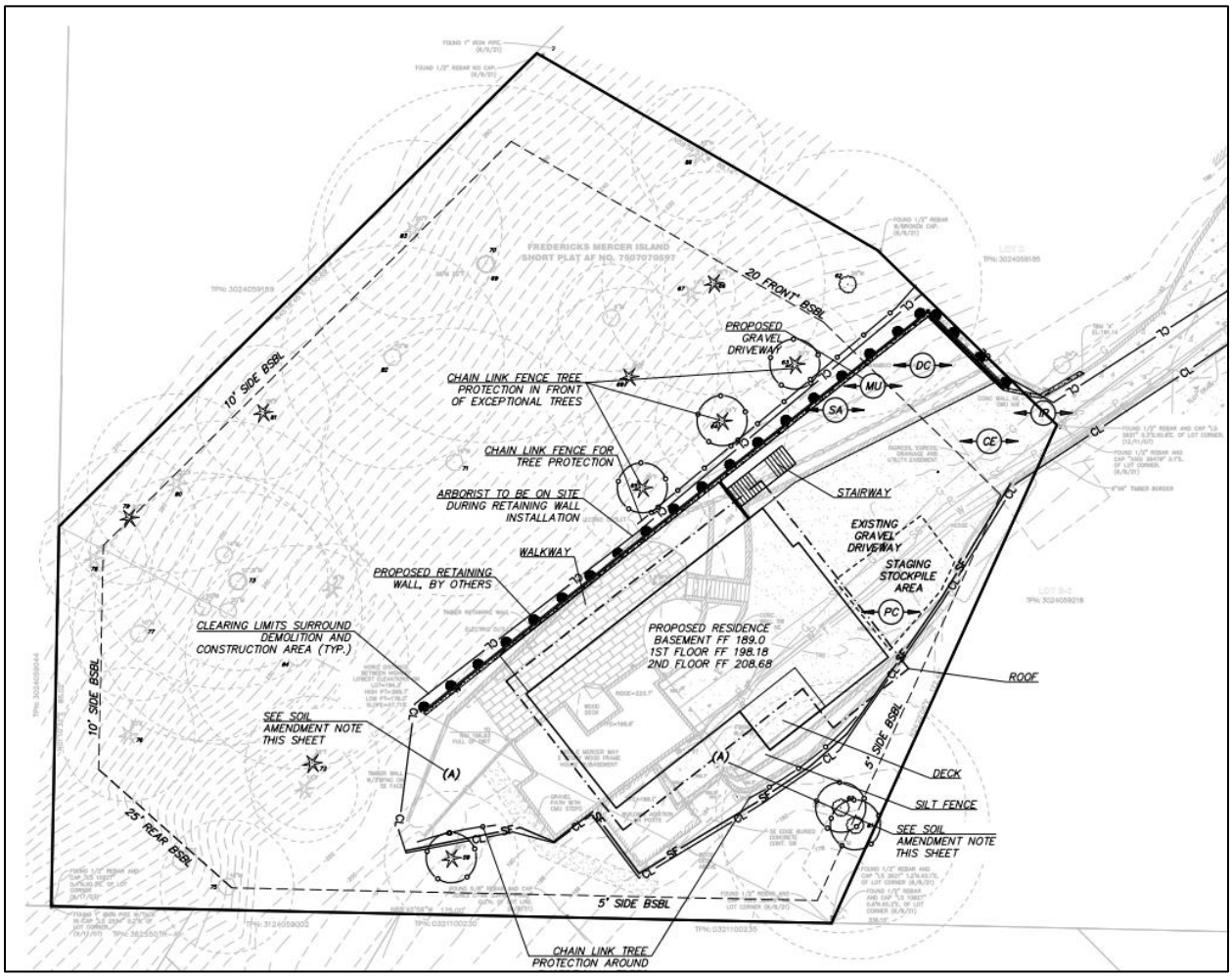
5. Appendix A – Site Map – Snipped from the survey.



6. Proposed Site Plan - Tree Protection



7. Mercer Island Retention Standards - MICC 19.10.060

A. Single-Family Zoning Designations.

1. In the R-8.4, R-9.6, R-12, and R-15 zoning designations, tree retention is required for the following development proposals:

   a. An addition or remodel to an existing single-family dwelling that will result in the addition of more than 500 square feet of gross floor area on a lot with a net lot area of 6,000 square feet or more;

   b. A new single-family dwelling on a lot with a net lot area of 6,000 square feet or more;

   c. A subdivision or short subdivision.

2. Retention Requirement. Development proposals specified under subsection (A)(1) of this section shall retain trees as follows:

   a. A minimum of 30 percent of trees with a diameter of 10 inches or greater, or that otherwise meet the definition of large tree, shall be retained over a rolling five-year period.

   b. In addition to the retention required in subsection (A)(2)(a) of this section, the development proposal shall be designed to further minimize the removal of large trees and maximize on-site tree retention as follows:

      i. Site improvements, including but not limited to new single-family homes, additions to a single-family home, appurtenances, accessory structures, utilities, and driveways, shall be designed and located to minimize tree removal during and following construction.

      ii. The following trees shall be prioritized for retention:

         (a) Exceptional trees;

         (b) Trees with a diameter of more than 24 inches;

         (c) Trees that have a greater likelihood of longevity; and

         (d) Trees that are part of a healthy grove.

      iii. Trees shall not be removed outside the area of land disturbance except where necessary to install site improvements (e.g., driveways, utilities, etc.).

      iv. Tree removal for the purposes of site landscaping should be limited to those trees that will pose a future safety hazard to existing or proposed site improvements.

   c. Provide tree replacement pursuant to MICC 19.10.070

8. Mercer Island Tree Protection Standards - MICC 19.10.080

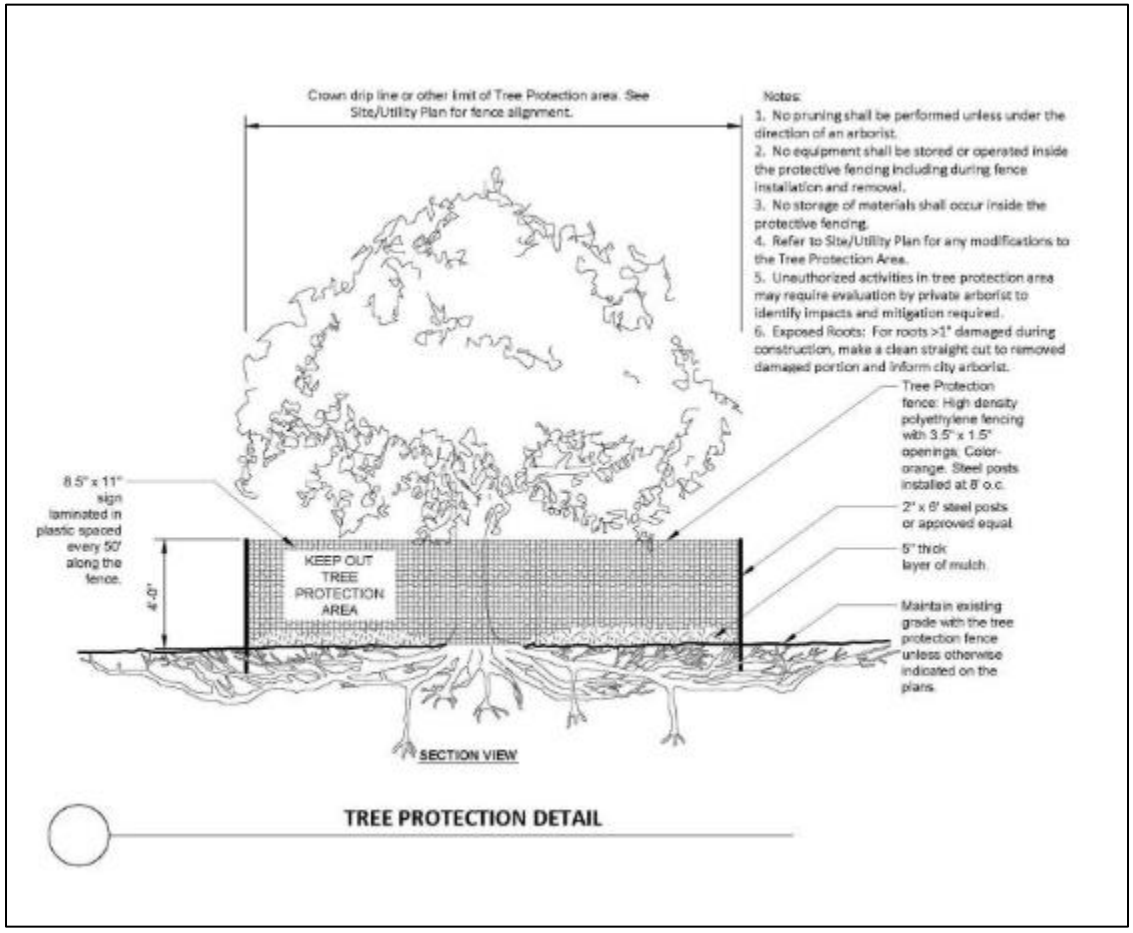
A. To ensure long-term viability of trees identified for protection, permit plans and construction activities shall comply with the then-existing Best Management Practices (BMP) – Managing Trees During Construction, published by the International Society of Arboriculture, adopted by reference. The tree protection plan shall be prepared by a qualified arborist and the plan shall be reviewed for adequacy by the city arborist. All minimum required tree protection measures shall be shown on the development plan set and tree replanting/restoration/protection plan.

B. Alternative Methods. The city arborist may approve construction-related activity or work within the tree protection barriers if the city arborist concludes:

1. That such activity or work will not threaten the long-term health of the retained tree(s); and

2. That such activity or work complies with the protective methods and best building practices established by the International Society of Arboriculture. (Ord. 17C-15 § 1 (Att. A)).

9. Tree Protection Detail



10. ISA Recommended Tree Protection Information

The Pacific Northwest Chapter of the ISA Recommends the following for protecting trees from damage during construction.

https://pnwisa.org/tree-care/damage/protecting-trees-from-damage/

Critical Root Zone Protection

A critical step in retaining healthy trees is the protection of tree roots from disturbance. Each tree has a critical root zone (CRZ) that varies by species and site conditions. The International Society of Arboriculture defines CRZ as an area equal to a 1-foot radius from the base of the tree's trunk for each 1 inch of the tree's diameter at 4.5 feet above grade (referred to as diameter at breast height).

Another common rule of thumb is to use a tree's drip line to estimate the CRZ (see figure). Evaluate both of these and choose whichever provides the larger CRZ.

Under certain circumstances, disturbing or cutting roots in a CRZ may be unavoidable. In such cases, the work should be done only under the on-site supervision of an ISA Certified Arborist.

Cutting or disturbing a large percentage of a tree's roots increases the likelihood of the tree's failure or death. Never cut tree roots that are more than four inches wide; roots that large are usually structural. Cutting them can destroy the stability of the tree, causing it to fall over!

If you must cut tree roots, do so cleanly with sharp tools. Never tear with a backhoe or other dull instrument. A clean cut encourages good wound closure and confines the spread of decay. If damage is severe, consider removing the tree because its stability may have been compromised.

Activities to Avoid in the Critical Root Zone

The CRZ that should be protected from negative interactions. Avoid the following activities:

- Stockpiling construction materials or demolition debris
- Parking vehicles or equipment
- Piling soil and/or mulch
- Trenching for utilities installation or repair, or for irrigation system installation
- Changing soil grade by cutting or filling
- Damaging roots by grading, tearing, or grubbing
- Compacting soil with equipment, vehicles, material storage, and/or foot traffic

- Contaminating soil from washing out equipment (especially concrete) and vehicle maintenance
- Installing impervious parking lots, driveways, and walkways
- Attaching anything to trees using nails, screws, or spikes
- Wounding or breaking tree trunks or branches through contact with vehicles and heavy equipment
- Wounding trunks with string weed trimmers and lawn mowers
- Causing injury by fire or excessive heat

During Construction

Monitor compliance with tree protection requirements and the impacts of construction activities on tree health regularly during construction. If there are incursions into the root zone, ensure roots have been severed cleanly, enforce penalties, and reestablish the protection zone. Confer with your contractors to make sure that construction offices, vehicular parking, worker break sites, concrete washout areas or other pollutants, and material storage will remain outside of protected areas. Diligence in maintaining barriers and in enforcing your protection plan will pay great dividends at the end of the project when the tree is still healthy.

Following the guidelines laid out above will serve in most situations, but occasionally construction plans will require impingement on the CRZ.

Trenching

Trenching is a standard way to install utilities. **It is best to entirely avoid trenching through the CRZ** (see figure); such practice could severely destabilize a tree, as well as adversely affect its health through loss of roots. Workers performing such operations should understand that 85% of the mass of a tree's root system is located within the CRZ and that most of a tree's roots are within the top 18 inches of soil. Alter routes of underground infrastructure or use alternate methods such as pipe boring. Tunneling at least 18 inches beneath the root zone will prevent loss of critical root mass if underground utilities must unavoidably be placed within the CRZ.

A decision must be made as to where best to locate utility trenches. Planners and designers must be made aware that trenches may not cross a CRZ and design alternate alignments accordingly; such realignments are not the responsibility of the construction crew.

Best practices for trenching include the following:

- Protect the trunks of high-value trees from scraping and gouging to a height of at least eight feet.
- Keep equipment and excavated backfill on the side furthest from the tree, not against the trunk.

- Place excavated backfill on a plastic or canvas tarp outside the CRZ.
- Prune away jagged roots back to the trench wall closest to the tree. Use a handheld pruner or pruning saw to make sharp, clean cuts.
- Replace the backfill on the same day if at all possible. Cover exposed roots with wet burlap to prevent them from drying out; in hot dry conditions, small roots may be injured in as little as 30 minutes.
- Do not allow chemicals, trash, or other foreign debris to become mixed with the backfill.
- If earthwork specifications allow it, firm the backfill to the same compaction as the surrounding soil and no more.
- Water the backfill to prevent excessive root drying.

Grade or Ground Level Changes

Grade changes should be avoided in order to prevent serious damage or death to a tree. Fill that is added over existing soils can smother and kill roots, or invite disease if piled around the trunk. Even temporary fills such as stockpiling mulch or soil in the CRZ of a tree for as little as several days during the construction process can have severe, long-term negative effects, though symptoms may not appear for several years.

The extent of injury from adding soil around a tree varies with the kind, age, and condition of the tree; the depth and type of fill; drainage; and several other factors. Maple, oak and evergreens are most susceptible, while elm, ash, willow, sycamore, and locust are least affected.

Little can be done to save trees that have been suffering from soil added over an extended period of time. It is prudent to consider possible damage that may occur to a tree and take alternative action before the fill is made; prevention is less expensive and more effective than attempting to correct the situation after damage has been done.

Best practices for fill operations include the following:

- Never place any fill or organic materials directly against the tree.
- Never compact the soil within the CRZ.
- If using no more than two to four inches of fill around existing trees, significant damage may be avoided if the fill has a coarser texture than the existing soil.

Less damage to a tree's roots is likely with a lowered grade than when it is raised, unless exposing or removing a great deal of the root mass. A general rule-of-thumb used by landscape architects is to remove no more than six inches of soil from the existing grade in the CRZ; however, this is dependent on the soils in which the tree is growing. A tree's roots may all exist in the top foot of a shallow soil; removing the top six inches would have tremendous negative impact in that case.

Best practices for removing soil include the following:

- Consider removal and replacement if the tree is young, in poor condition, an undesirable species, or very susceptible to insects and disease.
- Plan grade changes well in advance of construction using the appropriate method to prevent injury to desirable trees.
- Use retaining walls or terraces to avoid excessive soil loss in the area of greatest root growth.
- Spread mulch over the exposed root area when possible to help prevent soil erosion, reduce moisture loss, and keep soil temperatures lower.
- Provide supplementary water when rainfall is less than one inch per week.
- Prune roots to prepare the tree for root loss due to grade lowering. Root pruning is best left to an ISA Certified Arborist, who can take into account the variables necessary to reduce the stress of the pruning to the tree.

11. Certificate of Performance

I, Andy Crossett, certify that:

- I have personally inspected the trees and the property referred to in this report and have stated my findings accurately.
- I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
- The analysis, opinion, and conclusions stated herein are my own and are based on current industry standards, scientific procedures and facts.
- My analysis, opinion, and conclusions were developed and this report has been prepared according to commonly accepted arboriculture practices.
- No one provided significant professional assistance to me, except as indicated within the report.
- My compensation is not contingent upon the reporting of predetermined conclusion that favors the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

I further certify that I am a member in good standing of the International Society of Arboriculture (ISA) and an ISA Certified Arborist (#PN-7375A) and Tree Risk Assessment Qualified. I also am a Certified Professional Horticulturist through the Washington State Nursery and Landscape Association.

If you have any questions about this report, please contact me at 206-310-8254 or andycrossett@hotmail.com.

Andy Crossett

References:

Dirr, Michael A. *Manual of Woody Landscape Plants Their Identification, Ornamental Characteristics, Culture, Propagation, and Use.* Stripes Publishing L.L.C., 2009

Smiley, E. Thomas, Nelda Matheny, and Sharon Lilly. *Tree Risk Assessment (Best Management Practices, Second Edition)*. Champaign: International Society of Arboriculture, 2017.

Dunster, Julian A., E. Thomas Smiley, Nelda Matheny, and Sharon Lilly. Tree Risk Assessment Manual. Champaign, Illinois: International Society of Arboriculture, 2013.

Shigo, Alex L. *A New Tree Biology: Facts, Photos, and Philosophies on Trees and Their Problems and Proper Care*. Shigo and Trees, Associates, 1986.

12. Credentials & Experience

History

I have been involved in the horticulture industry since 2002 - first working as a laborer and eventually becoming a supervisor for a small landscape company located locally in Bellevue, WA. After working in the field for a few years, I decided that I would like a formal education. I attended Lake Washington Institute of Technology and in 2011 graduated with a degree in Environmental Horticulture. Immediately after graduating, I took the ISA and CPH exams to become a certified arborist and certified professional horticulturist. I then moved on to work as a member of the Street Tree and Irrigation Department for the City of Bellevue. In 2013, I opened Tree Frog LLC and began consulting. I am also the head gardener for a 5 acre estate in Medina, WA.

Education

Lake Washington Institute of Technology – Associates Degree, Environmental Horticulture

My education from Lake Washington Institute of Technology's horticulture program focused on the following areas of study: botany, plant propagation, greenhouse management, soils, pruning, pest and disease management, landscape design, turf grass management, and plant identification.

Credentials

Certified Professional Horticulturist through the Washington State Nursery & Landscape Association #2537

In 1978, WSNLA created a two-pronged professional certification program that was known as the Washington Certified Nurseryman or Washington Certified Landscaper. In 2005, WSNLA revamped and upgraded the certification program and renamed the designation as Certified Horticultural Professional. With nearly 400 Certified Professional Horticulturists, the CPH program is the largest community of state certifications serving professional horticulturists in Washington State.

To earn a WSNLA Certified Professional Horticulturist credential, you must pass a written exam that tests your skills and knowledge as a horticultural professional based on study materials and practical applications.

You must provide the equivalent of one year of work experience (2000 hours) with a licensed nursery, landscape contractor or WSNLA-approved business or institution.

Certified Arborist and Qualified Tree Risk Assessor, through the International Society of Arboriculture #PN-7375A.

To earn an ISA Certified Arborist® credential, you must be trained and knowledgeable in all aspects of arboriculture. ISA Certified Arborist® have met all requirements to be eligible for the exam, which includes three or more years of full-time, eligible, practical work experience in arboriculture and/or a degree in the field of arboriculture, horticulture, landscape architecture, or forestry from a regionally accredited educational institute. This certification covers a large number of topics giving the candidates flexibility in the arboricultural profession. A code of ethics for ISA Certified Arborists® strengthens the credibility and reliability of the work force. This certification is accredited by the American National Standards Institute, meeting and exceeding ISO 17024.

Continued Education

- Trees and the Law
- Report Writing for Arborists
- Defensible Tree Appraisal
- Developing Field Assessment Skills for Common PNW Tree Diseases
- Climbing Safety Case Studies
- WSNLA PROseries seminar Pest & Disease
- Tree Disorder Diagnosis Online Workshop & Live Discussion
- Why Trees Fail Online Workshop & Live Discussion
- Arbor Chat: A Deep Dive Into the ISA Certified Arborist® Code of Ethics

Volunteering

Dog Mountain Farm, CSA

Dog Mountain Farm serves the Snoqualmie Valley community and Seattle area by providing Certified Naturally Grown farm-fresh vegetables, fruit, eggs, herbs, and flowers. They also offer educational tours for schools and groups.

13. Assumptions & Limiting Conditions

a) A field examination of the site was made on **6/3/2021**. My observations and conclusions are as of that date.

b) Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/arborist can neither guarantee nor be responsible for accuracy of information provided by others.

c) Unless stated otherwise: 1) information contained in this report covers only those trees that were examined and reflects the conditions of those trees at the time of inspection; and 2) the inspection is limited to visual examination of the subject trees without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied that problems or deficiencies of the subject tree may not arise in the future.

d) All trees possess the risk of failure. Trees can fail at any time, with or without obvious defects, and with or without applied stress. A complete evaluation of the potential for this (a) tree to fail requires excavation and examination of the base of the subject tree. Permission of the current property owner must be obtained before this work can be undertaken and the hazard evaluation completed.

e) Other trees with similar defects are standing in the neighborhood, and have been so for some time. Trees are living biological organisms, and I cannot predict nor guarantee their stability or failure.

f) Sketches, drawings and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural report of surveys unless expressed otherwise. The reproduction of any information generated by architects, engineers, or other consultants on any sketches, drawings, or photographs is for the express purpose of coordination and ease of reference only. Inclusion of said information on any drawings or other documents does not constitute a representation by Tree Frog LLC as to the sufficiency or accuracy of said information.

g) The consultant/appraiser shall not be required to give testimony or attend court because of this report unless subsequent contractual arrangements are made.

h) Loss or alteration of any part of this report invalidates the entire report.

i) Unless required by law otherwise, possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.