ARBOR INFO LLC
2406 N Castle Way Brier, WA, 98036

March 12, 2020

Mr. Greg Petrie
2431 60th Ave SE
Mercer Island, WA
gpetrie@copiersnw.com

Dear Mr. Petrie:

At your request on March 12, 2020, I inspected a bigleaf maple *(Acer macrophyllum)* tree standing at your residence. The purpose of the inspection is to assess the current condition of the tree and make recommendations for future management. My summary report follows.

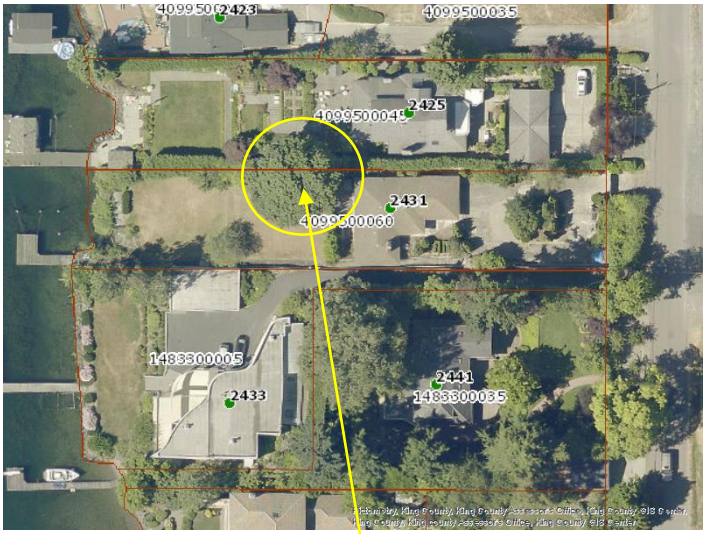
Competence: My credentials include:

- Certified Arborist (International Society of Arboriculture, ISA #23136) (PN-0426A)
- Registered Consulting Arborist (American Society of Consulting Arborists #499).
- Tree Risk Assessment Qualified (ISA).
- Certified forester (Society of American Foresters #951)
- Bachelor of Science degree in Forest Management from the University of Washington

The tree was assessed for condition to the standards of the International Society of Arboriculture (ISA) level 2 TRAQ assessment. (Tree Risk Assessment Qualified)

TRAQ Level 2 Assessment

- Locate and Identify Subject Trees
- Review Site History
- Assess Tree Health
- Record Observations: defects, vigor, site conditions
- Determine the likelihood of failure before and after site disturbance activities
- Recommend Protection measures and Mitigation if appropriate
- Suggest re-inspection levels

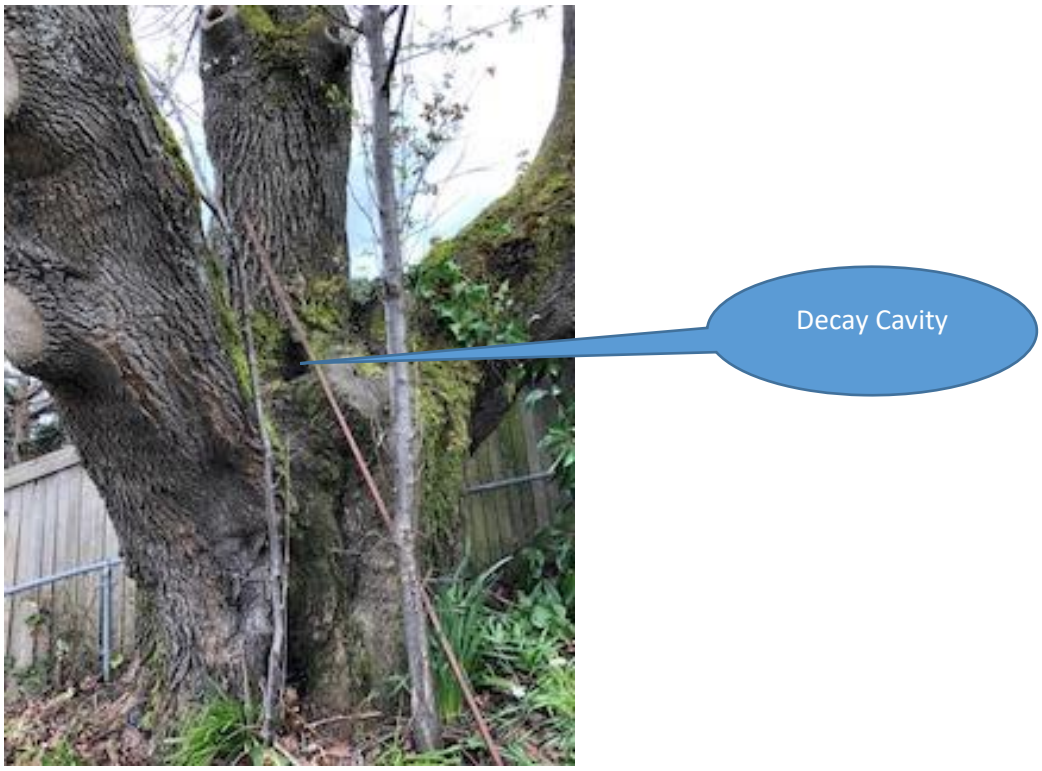


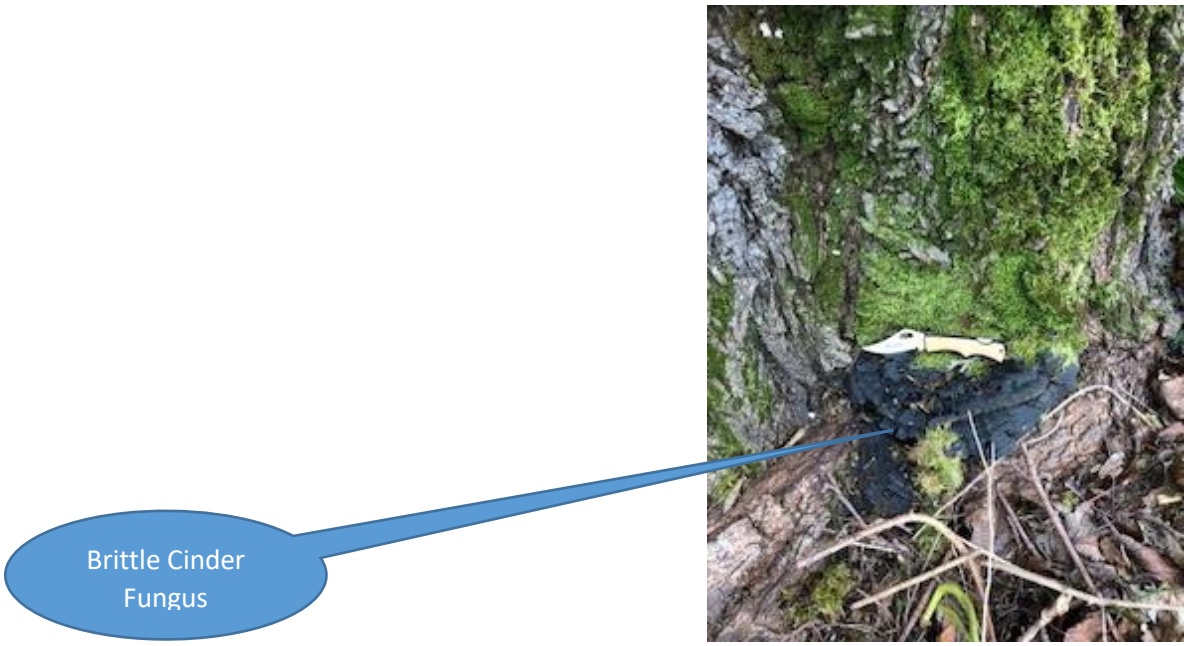
Subject Tree

Observations

The subject tree is a 73-inch (measured at 4.5-feet above ground) big leaf maple standing about 80-feet tall near the north edge of the property. The tree has an 80-percent live green crown on three co-dominant trunks. It stands about 26-feet westerly of the residence outdoor entertainment area.

The main bole of the tree is hollow from 6-7-feet above ground to ground level. The tree is infected with brittle cinder fungus *(Kretzschmaria deusta).*





Surface roots across the lawn are hollow.

By virtue of its diameter (over 30-inches) the tree is a designated by the City as "Exceptional". (MIC19.10).

Discussion

Brittle cinder fungus is common in maple and causes soft rot, breaking down both cellulose and lignin. It is one of the most common causes of sudden tree failure. The ISA Basic Tree Risk Form is attached and indicates that the subject tree is at high risk of failure.

City of Mercer Island requires planting of six replacement trees. I am recommending Shore pine *(Pinus contorta)* as this tree will develop into a tall narrow coniferous (evergreen) form. The attached plan indicates the approximate preferred location of the replacement trees.

Summary

In my opinion, this tree is a high risk hazard and should be removed. The "Non Development Tree Permit Application" is attached.

Limits of Assignment

1. Any legal description provided to the consultant is assumed to be correct. Ownership of the subject trees and plants as provided by the client is assumed to be correct. No responsibility is assumed for legal matters.
2. Care has been taken to obtain all information from reliable sources. The consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
3. The consultant shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including additional fees.
4. This report and any values expressed herein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.
5. The exhibits in this report are included to assist the reader and are not necessarily to scale.
6. Unless expressed otherwise, information in this report covers only items that were examined, and reflects the condition of those items at the time of inspection. The inspection is limited to visual examination of accessible portions of the trees and plants.
7. Loss or alteration of any part of the report invalidates the entire report. Ownership of any documents related to this report passes to the client only.
8. The liability of ArborInfo LLC its contractors and employees is limited to the client only and only up to the amount of the fee actually received for the assignment.
9. *THERE IS NO WARRANTY SUGGESTED FOR ANY OF THE TREES SUBJECT TO THIS REPORT. WEATHER, LATENT TREE CONDITIONS, AND FUTURE MAN-CAUSED ACTIVITIES COULD CAUSE PHYSIOLOGIC CHANGES AND DETERIORATING TREE CONDITION. OVER TIME, DETERIORATING TREE CONDITIONS MAY APPEAR AND THERE MAY BE CONDITIONS, WHICH ARE NOT NOW VISIBLE WHICH, COULD CAUSE TREE FAILURE. THIS REPORT OR THE VERBAL COMMENTS MADE AT THE SITE IN NO WAY WARRANT THE STRUCTURAL*

STABILITY OR LONG-TERM CONDITION OF ANY TREE, BUT REPRESENTS MY OPINION BASED ON THE OBSERVATIONS MADE.

10. *NEARLY ALL TREES IN ANY CONDITION STANDING WITHIN REACH OF IMPROVEMENTS OR HUMAN USE AREAS REPRESENT HAZARDS THAT COULD LEAD TO DAMAGE OR INJURY.*

11. *MANY JURISDICTIONS REQUIRE PERMITS PRIOR TO REMOVAL OF RESIDENTIAL TREES. CITY AUTHORITIES SHOULD BE CONTACTED BEFORE TREE REMOVAL.*

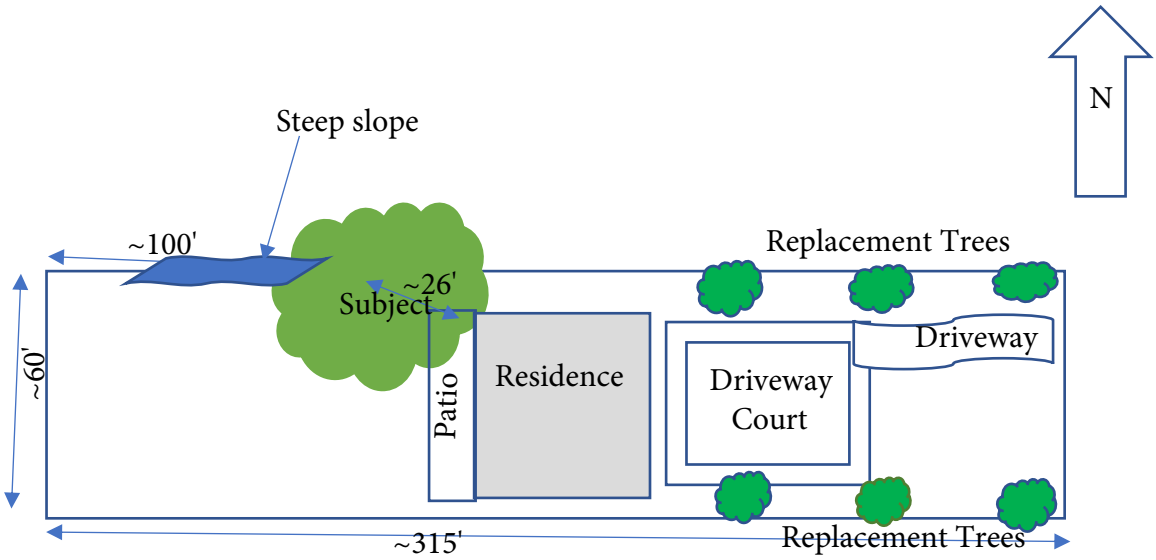
Respectfully Submitted,

Thomas M. Hanson,

Certified Arborist #23136, PN0426A

Registered Consulting Arborist #499

Petrie Tree Removal and Replacement Plan
2431 60th Ave SE, Mercer Island, WA
Not to Scale



Basic Tree Risk Assessment Form

Client Greg Petrie Date 3/12/2020 Time 1PM

Address/Tree location 2431 60th Ave SE Tree no. 1 Sheet 1 of 2

Tree species Big leaf maple (Acer macrophyllum) dbh 73" Height ~80 Crown spread dia. 64'

Assessor(s) Tom Hanson, PNO426A Tools used Probe, Tape, Hypsometer, **Time frame** 1 Year

Target Assessment

Target number	Target description	Target protection	Target zone: Target within drip line	Target zone: Target within 1 x Ht.	Target zone: Target within 1.5 x Ht.	Occupancy rate (1–rare, 2 – occasional, 3 – frequent, 4 – constant)	Practical to move target?	Restriction practical?
1	Residences	None	✔			4	No	No
2								
3								
4								

Site Factors

History of failures _____ **Topography** Flat☐ Slope☐ 5 % **Aspect** W

Site changes None■ Grade change☐ Site clearing☐ Changed soil hydrology☐ Root cuts☐ Describe _____

Soil conditions Limited volume☐ Saturated☐ Shallow☐ Compacted☐ Pavement over roots☐ _____% Describe _____

Prevailing wind direction SW **Common weather** Strong winds■ Ice☐ Snow☐ Heavy rain■ Describe Typical PNW

Tree Health and Species Profile

Vigor Low☐ Normal■ High☐ **Foliage** None (seasonal)■ None (dead)☐ Normal _____% Chlorotic _____% Necrotic _____%

Pests/Biotic Basal and Trunk Decay **Abiotic** _____

Species failure profile Branches■ Trunk■ Roots■ Describe Failure common on over-mature trees

Load Factors

Wind exposure Protected☐ Partial☐ Full■ Wind funneling☐ _____ **Relative crown size** Small☐ Medium☐ Large■

Crown density Sparse☐ Normal■ Dense☐ **Interior branches** Few☐ Normal■ Dense☐ **Vines/Mistletoe/Moss** ☐ _____

Recent or expected change in load factors _____

Tree Defects and Conditions Affecting the Likelihood of Failure

— Crown and Branches —

Unbalanced crown☐ LCR 80 %

Dead twigs/branches☐ _____% overall Max. dia. _____

Broken/Hangers Number _____ Max. dia. _____

Over-extended branches☐

Pruning history

Crown cleaned☐ Thinned☐ Raised☐

Reduced☐ Topped☐ Lion-tailed☐

Flush cuts☐ Other _____

Cracks☐ _____ Lightning damage☐

Codominant■ Three large Codominants Included bark☐

Weak attachments■ _____ Cavity/Nest hole 50 % circ.

Previous branch failures☐ _____ Similar branches present☐

Dead/Missing bark☐ Cankers/Galls/Burls☐ Sapwood damage/decay☐

Conks☐ Heartwood decay■ _____

Response growth Fair

_____ Condition(s) of concern _____

Part Size _____ Fall Distance _____

Load on defect N/A☐ Minor☐ Moderate☐ Significant■

Likelihood of failure Improbable☐ Possible■ Probable☐ Imminent☐

Part Size _____ Fall Distance _____

Load on defect N/A☐ Minor☐ Moderate☐ Significant■

Likelihood of failure Improbable☐ Possible☐ Probable■ Imminent☐

— Trunk —

Dead/Missing bark☐ Abnormal bark texture/color☐

Codominant stems■ Included bark☐ Cracks☐

Sapwood damage/decay■ Cankers/Galls/Burls☐ Sap ooze☐

Lightning damage☐ Heartwood decay■ Conks/Mushrooms■

Cavity/Nest hole 80 % circ. Depth 7' Poor taper☐

Lean _____° Corrected? _____

Response growth fair

Condition(s) of concern Kretschmaria, brittle cinder fungus

Part Size Whole tree Fall Distance 80'

Load on defect N/A☐ Minor☐ Moderate☐ Significant■

Likelihood of failure Improbable☐ Possible☐ Probable■ Imminent☐

— Roots and Root Collar —

Collar buried/Not visible☐ Depth_____ Stem girdling☐

Dead☐ Decay■ Conks/Mushrooms☐

Ooze☐ Cavity☐ _____% circ.

Cracks☐ Cut/Damaged roots■ Distance from trunk 10-20'

Root plate lifting☐ Soil weakness☐

Response growth Fair

Condition(s) of concern Decayed root structure

Part Size Whole tree Fall Distance 80'

Load on defect N/A☐ Minor☐ Moderate☐ Significant■

Likelihood of failure Improbable☐ Possible☐ Probable■ Imminent☐

Risk Categorization

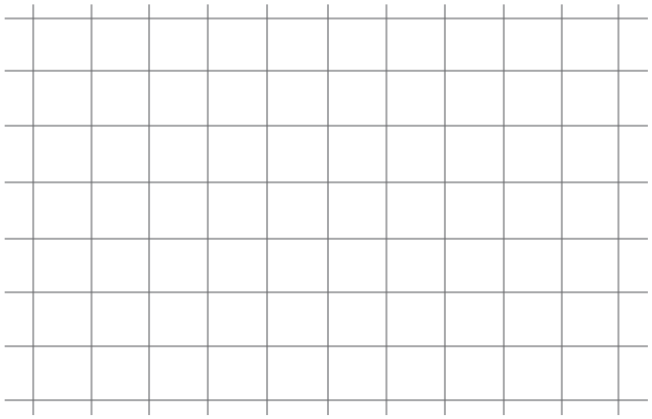
Target (Target number or description)	Tree part	Condition(s) of concern	Likelihood: Failure: Improbable	Failure: Possible	Failure: Probable	Failure: Imminent	Impact: Very low	Impact: Low	Impact: Medium	Impact: High	Failure & Impact (from Matrix 1): Unlikely	Somewhat	Likely	Very likely	Consequences: Negligible	Minor	Significant	Severe	Risk rating (from Matrix 2)
Residences	Whole Tree	Extensive decay			●					●			●				●		High

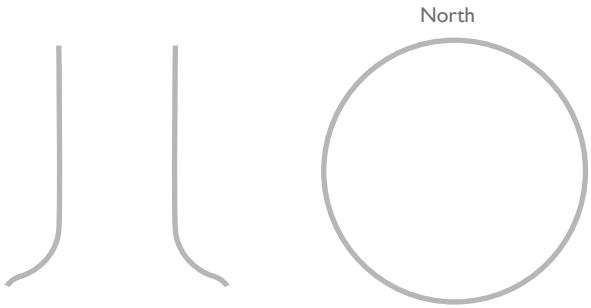
Matrix 1. Likelihood matrix.

Likelihood of Failure	Likelihood of Impact: Very low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

Matrix 2. Risk rating matrix.

Likelihood of Failure & Impact	Consequences of Failure: Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low





Notes, explanations, descriptions

Over mature native tree with extensive lower bole, codominant and root decay

Mitigation options

1. Remove — **Residual risk** None
2. _____ — **Residual risk** _____
3. _____ — **Residual risk** _____
4. _____ — **Residual risk** _____

Overall tree risk rating Low ☐ Moderate ☐ High ■ Extreme ☐

Overall residual risk None ■ Low ☐ Moderate ☐ High ☐ Extreme ☐ **Recommended inspection interval** Yearly

Data ■ Final ☐ Preliminary **Advanced assessment needed** ■ No ☐ Yes-Type/Reason _____

Inspection limitations ☐ None ■ Visibility ☐ Access ☐ Vines ☐ Root collar buried Describe seasonal leaf drop

This datasheet was produced by the International Society of Arboriculture (ISA) — 2017

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org
Submit to: epermit.tech@mercergov.org

CITY USE ONLY		
PERMIT #	**RECEIPT #**	**FEE**
DATE RECEIVED	**RECEIVED BY**	

Non-Development Tree Permit Application

SITE ADDRESS 2431 - 60th AVE SE		
PROPERTY OWNER Greg Petrie	ADDRESS 2431 60th Ave SE, Mercer Is.	PHONE # 206-519-3150 EMAIL gpetrie@copiersnw.com
APPLICANT ☑Same as Owner ☐Same as Contractor	ADDRESS	PHONE # EMAIL
CONTRACTOR: ☐ Same as Owner	ADDRESS	PHONE # EMAIL

STATE CONTRACTORS LICENSE		MERCER ISLAND BUSINESS LICENSE	

Your tree contractor needs to have a City of Mercer Island Business license that they can get online through http://bls.dor.wa.gov/, or you need to sign the owner as contractor form prior to permit issuance.

Required Information

☑ Site plan of subject property showing:

- ☑ Street Address
- ☑ Property Lines
- ☑ Approximate locations of existing buildings, structures, and driveways
- ☑ Location of tree(s) to be removed relative to buildings, structures, or property lines
- ☑ Proposed location(s) of replacement trees

☑ List the **species** (ie. Douglas Fir, not just fir) and **diameter** in inches (measured at 4.5' above the ground) of all trees to be cut in the space below or clearly indicate this information on the site plan.

Big leaf maple

Please answer the following questions:

Is this tree a hazard (imminent threat to life or property)? See code 19.10.020

☑ YES ☐ NO

Has there been development (construction or exterior alteration of any buildings) in the past five years on the subject property?

☐ YES ☑ NO

Do you anticipate there will be development on the subject property in the next five years?

☐ YES ☑ NO

Are you aware of a bald eagle nest within 660 feet of this property?

☐ YES ☑ NO

Are you aware of bald eagles foraging, nesting, or roosting near this property?

☐ YES ☑ NO

[1] Critical areas include steep slopes, wetlands and buffers, water courses and buffers, and bald eagles nest buffers.

SPECIAL CONDITIONS

1. All work is to be done at the applicant's expense, including clean up and removal of all debris.
2. Standard safety precautions of the tree care industry are to be adhered to at all times.
3. The work is to be performed in such a way as not to do damage to any road surface, overhead or underground utilities.
4. Traffic control is the responsibility of the applicant. It is the applicant's responsibility to ensure the contractor is informed of this. If vehicles or equipment must be placed in the public right-of-way, a Right-of-Way use permit may be required.
5. The City assumes no liability in connection with this action.
6. All traffic lane restrictions and closures require a 24 hour notice to Police Dispatch at **425.577.5656.**
7. This permit is valid for three (3) years from issuance date.

NOTICE TO APPLICANT

In accepting this permit, the permittee, his successors, heirs and assigns agree to protect and hold harmless the City of Mercer Island from all claims, action or damages of every kind and description which may accrue to or suffered by any persons, corporations or property by reason of the performance of the above described work, cost of materials and labor, character of materials used or manner of installation, maintenance and operation, and in case any such suit or action is brought against said City of Mercer Island or damage arising out of or by reason of any of the above causes, the grantee, his successors, heirs or assigns will upon notice to him or them of commencement of such action, defend the same at his or their own sole expense and will fully satisfy any judgement after the said suit or action shall have finally been determined if adversely to the City of Mercer Island.

The city arborist may revoke, annul or terminate this permit if grantee fails to comply with any or all of its provisions, requirement or regulations as herein set forth or through willful or unreasonable neglect, fails to heed or comply with notices given him.

I hereby certify that I am the owner of the subject property or I have been authorized by the owner(s) of the subject property to represent this application and that I have read and examined the application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be met whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulating construction of the performance of construction.

	3/12/2020
Signature of Owner/Authorized Agent	Date

[1] Critical areas include steep slopes, wetlands and buffers, water courses and buffers, and bald eagles nest buffers.

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT
9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org
Inspection Requests: Online: www.mybuildingpermit.com VM: 206.275.7730

Non-Development Tree Permit Application Submittal Guide

Protecting, enhancing, and maintaining trees are key community values on Mercer Island. Removal of a tree that is not related to development (construction), requires a permit if the tree(s) to be removed

a. Have a diameter of 10 inches or more, measured at 4.5 feet above the ground
b. Are "exceptional", refer to definition on page 6, or
c. Are located in a critical area[1].

Trees that do not meet this standard (i.e. are less than 10" in diameter, etc.), do not require a permit prior to removal. To maintain tree coverage, replacement trees are also required for trees that are removed.

HOW DO I GET A TREE PERMIT?

Removal of trees that are 10" or greater in diameter but are **not** exceptional, or located in a critical area[1] require a tree permit application. Simply fill out the tree permit application (found on page 2), making sure to include a site plan with the location(s) of the trees to be removed and where replacement trees will be replanted. These permit(s) are typically issued on the same day as submitted and can be obtained at the Permit Counter.

In critical areas[1], removal of trees that are 10" or greater in diameter, or **are** exceptional will require a tree permit application and additional plan review. The completed application and site plan can be submitted at the permit counter. Site plans need to include location of trees to be removed and where replacement trees will be planted. Target times for tree permits that require plan review is typically two weeks. These permits usually require signature of a hold harmless/indemnification agreement. For more information on how to determine whether a tree is located in a critical area or is, considered exceptional refer to pages 5 and 6.

WHAT IF MY TREE IS A HAZARD?

Trees that pose an imminent threat to life or property, such as tree limbs or trunks that are demonstrably cracked, leaning toward overhead utility lines or structures, or are uprooted by flooding, heavy winds or storm events, still require a permit. If you have a hazard tree that needs to be removed immediately, please call us, 206-275-7605, and let us know that you will be removing the hazard tree. Take photos that depict the nature of the hazard.

After the tree has been removed a permit must be applied for within 14 days and include documentation of the hazard, either with a report from a qualified arborist or photographs. Hazard trees that are removed will still need to meet the replanting requirements.

DO I NEED A PERMIT IF I WANT TO TRIM MY TREES?

Pruning or trimming of trees up to a maximum of 25% of the total leaf area through crown thinning, crown cleaning, windowing or crown raising does not require a tree permit, unless in a critical area. Crown topping

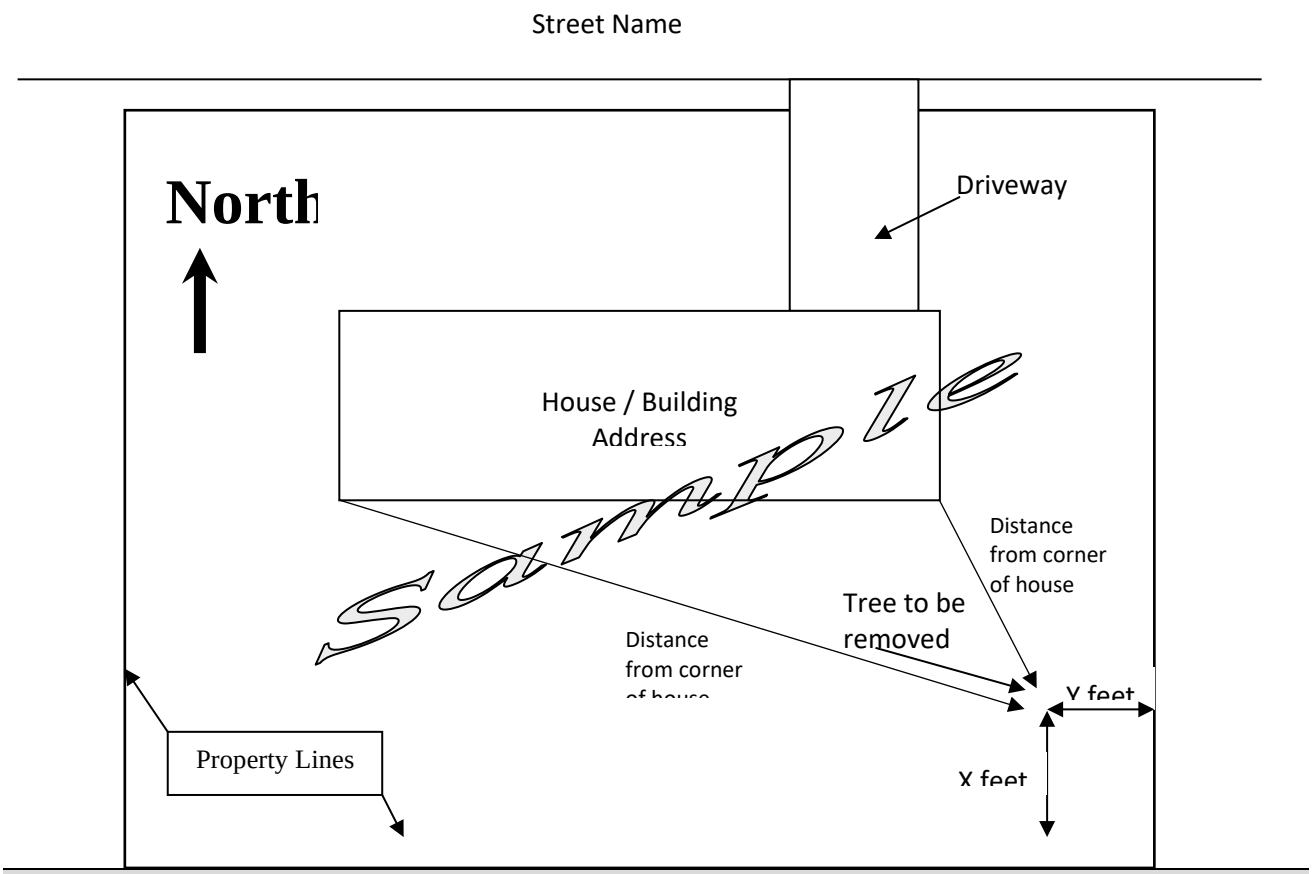
[1] Critical areas include steep slopes, wetlands and buffers, water courses and buffers, and bald eagles nest buffers.

or any other trimming or pruning that is likely to result in the death or significant damage to the tree is not allowed. Trimming of trees in the right of way is not allowed.

REQUIRED INFORMATION:

1. Applicant Name
2. Street Address
3. Tax Parcel Number
4. North Arrow
5. Approximate location and dimensions of existing buildings, driveways
6. Approximate location of trees to be removed (please include distance from at least two property lines and two building corners- see drawing)
7. Approximate location of any critical areas. Refer to page 5 for information on how to determine this.
8. Number each tree, show diameter (inches at 4.5' above ground) and species
9. Locations of proposed replacement trees

INFORMATIONAL ONLY
Applicant needs to provide site plan specific to parcel. This drawing will not be accepted.



HOW DO I MEASURE THE DIAMETER OF A TREE?

Measure the circumference of the tree (the distance all the way around the trunk) at 4.5 feet above the ground and then convert the circumference to diameter. Reminder**:** (Diameter = Circumference ÷ 3.14)

[1] Critical areas include steep slopes, wetlands and buffers, water courses and buffers, and bald eagles nest buffers.

HOW MANY TREES WILL I HAVE TO REPLANT?

When trees are cut, replacement trees will need to be planted. Replacements are determined by the diameter of the trees that are removed.

Tree Replacement Ratios	
Diameter of Removed Tree	**Number of Replacement Trees Required**
Less than 10 inches***** (see below)	1
10 inches up to 24 inches	2
24 inches up to 36 inches	3
More than 36 inches and any exceptional tree(s)	6

****no replacement tree is needed if the tree fits all of the following;***
Less than 10 inches in diameter, not an exceptional tree, and not a replacement tree from another tree permit. *
To ensure optimal planting conditions for tree survival, replacement trees should be planted in the wet season, October 1 – April 1.

Trees should be replaced with primary native species of the Pacific Northwest

Trees replaced need to meet these size requirements:

a. Coniferous trees should be at least 6 feet tall
b. Deciduous trees should have at least a 1.5 inches in diameter at the base

If smaller trees are demonstrably more suited to the species, on site conditions, or neighborhood character the City Arborist may authorize the planting of smaller sized replacement trees.

Planting of shrubs or bushes do not qualify as replacement of trees.

FEE-IN-LIEU

If the City Arborist determines that there is insufficient area to replant trees either on the site or in the adjacent public-right-of-way, the arborist may authorize the payment of a fee-in-lieu.

The fee-in-lieu amount is based upon the expected tree replacement cost, including labor, materials, and maintenance for each replacement tree, and the Council of Tree and Landscape Appraisers Guide for Plant Appraisal.

HOW DO I KNOW IF MY TREE IS LOCATED IN A CRITICAL AREA?

Click here to find out more information regarding if your property has critical areas. Just type in your address in the upper left-hand corner of the map in the address box and you will see a map of your property and the surrounding area. Refer to the map legend for critical areas.

HOW MANY TREES DO I HAVE TO RETAIN?

If you are planning on developing (building or rebuilding) your property in the next five years, a minimum of 30% of the total trees with a diameter of 10" or greater and exceptional trees must be retained over a rolling five year period.

Please note: If tree retention requirements are not met, development of the property may be delayed until compliance with tree retention requirements are met. A tree inventory prepared prior to removing any trees is a helpful way to know where your tree retention is.

WHAT IS A TREE INVENTORY?

A tree inventory is a report compiled by a qualified arborist for your property that provides:

[1] Critical areas include steep slopes, wetlands and buffers, water courses and buffers, and bald eagles nest buffers.

a. Tree Species
b. Size- including diameter and height
c. Crown Width
d. Overall Condition- including health and maintenance needs, overcrowding, possible problems, presence or absence of insects or diseases.
e. Characters of the site such as soil type and condition, root space and safety should also be listed

CHOOSING A QUALIFIED ARBORIST

Hiring an arborist is a decision that should not be taken lightly. ISA certification indicates the individual has passed ISA's extensive examination on all aspects of tree care and maintenance. Hiring a qualified arborist is an investment in your property. Refer to the ISA website for more information. Qualified arborists as defined by MICC 19.16 have relevant education and training in arboriculture or urban forestry, having the International Society of Arboriculture (ISA) Tree Risk Assessment Qualification and at least one (1) of the following credentials:

a. ISA Certified Arborist;
b. ISA Certified Arborist Municipal Specialist;
c. ISA Board Certified Master Arborist;
d. American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
e. Society of American Foresters (SAF) Certified Forester for Forest Management Plans;

WHAT ARE EXCEPTIONAL TREES?

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. They have a diameter of more than 36 inches, or with a diameter that is equal to or greater than the diameter for the species listed in the following Exceptional Tree List.

EXCEPTIONAL TREE LIST

Native Species			
Species	**Diameter**	**Species**	**Diameter**
Oregon Ash	24 inches	Western Hemlock	24 inches
Quaking Aspen	12 inches	Pacific Madrone	6 inches
Paper Birch	20 inches	Big Leaf Maple	30 inches
Cascara	8 inches	Dwarf or Rocky Mountain Maple	6 inches
Western Red Cedar	30 inches	Vine Maple	8 inches
Pacific Crabapple	12 inches	Oregon White or Garry Oak	6 inches
Pacific Dogwood	6 inches	Lodgepole Pine	6 inches
Douglas Fir	30 inches	Shore Pine	12 inches
Grand Fir	24 inches	Western White Pine	24 inches
Black Hawthorn	6 inches	Western Serviceberry	6 inches
Sitka Spruce	6 inches	Pacific Yew	6 inches
Willow (all native species)	8 inches		

[1] Critical areas include steep slopes, wetlands and buffers, water courses and buffers, and bald eagles nest buffers.

Non-Native Species			
Species	**Diameter**	**Species**	**Diameter**
Orchard (Common) Apple	20 inches	English Elm	30 inches
European Ash	22 inches	Gingko	24 inches
Green Ash	30 inches	Common Hawthorn	16 inches
Raywood Ash	24 inches	Washington Hawthorn	9 inches
European Beech	30 inches	European Hornbeam	16 inches
European White Birch	24 inches	Katsura	30 inches
Atlas Cedar	30 inches	Littleleaf Linden	30 inches
Deodor Cedar	30 inches	Honey Locust	20 inches
Incense Cedar	30 inches	Southern Magnolia	16 inches
Flowering Cherry	23 inches	Paperbark Maple	12 inches
Lawson Cypress	30 inches	Japanese Maple	12 inches
Kousa Dogwood	12 inches	Red Maple	25 inches
Eastern Dogwood	12 inches	Sugar Maple	30 inches
American Elm	30 inches	Ponderosa Pine	30 inches
Sycamore Maple	24 inches	Scot's Pine	24 inches
Monkey Puzzle Tree	22 inches	London Plane	30 inches
Mountain-Ash	29 inches	Flowering Plum	21 inches
Pin Oak	30 inches	Costal Redwood	30 inches
Red Oak	30 inches	Giant Sequoia	30 inches
Callery Pear	13 inches	Japanese Snowbell	12 inches
Austrian Black Pine	24 inches	Tulip Tree	30 inches
American Sweetgum	27 inches	Willow (All non-native species)	24 inches

[1] Critical areas include steep slopes, wetlands and buffers, water courses and buffers, and bald eagles nest buffers.