



AMERICAN FOREST  
MANAGEMENT

**ARBORIST REPORT**  
**3453 74<sup>th</sup> Ave SE**  
**Mercer Island, WA**



**October 31<sup>st</sup>, 2019**

**Updated 5/5/2020**

**Updated 1/7/2021**

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Site/Tree Photos – pages 7- 11

Site Plan – attached

Tree Summary Tables - attached

**1/7/2021 - Revisions to Address City Arborist Comments Dated 10/30/2020**

- **Comment 1 - The Latin binomial for tree 5 was determined to be *Abies grandis*, common name is grand fir. The previous version of the Arborist Report did not include a scientific name. In accordance with the City of Mercer Island Exceptional Tree List, this tree is exceptional due to size with an exceptional threshold of 24 inches. This tree is proposed for removal due to a conflict with the proposed improvements on the east side of the proposed residence.**

**If tree 4 and 5 are removed, they shall be replaced in accordance with MICC 19.10.070. Available space for planting replacement trees will likely be available on the southeast portion of the site. Native coniferous species appropriate for the site will provide long-term high-quality ecosystem services for the site. Tree planting should adhere to current ANSI Standards and occur in the fall or early spring.**

- **Comment 2 – Scientific names were added to the *Tree Table* attached to this report.**
- **Comment 4 – The Tree Inventory and Replacement Submittal Information Worksheet is attached to this report.**
- **Comment 5 – In accordance with MICC 19.16.010 Definitions, trees 6 through 23 form a grove and are considered exceptional trees. Justification is required to remove grove trees. No exceptional grove trees are proposed for removal. All disturbance will remain outside of the limits of disturbance as indicated on the site plans. Any disturbance that will take place within the limits of disturbance of or drip line of grove trees should be monitored and assessed by a qualified arborist. All Root Disturbance and Tree Protection Measures included in this report shall be adhered to, to avoid unnecessary damage to retained trees.**

**Trees 14, 18, 22, and 23 will likely have their limits of disturbance encroached by the proposed ADU. Based on the site plan dated 1/7/21, these impacted trees can likely be successfully retained as viable trees if all recommendations, root disturbance, and tree protection measures are adhered to through all phases of development activity. Any incursions into limits of disturbance should be avoided whenever possible.**

**If possible, pneumatic excavation should be carried at the limits of disturbance where proposed improvements encroach within either the drip line or limits of disturbance of retained trees. Air excavation should be monitored and assessed by a qualified arborist.**

- **Comment 13 – Any disturbance within the Critical Root Zone of street trees shall be monitored and assessed by a qualified arborist to avoid unnecessary impacts to long term health and structure.**

## ***1. Introduction***

American Forest Management, Inc. was contacted by Aaron Spell and asked to compile an arborist report for a parcel located in the City of Mercer Island, WA.

The proposed re-development encompasses the property at 3453 74<sup>th</sup> Ave SE. Our assignment is to prepare a written report on present tree conditions and the potential impacts to existing trees related to development of the 21,618 square foot property, Parcel #130030-1965. There is one single-family home located on site.

This report encompasses all of the criteria set forth under the City of Mercer Island's tree regulations (Chapter 19.10 of the Mercer Island City Code).

Date of Field Examination: **October 28<sup>th</sup>, 2019 & November 5<sup>th</sup>, 2018.**

## **2. Description**

The City of Mercer Island defines a 'large tree' as any tree with a diameter of 10 inches or more, or any tree that meets the definition of an exceptional tree. Twenty large trees were located on the property. Three trees under 10 inches were assessed.

There were 19 Exceptional Trees located on the property. The City of Mercer Island may prioritize the retention of Exceptional Trees. The removal of Exceptional Trees over 24 inches DBH (Diameter at 4.5 feet above grade) may be limited by the City.

The City of Mercer Island defines a grove as a group of 8 or more trees 10 inches or more in diameter that form a continuous canopy. Trees 6 through 23 form a grove. In accordance with MICC 19.16.010., trees that form part of a grove are considered Exceptional Trees.

Based on the proposed site plan, trees 3, 4, and 5 are conflicting with proposed improvements. Trees 3 and 5 are Exceptional Trees.

There are 20 significant trees located on adjacent parcels that have canopies overhanging the subject property. These trees shall be protected throughout development activity.

Each subject tree has been identified with a numbered aluminum tag attached to its lower trunk. The tag number corresponds with the attached tree condition summary table and attached site survey.

The recommended Limits of Disturbance (LOD) measurement can be found on the tree summary table and delineated on the site plan. The LOD measurements are based on species, size, age, condition, drip line or crown spread and prior improvements.

## **3. Methodology**

The subject tree's diameters were measured by tape. Their total overall height was measured using a digital clinometer, and they were visually examined for defects and vigor. The tree assessment procedure involves the examination of many factors:

- The crown of each tree is examined for current vigor. This is comprised of inspecting the crown (foliage, buds and branches) for color, density, form, and annual shoot growth, limb dieback and disease. The percentage of live crown is estimated for coniferous species only and scored appropriately.
- The bole or main stem of the tree is inspected for decay, which includes cavities, wounds, fruiting bodies of decay (conks or mushrooms), seams, insects, bleeding, callus development, broken or dead tops, structural defects and unnatural leans. Structural defects include crooks, forks with V-shaped crotches, multiple attachments, and excessive sweep.
- The root collar and roots are inspected for the presence of decay, insects and/or damage, as well as if they have been injured, undermined or exposed, or original grade has been altered.

The four condition categories are described below:

Excellent – free of structural defects, no disease or pest problems, no root issues, excellent structure/form with uniform crown or canopy, foliage of normal color and density, above average vigor, it will be wind firm if isolated, suitable for its location.

Good – free of significant structural defects, no disease concerns, minor pest issues, no significant root issues, good structure/form with uniform crown or canopy, foliage of normal color and density, average or normal vigor, will be wind firm if isolated or left as part of a grouping or grove of trees, suitable for its location.

Fair – minor to moderate structural defects not expected to contribute to a failure in near future, no disease concerns, moderate pest issues, no significant root issues, asymmetric or unbalanced crown or canopy, average or normal vigor, foliage of normal color, moderate foliage density, will be wind firm if left as part of a grouping or grove of trees, cannot be isolated, suitable for its location.

Poor – major structural defects expected to cause fail in near future, disease or significant pest concerns, decline due to old age, significant root issues, asymmetric or unbalanced crown or canopy, sparse or abnormally small foliage, poor vigor, not suitable for its location.

The attached Tree Summary Table provides specific information on tree sizes and drip-line measurements.

#### **4. Observations / Discussion**

Twenty-three trees were tagged and assessed on site. Nine trees were assessed to be in good condition and 13 trees were assessed to be in fair condition. The tree species included Douglas-fir, bigleaf maple, red alder, flowering dogwood, Pacific dogwood, and Japanese white pine.

Per MICC 19.16.010, trees number 6 through 23 are considered a grove as all of their canopies overlap. Trees forming part of a grove are considered exceptional unless they meet the definition of a hazardous tree. Grove trees may be prioritized for retention by the City. The proposed improvements will likely encroach within approximately 12 to 15 feet of trees 14, 15, 18, 22, and 23. When excavating in the area near these trees strict adherence to root disturbance guidelines is recommended to avoid unnecessary disturbance to their root systems. Whenever possible, consider alternative methods to avoid impacts to tree root systems.

Trees 4 and 5 conflict with proposed improvements. Tree 5 is in good health condition and is exceptional due to size per MICC 19.16.010 Exceptional Tree Table. Exceptional trees may be prioritized for retention by the City. Removal of this tree will require permission from the City.

Neighboring trees 104 and 106 located on the parcel west of the subject property should be protected during the construction of the proposed driveway on the west side of the subject property.

According to the King County iMap interactive mapping tool the subject property is located in an Erosion Hazard Environmentally Sensitive Area.

See the attached Tree Table for specifics on each tree.

#### **5. Tree Protection Measures**

The following general guidelines are recommended to ensure that the designated areas set aside for the preserved trees are protected and construction impacts are kept to a minimum. Tree protection should adhere to best management practices for tree and soil protection during development activity.

1. Tree protection fencing shall be erected around retained trees and positioned as shown on the attached map prior to moving any heavy equipment on site. Doing this will set clearing limits and avoid compaction of soils within root zones of retained trees.
2. Any existing improvements to be removed within the drip lines or tree protection zones shall be removed by hand or utilizing a tracked mini excavator.
3. Excavation limits should be laid out in paint on the ground to avoid over excavating.
4. Excavations within the drip lines shall be monitored by a qualified arborist so necessary precautions can be taken to decrease impacts to tree parts. A qualified arborist shall monitor excavations when work is required and allowed within the “limits of disturbance”.

5. To establish sub grade for foundations, curbs and pavement sections near the trees, soil should be removed parallel to the roots and not at 90-degree angles to avoid breaking and tearing roots that lead back to the trunk within the drip line. Any roots damaged during these excavations should be exposed to sound tissue and cut cleanly with a saw.

6. Areas excavated within the drip line of retained trees should be thoroughly irrigated daily during dry periods.

7. Preparations for final landscaping shall be accomplished by hand within the drip lines of retained trees. Large equipment shall be kept outside of the tree protection zones at all times. Simply finish landscape within 10' of retained trees with a 2" to 4" layer of organic mulch.

### **Root Disturbance Guidelines**

When excavating must occur within the drip line or limit of disturbance, a hand shovel should be used when roots larger than 1-inch are encountered. Only use mechanical or power tools for digging where encountering roots is not anticipated. Mechanical excavation equipment could rip and shatter roots causing unnecessary damage. To the extent possible do not cut roots over approximately 2 to 3 inches. Cutting roots greater than 2 to 3 inches in diameter can potentially increase the likelihood of tree failure. If root cuts are required, roots should be exposed by hand then cleanly cut with a sharp tool to promote occlusion of the wound and encourage re-growth. Any root cuts 3 inches and greater should be monitored and assessed by the project arborist.

If possible, air excavation should be carried out at limits of excavation to assess the impact to the root system of a tree. Air excavation will allow any roots encountered to be properly cut and assessed as they are discovered.

### **6. Recommendations**

- Obtain all necessary permits from the City prior to commencing development activity on site.
- Comply with all applicable federal and state laws, rules and regulations per 19.10.130.
- Adhere to root disturbance and tree protection guidelines whenever excavating in the area of retained trees.
- Impacted trees should be provided supplemental irrigation during the dry summer months to avoid drought stress.
- Trees 4 and 5 are proposed for removal. Tree 5 is an exceptional tree. Exceptional trees may be prioritized for retention by the City.
- Impacted site trees and neighboring trees should be assessed for health and structure once development activity has been completed.

### **7. Tree Removal and Retention Per MICC 19.10.060**

#### **19.10.060 Tree removal – Associated with a development proposal. Revised 8/18**

##### **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](#).

3. Retention of [Exceptional Trees](#). [Development proposals](#) specified under subsection (A)(1) of this section shall retain [exceptional trees](#) with a [diameter](#) of 24 inches or more. [Exceptional trees](#) with a [diameter](#) of 24 inches or more that are retained shall be credited towards compliance with the retention requirements of subsection (A)(2) of this section. Removal of [exceptional trees](#) with a [diameter](#) of 24 inches or more, shall be limited to the following circumstances:

a. Retention of an exceptional tree(s) with a [diameter](#) of 24 inches or more will result in an unavoidable hazardous situation; or

b. Retention of an exceptional tree(s) with a [diameter](#) of 24 inches or more will limit the constructable [gross floor area](#) to less than 85 percent of the maximum [gross floor area](#) allowed under Chapter [19.02](#) MICC; or,

c. Retention of an exceptional tree(s) with a [diameter](#) of 24 inches or more will prevent creation of a residential [lot](#) through a [subdivision](#) or [short subdivision](#) that is otherwise allowed by this title.

4. Calculation of Rolling Five-Year Period. For the purposes of this section, the rolling five-year period begins five years prior to the date of application for a [development](#) approval that is subject to [tree](#) retention.

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5. Compliance Required. [Development proposals](#) on [lots](#) that have removed more than 70 percent of [large trees](#) within the rolling five-year period, such that the 30 percent [tree](#) retention requirement under subsection (A)(2) of this section cannot be met, shall not receive approval unless and until compliance has been achieved. For example, a [lot](#) that has removed all of the [trees](#) in year “one” may not receive a preliminary [subdivision](#) approval in year “four.” However, the preliminary [subdivision](#) approval may be granted in year “six,” such that the rolling five-year period does not include the [tree](#) removal in year “one.”

*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 represent my opinion based on the observations made.*

*Nearly all trees in any condition standing within reach of improvements or human use areas represent hazards that could lead to damage or injury.*

Please call if you have any questions or I can be of further assistance.

Sincerely,

A handwritten signature in blue ink that reads "Michael Tomco".

Michael Tomco  
ISA Certified Arborist #PN-8432A  
Tree Risk Assessment Qualified (TRAQ)



## Photographs

Photo 1. Facing north, showing the west property line and neighboring trees. A driveway is proposed for this area.



Photo 2. Facing north, showing grove trees located north of the residence.





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Photo 3. Facing east, showing tree number 1 located south of the residence and adjacent to the property line.



Photo 4. Facing north, showing the area east of the residence.





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Photo 5. Facing west, showing the grove trees number 9 through 14 located north of the residence.



Photo 6. Showing the overlapping canopies of the grove trees.





Photo 7. Facing west, showing grove tree number 23 located north of the residence.



Photo 8. Taken on 1/7/2021. Facing south looking at the base of tree 5 approximately 10 feet east of the existing residence.





Photo 9. Taken 1/7/2021. Facing north looking at the canopy of tree 5.





**Tree Summary Table**

For: **3453 74th Ave SE-Property Trees**  
City of Mercer Island

**American Forest Management, Inc**

Date: 11/5/2018  
Inspector: Layton  
Date: 10/28/2019 Update 1/7/2021  
Inspector: Tomco

Tree/ Tag #	Common Name	Scientific Name	Exceptional	DBH (inches)	Height (feet)	Drip-Line / Limits of Disturbance (feet)				Condition	Proposal	Comments
						N	S	E	W			
1	Japanese white pine	<i>Pinus parviflora</i>	no	8	28	10	10	11	12	good	Retain	No concerns.
2	red alder	<i>Alnus rubra</i>	no	15	63	13	14	16	7	fair	Retain	Leans sw, declining top.
3	Pacific dogwood	<i>Cornus nuttallii</i>	yes	9	37	14	8	12	12/10	fair	Retain	Exceptional due to size. Several small cavities, mod anthracnose infection. Exceptional threshold 6".
4	flowering dogwood	<i>Cornus florida</i>	no	5,6 (8)	31	7	6	5	12	fair	Remove	Leans west, pruned in past.
5	grand fir	<i>Abies grandis</i>	yes	27	92	10/14	10/14	10/6	10/14	good	Remove	Exceptional due to size. No concerns. Exceptional threshold 24".
6	bigleaf maple	<i>Acer macrophyllum</i>	no	24	83	0	24	4	16	poor	Retain	Extensive trunk rot, kretchmaria, major top dieback. Grove tree. Part of grove but poor health.
7	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	15	78	6	10	4	12	fair	Retain	Natural lean west, suppressed, minor decay column. Grove tree.
8	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	32	116	14	14	16	12	good	Retain	Exceptional due to size. Good form, natural lean east. Grove tree.
9	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	33	140	12	15	14	10	good	Retain	Exceptional due to size. 60% lcr. Grove tree.
10	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	12	33	7	8	10	6	fair	Retain	Old broken top, suppressed, moderate decay column. Grove tree.
11	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	36	144	na	11	13	10	good	Retain	Exceptional due to size. 70% lcr. Grove tree.
12	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	20	86	6	9	11	11	fair	Retain	Old broken top. Grove tree.
13	Pacific dogwood	<i>Cornus nuttallii</i>	yes	11	53	10	19	14	12	fair	Retain	Exceptional due to size. Large canker on east side, longevity in question. Grove tree.
14	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	37	127	12	15/12	16	14/13	good	Retain	Exceptional due to size. 70% lcr. Grove tree.
15	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	28	126	12	8/12	12	8	good	Retain	Natural lean north. Grove tree.
16	Pacific dogwood	<i>Cornus nuttallii</i>	yes	11	48	12	16/10	14	16	fair	Retain	Exceptional due to size. suppressed by Douglas fir. Grove tree.
17	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	32	128	12	16/14	12	12	good	Retain	Exceptional due to size. 70% lcr. Grove tree.
18	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	27	112	10	11/12	10	10	fair	Retain	60% lcr, old broken top. Grove tree.
19	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	32	118	14	10/14	12	12	good	Retain	Exceptional due to size. 60% lcr. Grove tree.
20	bigleaf maple	<i>Acer macrophyllum</i>	yes	12	40	20	0	12	16	fair-poor	Retain	Suppressed, old broken top, asymm crown to north. Grove tree.
21	bigleaf maple	<i>Acer macrophyllum</i>	yes	19	88	14	18	13	15	fair	Retain	Lots of dead cambium on ne side, suspect xylella. Grove tree.
22	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	22	97	12	8	10	10	fair	Retain	Old broken top. Grove tree.
23	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	24	90	8	13/12	14	10	fair	Retain	Old broken top. Grove tree.

Parcel Trees - Drip-Line and Limits of Disturbance measurements from face of trunk

Trees on neighboring properties - Drip-Line and Limits of Disturbance measurements from property line

Calculated DBH: the DBH in parenthesis is the square root of the sum of the dbh for each individual stem squared (example with 3 stems: dbh = square root [(stem1)<sup>2</sup> +(stem2)<sup>2</sup> +(stem3)<sup>2</sup> ]).





**Tree Summary Table**

For: **3453 74th Ave SE-Neighboring Trees**  
City of Mercer Island

**American Forest Management, Inc**

Date: 11/5/2018  
Inspector: Layton

Tree/ Tag #	Common Name	Scientific Name	Exceptional	DBH (inches)	Height (feet)	Drip-Line / Limits of Disturbance (feet)				Condition	Proposal	Comments
						N	S	E	W			
101	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	12	60		0/10			fair	Protect	suppressed, cannot isolate
102	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	19	106			4/10		fair	Protect	shhweinitizi conk 2' from root crown
103	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	30	125			4/5		good	Protect	no concerns
104	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	23	98			4/6		good	Protect	no concerns
105	Douglas fir	<i>Pseudotsuga menziesii</i>	no	10	48			4/4		fair	Protect	old broken top, regrown
106	Douglas fir	<i>Pseudotsuga menziesii</i>	no	20	96			2/2		good	Protect	approx 8' off pl
107	bigleaf maple	<i>Acer macrophyllum</i>	yes	21,23,23 (39)	95	16	na	22	30	fair	Protect	approx 8' off driveway
108	Lawson cypress	<i>Chamaecyparis lawsoniana</i>	no	8	35	0/0				good	Protect	
109	Lawson cypress	<i>Chamaecyparis lawsoniana</i>	no	16	50	0/2				fair	Protect	lean
110	Lawson cypress	<i>Chamaecyparis lawsoniana</i>	no	16	52	2/4				good	Protect	
111	Lawson cypress	<i>Chamaecyparis lawsoniana</i>	no	10	42	2/2				good	Protect	
112	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	22	86		19		17/16	good	Protect	natural lean southwest
113	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	24	90				12/14	fair	Protect	old broken top
114	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	21	62				19/14	fair	Protect	leans southwest, mod decay column
115	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	38	145				15/16	good	Protect	
116	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	11	67				6/8	fair	Protect	suppressed
117	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	28	130				10/14	good	Protect	good taper
118	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	35	132				10/18	good	Protect	
119	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	24	113				14/14	good	Protect	
120	Douglas fir	<i>Pseudotsuga menziesii</i>	yes	36	135		14/16			good	Protect	

Trees on neighboring properties - Drip-Line and Limits of Disturbance measurements from property line, except for #112>#119, face of trunk  
 Calculated DBH: the DBH in parenthesis is the square root of the sum of the dbh for each individual stem squared (example with 3 stems: dbh = square root [(stem1)2 +(stem2)2 +(stem3)2 ]).

NE 1/4, SW 1/4, SEC. 12, TWP. 24 N., RGE. E., W.M.

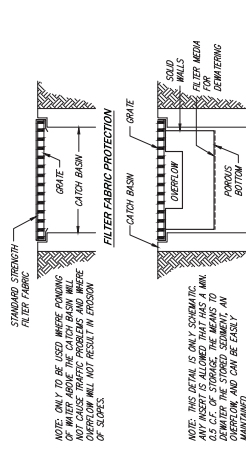
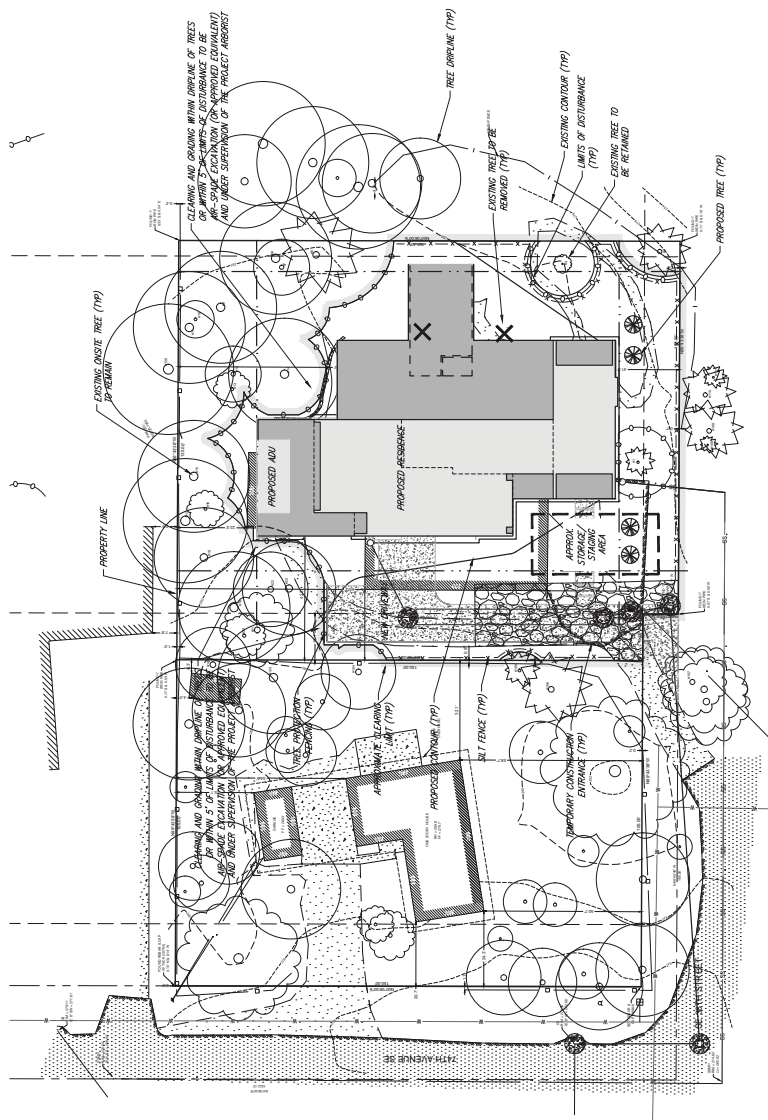
DATE	SEE STAMP DATE
DESIGNED	FRANK R. BANNITT
DRAWN	MARY MOORE
APPROVED	MOHAMED A. MOHAMED, P.E.
PROJECT MANAGER	JOSHUA BEARD



12100 NE 195th St, Suite 300, Bonita, Washington 98011 425.885.7877  
**CORE DESIGN**  
 CIVIL ENGINEERING  
 LANDSCAPE ARCHITECTURE  
 SURVEYING

**TESC PLAN**  
**3453 74TH AVE SE**  
**JIMMY & SHANNON FOO**  
 2020 29TH AVE W  
 SEATTLE, WA 98199

SHEET	6	PROJECT NUMBER	20034
DATE	8/11		

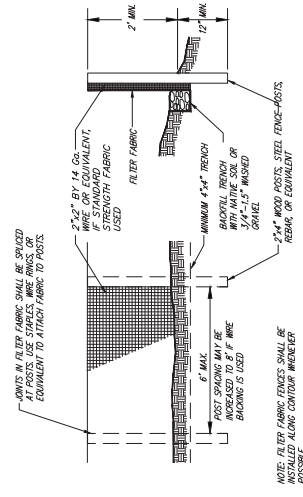


**STANDARD STRENGTH FILTER FABRIC PROTECTION**  
 NOTE: ONLY TO BE USED WHERE PONDING IS NOT EXPECTED. THIS TYPE OF PROTECTION MAY CAUSE TRAFFIC PROBLEMS AND THESE OVERFLOW WILL NOT RESULT IN EROSION.

**CATCH BASIN INSERT**  
 NOTE: THIS DETAIL IS ONLY SCHEMATIC. ANY INSERT IS ALLOWED THAT HAS A MAXIMUM OPENING OF 1/4" TO 1/2" TO ALLOW WATER TO DEWATER THE STORED SEDIMENT. AN OVERFLOW, AND CAN BE EASILY MAINTAINED.

**MAINTENANCE STANDARDS**  
 1. THE FILTER FABRIC PROTECTION SHALL BE REMOVED AND STORED IN A MANNER THAT ALL SEDIMENT MUST BE EXPOSED AS FILL ON-SITE OR WAILED OFF-SITE.  
 2. ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN THE SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE. THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT LEAST MONTHLY.  
 3. REGULAR MAINTENANCE IS CRITICAL FOR BOTH FORMS OF CATCH BASIN PROTECTION. THE FILTER MEDIA SHALL BE MAINTAINED AT ALL TIMES AND SHALL BE MAINTAINED PROPERLY.

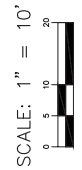
**NO SCALE**  
**FILTER FABRIC PROTECTION FOR CB'S**



**NO SCALE**  
**FILTER FABRIC FENCE DETAIL**

**LEGEND**

	UTILITY LINES (SEE NOTES)
	INLET FILTER
	CONSTRUCTION ACCESS
	CLEARING LIMITS
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EX. TREE TO BE REMOVED



**UNDERGROUND LOCATOR SERVICE**  
 CALL BEFORE YOU DIG!  
 811

**PERMIT #XXXX-XXX**

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# CITY OF MERCER ISLAND

## DEVELOPMENT SERVICES GROUP

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

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## TREE INVENTORY & REPLACEMENT SUBMITTAL INFORMATION

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### EXCEPTIONAL TREES

*Exceptional Trees*- means a tree or group of trees that because of its unique historical, ecological or aesthetic value constitutes an important community resource. 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 shown in MICC 19.16 under Tree, Exceptional.

List the total number of trees for each category and the tree identification numbers from the arborist report.

Number of trees 36" or greater \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Number of trees 24" or greater (including 36" or greater) \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Number of trees from Exceptional Tree Table (MICC 19.16) \_\_\_\_\_

List tree numbers: \_\_\_\_\_

### LARGE REGULATED TREES

*Large Regulated Trees*- means any tree with a diameter of 10 inches or more, and any tree that meets the definition of an Exceptional Tree.

Number of Large Regulated Trees on site \_\_\_\_\_ (A)

List tree numbers: \_\_\_\_\_

Number of Large Regulated Trees on site proposed for removal \_\_\_\_\_ (B)

List tree numbers: \_\_\_\_\_

Percentage of trees to be retained  $((A-B)/Ax100)$  note: must be at least 30% \_\_\_\_\_

85 %

### RIGHT OF WAY TREES

*Right of Way Trees*- means a tree that is located in the street right of way adjacent to the project property.

Number of Large Regulated Trees in right of way \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Number of Large Regulated Trees in right of way proposed for removal \_\_\_\_\_

List tree numbers: \_\_\_\_\_

Reason for removal: \_\_\_\_\_

**TREE REPLACEMENT**

Tree replacement- removed trees must be replaced based on the ratio in the table below. Replacement trees shall be conifers at least six feet tall and or deciduous at least one and one-half inches in diameter at base.

Diameter of Removed Tree (measured 4.5' above ground)	Tree replacement Ratio	Number of Trees Proposed for Removal	Number of Tree Required for Replacement Based on Size/Type
Less than 10"	1		
10" up to 24"	2		
Greater than 24" up to 36"	3		
Greater than 36" and any Exceptional Tree	6		
<b>TOTAL TREE REPLACEMENTS</b>			