

# Arborist Report

Significant Tree Inventory - November 9, 2022



**Prepared For:**

**LNL Builds**

Parcel ID Numbers  
5315100455 & 5315100458  
74th Ave SE  
Mercer Island, WA

**Prepared By:**

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## Notice of Disclaimer

*Assessment data provided by Davey Resource Group is based on visual recording at the time of inspection. Visual records do not include testing or analysis and do not include aerial or subterranean inspection unless indicated. Davey Resource Group is not responsible for discovery or identification of hidden or otherwise non-observable risks. Records may not remain accurate after inspection due to variable deterioration of surveyed material. Risk ratings are based on observable defects and mitigation recommendations do not reduce potential liability to the owner. Davey Resource Group provides no warranty with respect to the fitness of the trees for any use or purpose whatsoever.*

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# Introduction

## Background

Davey Resource Group (DRG) was contracted by LNL Buildsl to inspect and provide an arborist report and tree retention plan for Parcels 5315100455 & 5315100458 on 74th Avenue Southeast in Mercer Island, Washington. The client intends to develop the property. **Report was updated on November 9, 2022 to address corrections from the City of Mercer Island and on April 27, 2023.**

Using a pen tablet computer, the arborist visited each tree on the site which was visually assessed, and the required tree data was collected within a GIS database. Following data collection, specific tree preservation plan elements were calculated that identified each tree's dripline and Limits Of Disturbance (LOD) to better ensure survivability during the planned development. The following details are provided in alignment with the information required by the City of Mercer Island Municipal Code.

- Description of how the arborist meets the threshold requirements for Qualified Arborist.
- A complete description of each tree's diameter, species, limits of allowable disturbance, health, condition, and viability.
- A description of the method(s) used to determine the limits of allowable disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees).
- Any special instructions specifically outlining any work proposed within the limits of disturbance protection areas (i.e. hand-digging, air space, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare).
- For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects, unavoidable isolation, wind firmness, unsuitability species, etc. If there is no reasonable alternative action (pruning, cabling, etc.) possible, replacement recommendations must be given.
- Describe the impact of necessary tree removal on the remaining trees, including those in a grove or on adjacent properties.
- Describe timing and installation of tree protection measures. Such measures must include fencing and be in accordance with the tree protection standards as outlined in MICC 19.10.
- The suggested location and species of replacement trees to be used when required. The report shall include planting and maintenance specifications to ensure long term survival.

## Limits of the Assignment

There are many factors that can limit specific and accurate data when performing evaluations of trees, their conditions, and values. The determinations and recommendations presented here are based on current data and conditions that existed at the time of the evaluation and cannot be a predictor of the ultimate outcomes for the trees. A visual inspection was used to develop the findings, conclusions, and recommendations found in this report. Values were assigned to grade the attributes of the trees, including structure and canopy health, and to obtain an overall condition rating. No physical inspection of the upper canopy, sounding, root crown excavation, and resistograph or other technologies were used in the evaluation of the trees.

# Methods

Data was collected by Todd Beals (NE-6913A), an ISA Certified Arborist, on December 15, 2021. A visual inspection was used to develop the findings, conclusions, and recommendations found in this report. No physical inspection of the upper canopy, sounding, root crown excavation, and resistograph or other technologies were used in the evaluation of the trees. The results will be used to determine the Tree Protection Zone (TPZ) and any other protection measures required during construction. Location and dripline of all trees ten (10) inches or greater in diameter at breast height (4.5 ft. above grade) were inspected.

The following attributes were collected for each site:

**Tree Number:** Tree ID number was assigned and a numbered aluminum tag was affixed to the tree.

**Species:** Trees were identified by genus and species, cultivar if evident, and by common name.

**Diameter at Breast Height (DBH):** Trunk diameter was recorded to the nearest inch at 4.5 feet (standard height) above grade except where noted. When limbs or deformities occurred at standard height, measurement was taken below 4.5 ft. The DBH of multi-trunk trees was determined by taking the square root of the sum of the DBH for each individual stem squared.

**Height:** Tree Height estimated to the nearest <10ft.

**Avg. Crown Radius:** Average dripline distance was measured.

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

**Exceptional Trees:** 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.

**Condition:** Condition ratings were based on but not limited to:(1) the condition and environment of the tree's root crown; (2) the condition of the trunk, including decay, injury, callusing, or presence of fungus sporophore; (3) the condition of the limbs, including the strength of crotches, amount of deadwood, hollow areas, and whether there was excessive weight borne by them; (4) the condition and growth rate history of the twigs, including pest damage and diseases; (5) the leaf appearance, including abnormal size and density as well as pest and disease damage.

Using an average of the above factors together with the arborist's best judgment, the general condition of each tree was recorded in one of the following categories adapted from the rating system established by the International Society of Arboriculture and 10th Edition of the Council of Tree & Landscape Appraisers (CTLA) *Guide for Plant Appraisal*<sup>1</sup> :

- **Excellent (81%-100%):** High vigor and near-perfect health with little or no twig dieback, discoloration, or defoliation. Nearly ideal and free of structural defects. Nearly ideal form for the species and generally symmetrical.

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<sup>1</sup> Council of Tree and Landscape Appraisers. (2019). *Guide for Plant Appraisal, 10th Edition, Second Printing*. Atlanta, GA: International Society of Arboriculture.

- **Good (61%-80%):** Vigor is normal for the species and has no significant damage due to disease or pests. Twig dieback, discoloration, or defoliation is minor. Well-developed structure with minor defects that can be corrected easily. Minor asymmetries/deviations from species norm. Function and aesthetics are not compromised.
- **Fair (41%-60%):** Reduced vigor. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Twig dieback, defoliation, discoloration, and/or dead branches may comprise up to 50% of the canopy. A single structural defect of a significant nature or multiple moderate defects. Structural defects are not practical to correct or would require multiple treatments over several years. Major asymmetries/deviations from species norm. Function and aesthetics are compromised.
- **Poor (21%-40%):** Unhealthy and declining in appearance. Poor vigor and low foliage density and poor foliage color are present. Potentially fatal pest infestation. Extensive twig or branch dieback. A single serious structural defect or multiple significant defects. Observed structural problems cannot be corrected. Failure may occur at any time. Largely asymmetrical or abnormal form. Form detracts from aesthetics or intended use to a significant degree.
- **Very Poor (6%-20%):** Poor vigor and appears to be dying. Little live foliage. Single or multiple severe structural defects. Visually unappealing and provides little or no function in the landscape.
- **Dead (0%-5%)**

**Tree Preservation Priority:** In order to capture the priority for preservation of an individual tree as it relates to planning for development projects, DRG utilized a rating scale of one to four, with one being the highest priority for protection and four being of least concern. The condition rating of an individual tree is an important component of the priority rating, but several other variables are factored in: species desirability, species longevity, species sensitivity to root loss and construction impacts, uniqueness, and aesthetics both of the tree itself and its relation to the site. It is important to note that these are qualitative ratings based solely on the site, individual tree, and existing conditions at the time of the inventory. Proposed development and construction plans are not considered when assigning ratings. The following criteria constituted the basis of tree placement in a particular category of priority:

- **Priority 1:** Highest priority for protection (i.e. particularly good condition, unique tree and/or should be protected at all reasonable cost).
- **Priority 2:** Good or fair condition tree well worth protecting though not uniquely valuable.
- **Priority 3:** Poor condition average tree that will not be missed if it were gone, not worth any special protection measures.
- **Priority 4:** Trees that should be removed under most or any circumstances (i.e., invasive or undesirable species, poor condition or critical trees, particularly high-risk situations, etc.).

# Observations

A total of fifty-nine (59) trees were inspected as part of this inventory. Three (3) trees were on neighboring properties which had canopies extending over the subject parcels. There were forty-five (45) trees on Parcel Identification Number (PIN) 5315100455 and eleven (11) trees on Parcel ID Number (PIN) 531500458.

## **PIN 5315100455**

The majority of the trees on this parcel were in fair condition (21 trees). The remaining trees were in good (2 trees), poor (9 trees), and very poor (8 trees) condition. There were five (5) trees that were dead or dying.

## **PIN 5315100458**

The majority of the trees on this parcel were in fair condition (7 trees). The remaining trees were in good (1 tree) and very poor (2 trees) condition. There was one (1) dead tree.

**Appendix B has a complete list of the trees, their condition, and justification for the condition ratings.**

**Table 1. Tree condition on the individual parcels.**

| PIN          | Good     | Fair      | Poor      | Very Poor | Dead     | Dying    | TOTAL     |
|--------------|----------|-----------|-----------|-----------|----------|----------|-----------|
| 5315100455   | 2        | 21        | 9         | 8         | 3        | 2        | 45        |
| 5315100457   |          | 1         |           |           |          |          | 1         |
| 5315100458   | 1        | 7         | 2         |           | 1        |          | 11        |
| 5315100460   |          | 1         |           |           |          |          | 1         |
| 5315100477   |          | 1         |           |           |          |          | 1         |
| <b>TOTAL</b> | <b>3</b> | <b>30</b> | <b>10</b> | <b>8</b>  | <b>4</b> | <b>2</b> | <b>59</b> |

# Analysis & Recommendations

As with most tree preservation planning, a critical element is minimizing root disturbance. When evaluating tree root disturbance during construction there are two considerations; the removal of absorption roots and removal of anchoring roots. Removal (or compaction in the area) of the absorption roots can cause immediate water stress and a significant decline in tree health. The ability of a tree to survive the loss of absorption roots is dependent on its tolerance of drought, tree health, and the ability to form new roots quickly. Removal of the larger anchoring roots can lead to structural instability. Trees that suffer substantial root loss or damage are seldom good candidates for preservation.

The Critical Root Zone (CRZ) is considered the ideal preservation area of the root zone of a tree. It is measured as one (1) foot of radius for every inch of trunk diameter measured at 4.5 feet from grade. CRZ measurements are calculated from DBH and may not be an accurate representation of the actual dimensions of the root zone of the trees in the field. Many factors can limit root growth and expansion such as degree of slope, present hardscape or heavily compacted areas, and/or tree health. Final selections for tree preservation are largely determined by the percentage of Critical Root Zone impacted and calculated using a commonly accepted method established by Dr. Kim Coder in Construction Damage Assessments: Trees and Sites<sup>2</sup>.

Tree Preservation Priority was determined for each tree based on multiple factors and independent of any development plans. Trees that were determined to be the best candidates for preservation were categorized as Priority 1 and those that were not ideal for preservation or should be promptly removed were categorized as Priority 4. **Trees categorized as Priority 4 are not considered large or exceptional despite DBH due to their condition.**

**Table 2. Preservation Priority on the individual parcels.**

| Parcel #     | Priority 1 | Priority 2 | Priority 3 | Priority 4 | TOTAL     |
|--------------|------------|------------|------------|------------|-----------|
| 5315100455   |            | 17         | 11         | 17         | 45        |
| 5315100457   | 1          |            |            |            | 1         |
| 5315100458   | 1          | 7          | 2          | 1          | 11        |
| 5315100460   |            | 1          |            |            | 1         |
| 5315100477   | 1          |            |            |            | 1         |
| <b>TOTAL</b> | <b>3</b>   | <b>25</b>  | <b>12</b>  | <b>17</b>  | <b>59</b> |

Mercer Island tree regulations during development (MICC 19.00.005) allow removal of trees associated with property development when done in a way that minimizes tree removal and retains at least 30% of the regulated trees on site. Large and Exceptional Trees are prioritized for retention. Trees that were determined to be Priority 4 are not considered large or exceptional and are recommended for removal based on condition. A minimum of 30% of large trees must be retained over a rolling 5-year period. Refer to MICC 19.10.050(A) 4 & 5 for more information about the calculation and application of the rolling

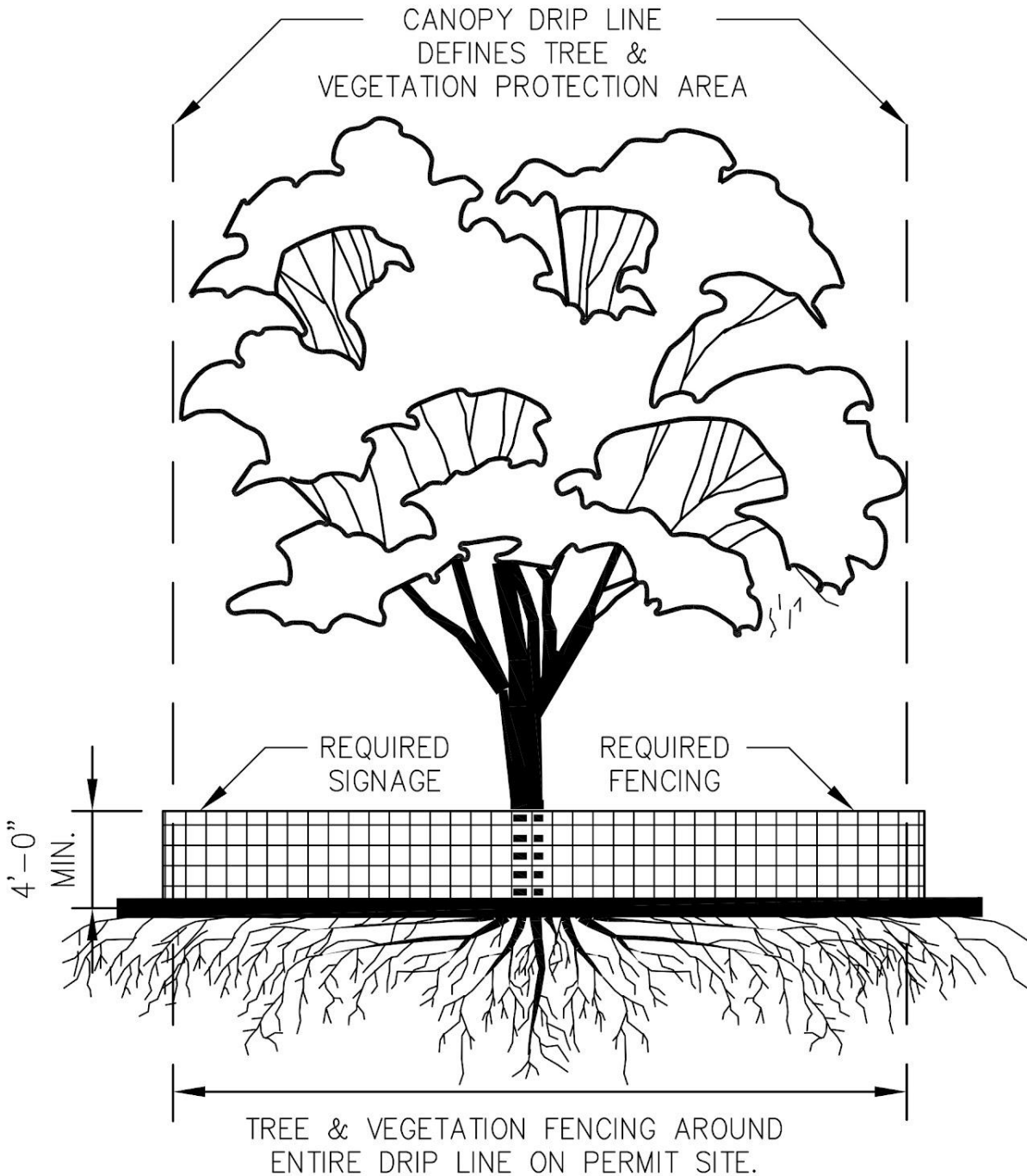
<sup>2</sup> Dr. Kim Coder, University of Georgia June 1996

## Tree Protection Zone & Timing

To ensure the long-term viability of trees and stands identified for protection, construction activities shall comply with the minimum required tree protection through an established Tree Protection Zone (TPZ) for those trees determined to remain on the site.

- TPZ fencing will be installed outside the dripline, at a minimum, of all retained trees. It is recommended that TPZ fencing be installed to encompass as much of the tree's root zone as is allowable by design plans.
- Preventative measures are recommended in addition to the installation of tree protection barriers for retained trees including mulching over the drip line, supplemental fertilization for stressed trees, supplemental irrigation as necessary, soil amendments and soil aeration, and pruning to remove deadwood or create clearance on trees to be protected.
- Mulch the root zones of all significant trees to be retained during construction with 3" of organic mulch or arborist wood chips to help maintain moisture, avoid soil compaction, and avoid runoff.
- Install tree protection fencing for all remaining significant trees on the site and all those trees with canopies that extend onto the subject property.
- TPZ fencing will follow the edge of building/road/paved paths where necessary and are not required to extend to the dripline where impervious surfaces are determined to be the limiting factor for root development (fence following existing curb does not trigger 'impact' status). Tree protection fencing may be installed at the edge of the impermeable or paved surfaces for those trees whose driplines extend over the edge.
- TPZ fencing shall be a minimum of 4 feet high, constructed of chain link or polyethylene laminar safety fencing or similar material.
- "Tree Protection Area - Keep Out" or similar signs are required to accompany the TPZ fencing at regular intervals and include the contact information of the consulting arborist or entity responsible for enforcing tree protection standards.
- TPZs shall be constructed in such a fashion as to not be easily moved or dismantled.
- TPZs shall remain in place for the entirety of the project and only removed, temporarily or otherwise, with authorization by an ISA-certified arborist after submission and approval of intent.
- Any entry or work within the TPZ of retained trees is prohibited. This includes but is not limited to the storage of materials, parking, or contaminating soil by washing out equipment.
- Retain a site arborist for the duration of the project that may conduct periodic site visits to investigate tree protection compliance any changes to tree condition.





**Image 1. An example of a Limit of Disturbance barrier. Contact information of the site manager or consulting arborist should also be included on the sign.**

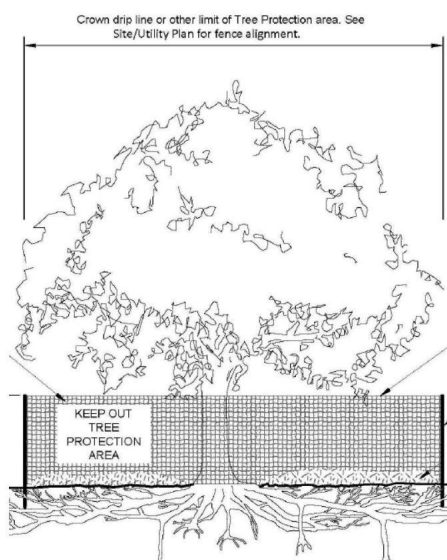
# TREE PROTECTION AREA (TPZ)

## KEEP OUT!

### DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

Trees enclosed by this fence are protected and are subject to the conditions of the tree permit. Violation of tree conditions may lead to:

1. Correction Notices or Stop Work Orders until compliance is achieved
2. RE Inspection Fees/financial penalties
3. Arborist reports recommending mitigation



#### Notes

1. No pruning shall be performed unless under the direction of the Project Arborist. Including limbing trees up.
2. No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
3. Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
4. Any work in approved TPZ must be with the permission of the City Arborist (206) 275-7713, [john.kenney@mercergov.org](mailto:john.kenney@mercergov.org).
5. 5" course woodchips within the tree protection zone, but not against the tree trunk.

Tree protection fence: 4-6" chain link fence, solidly anchored into the ground, or if authorized High-density polyethylene fencing with 3.5" x 1.5" openings; color orange. Steel posts installed at 8' o.c.

2" x 6" steel posts or approved equal

Maintain existing grade with the tree protection fence unless otherwise indication on the plans

Any Work in the protected area must be with the permission of the City Arborist [john.kenney@mercergov.org](mailto:john.kenney@mercergov.org)

*Image 1. An example of the required tree protection barrier signage.*

## Pre-Development Tree Care

Successful tree preservation efforts begin in the planning and design phase. In order to select the appropriate trees for preservation and then incorporate those trees into future development plans, site managers and designers need detailed information on the health and status of the existing trees. This report satisfies the conditions of the critical first step in the preservation process: a tree inventory, assessment, and analysis conducted by a qualified professional. The resulting findings guide the beginning stages of the preservation process.

Condition rating and preservation priority rating help nominate potential candidates for preservation. Development plans should ensure that no impact or root damage occurs within the inner root zone and plans should take into consideration the significant reduction in the likelihood of tree survival when the root zone is impacted. After individual trees are selected for preservation, the following action-steps are recommended prior to development activities:

- **Prune** trees, as necessary, to remove existing deadwood and stubs. This strategy controls potential future vectors of decay. Clean cuts made at branch collars allow the tree to undergo its natural process of compartmentalizing wounds, preventing the spread of decay. During the pruning process, remove as minimal amount of live foliage as possible and no more than 25%

removal in any one season while allowing for the safe and unimpeded operation of construction activities.

- **Install Tree Protection Zone (TPZ)** fencing out to the furthest possible radius distance from the tree.
- If the soil within the TPZ is compacted, then **aerate the soil** using an air spade to alleviate compaction and promote the flow of oxygen and water to the roots.
- **Add a 3-inch layer of mulch** to the portion of the root zone protected by the TPZ. Be sure not to cover/bury the tree root collar. Mulch aids the soil in water retention and also helps insulate the soil from hot and cold weather extremes.
- Where possible, **add a 12-inch layer of wood chips** over any parts of a root zone not protected by the TPZ. This aids in reducing the impact of soil compaction from heavy equipment during the upcoming construction activities.

## Tree Care During Development

Once development begins, several measures are necessary to help ensure optimal outcomes for all trees selected for preservation:

- **Retain a Certified Arborist** on site to monitor activities and assess impacts to trees. The arborist can make as-needed recommendations to improve tree preservation activities throughout the development process. This is particularly important in order to make a timely response when a preserved tree is accidentally damaged or otherwise impacted during development.
- **Signage** instructing site workers not to enter Tree Protection Zones should be posted throughout the job site. Signage should be posted in both English and Spanish as well as any other language as deemed necessary by site managers.
- **Discuss tree protection** regularly at required staff meetings. Reiterate the importance of respecting the Tree Protection Zone as critical to the safety of staff working on site and the success of tree preservation efforts.
- Strictly **enforce** the Tree Protection Zones as “No-Go” zones. No activity, human or machinery, should breach the established TPZ.
- **Root prune** where any grading or trenching occurs within the critical root zone.
- Ensure the area within the TPZ receives the **weekly watering** equivalent to the amount of average natural rainfall for the specific development site. When the amount of natural rainfall received is less than the historical average, manual watering methods should be employed. The on-site Certified Arborist can make the determination when additional manual watering is necessary.
- **Do not raise or lower the soil grade near the TPZ.** A tree relies upon small, non-woody roots called feeder roots for the absorption of water and nutrients. These roots predominantly reside in the upper several inches of soil, just below grade. Lowering the soil grade, even just a few inches, will sever these feeder roots and compromise tree health. Raising the soil above existing grade, such as through the addition of fill soil, buries feeder roots too deep and restricts feeder root access to water and oxygen.

## Post-Development

A successful tree preservation effort continues well past the conclusion of development activities:

- The preserved trees should be **re-inspected** for signs of impact that may have gone undetected during construction and mitigation measures assigned accordingly.
- The preserved trees should be placed on a **seasonal care plan** for two years that includes both monitoring and routine soil inoculation treatments designed to stimulate new root growth.
- Annual monitoring should continue for several years, as the effects of construction may take anywhere from 3 to 7 years to become visibly apparent.

# Concluding Remarks

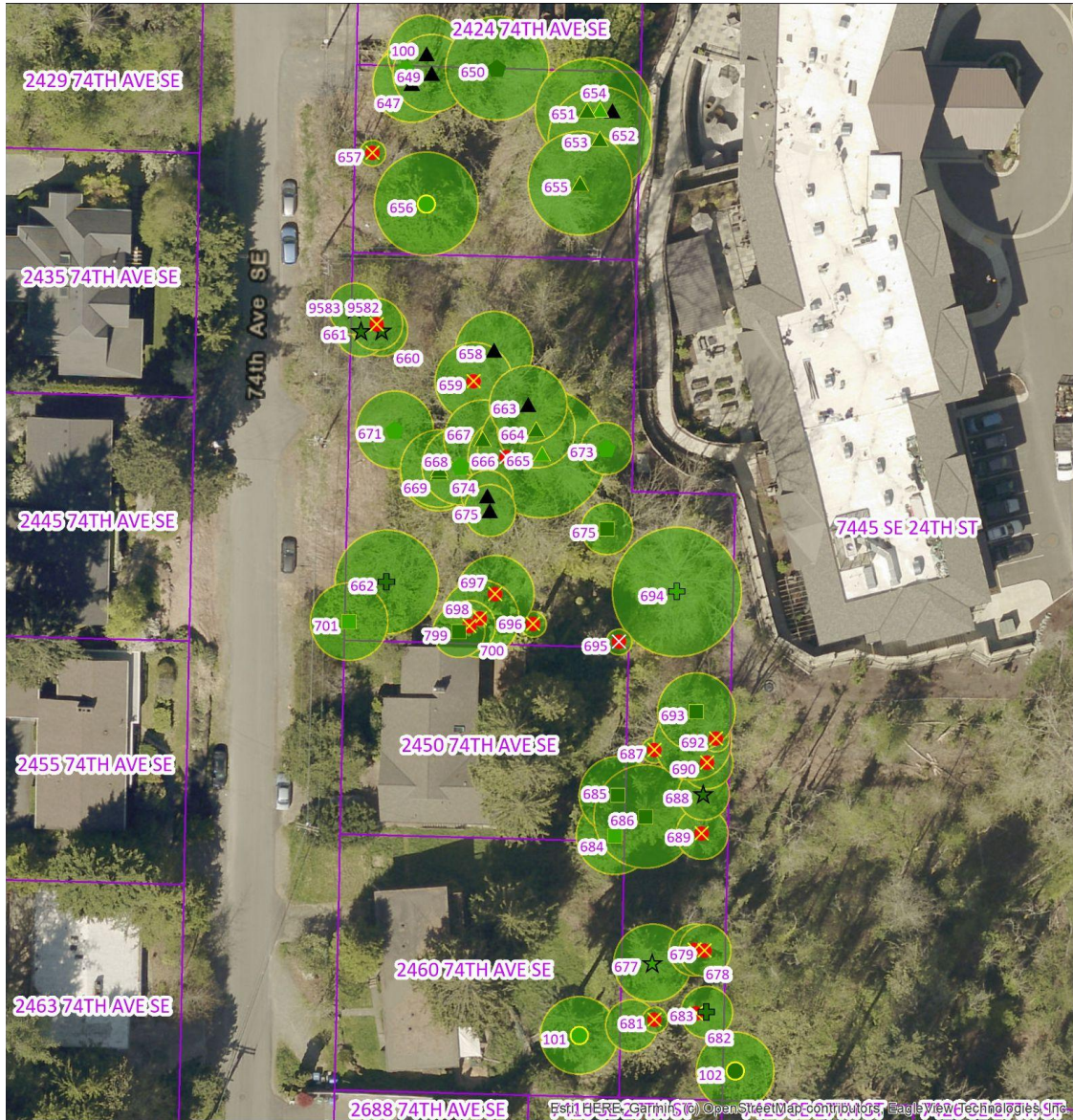
This report, along with the tree inventory, is the first step in preserving the health, function, and value of the trees on the site during and after development. Trees and green spaces provide benefits and add value to residential properties. Tree preservation starts with a basic understanding of the health and structure of the trees on the site. With proper care and protection, these trees can continue to thrive. Tree protection guidelines and strategies should be shared with contractors and employers prior to any disturbance at the site.

The suitability of a tree for preservation is a qualitative process based on the interaction of a variety of influencing factors. A tree inventory and arborist report provides a snapshot in time of each individual tree assessed across many of the most important observable factors relative to preservation. Healthy, vigorous trees better tolerate impacts from construction and more readily adapt to the new site conditions that exist after completion of development. Additionally, tolerance to impact from construction activities varies across species and sites. The percentage impact on the Limits Of Disturbance also greatly influences the suitability of a particular tree for preservation.

Successful tree preservation requires a team effort to find the right balance and select the appropriate trees. Using the findings of this report as a guiding foundation, planners are equipped to design, prepare, and implement a tree preservation plan tailored to achieving the optimal outcome.

# Appendix A: Inventory Site Map

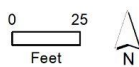
Map 1. Site map showing tree ID number. Aerial photos are only used for reference. Map projections may distort tree canopy size and locations.



- Preservation Priority, MICC Status, >24"**
- |                               |                               |
|-------------------------------|-------------------------------|
| ● 1, Large, Yes               | ⊕ 3, Large, Yes               |
| ○ 1, Large, No                | ⊕ 3, Large, No                |
| ■ 2, Large, Yes               | ★ 3, Exceptional, Yes         |
| ■ 2, Large, No                | ★ 3, Exceptional, No          |
| ▲ 2, Exceptional, Yes         | ⊕ 3, Exceptional (Grove), Yes |
| ▲ 2, Exceptional (Grove), Yes | ⊕ 3, Exceptional (Grove), No  |
| ▲ 2, Exceptional (Grove), No  | ⊗ 4, n/a (condition), Yes     |
| ▲ 2, Exceptional (Grove), No  | ⊗ 4, n/a (condition), No      |
| ○ Avg. Dripline               |                               |

## TREE INVENTORY

74th Ave  
Mercer Island, WA  
April 2023



\*Aerial imagery is from 2021. Imagery is for reference only.

**Map 2. Site map showing tree ID number. Aerial photos are only used for reference. Map projections may distort tree canopy size and locations.**

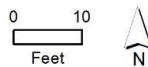


## TREE INVENTORY

Preservation Priority, MICC Status, >24"

- |                               |                               |
|-------------------------------|-------------------------------|
| ● 1, Large, Yes               | ⊕ 3, Large, Yes               |
| ○ 1, Large, No                | ⊖ 3, Large, No                |
| ■ 2, Large, Yes               | ★ 3, Exceptional, Yes         |
| ■ 2, Large, No                | ★ 3, Exceptional, No          |
| ▲ 2, Exceptional, Yes         | ⬢ 3, Exceptional (Grove), Yes |
| ▲ 2, Exceptional (Grove), Yes | ⬢ 3, Exceptional (Grove), No  |
| ▲ 2, Exceptional (Grove), No  | ⊗ 4, n/a (condition), Yes     |
| Avn Drinline                  | ⊗ 4, n/a (condition), No      |

74th Ave  
Mercer Island, WA  
April 2023



\*Aerial imagery is from 2021. Imagery is for reference only.

**Map 3. Site map showing tree ID number. Aerial photos are only used for reference. Map projections may distort tree canopy size and locations.**

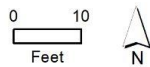


**Preservation Priority, MICC Status, >24"**

- |                               |                               |
|-------------------------------|-------------------------------|
| ● 1, Large, Yes               | ⊕ 3, Large, Yes               |
| ● 1, Large, No                | ⊕ 3, Large, No                |
| ■ 2, Large, Yes               | ★ 3, Exceptional, Yes         |
| ■ 2, Large, No                | ★ 3, Exceptional, No          |
| ▲ 2, Exceptional, Yes         | ⬢ 3, Exceptional (Grove), Yes |
| ▲ 2, Exceptional (Grove), Yes | ⬢ 3, Exceptional (Grove), No  |
| ▲ 2, Exceptional (Grove), No  | ✗ 4, n/a (condition), Yes     |
| ○ Avg. Dripline               | ✗ 4, n/a (condition), No      |

## TREE INVENTORY

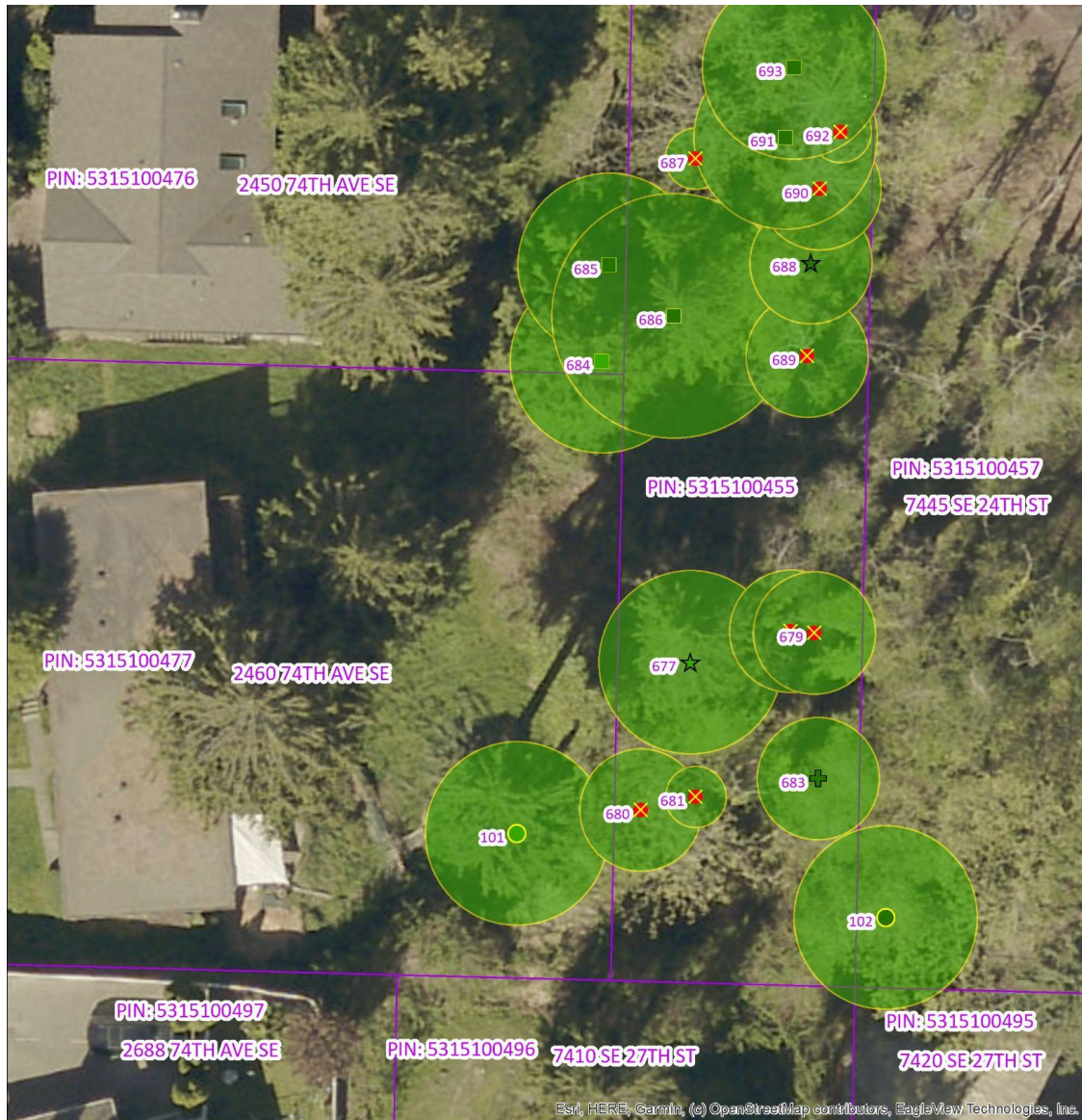
74th Ave  
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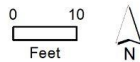
**Map 4. Site map showing tree ID number. Aerial photos are only used for reference. Map projections may distort tree canopy size and locations.**



### TREE INVENTORY

- Preservation Priority, MICC Status, >24"**
- |                               |                               |
|-------------------------------|-------------------------------|
| ● 1, Large, Yes               | ⊕ 3, Large, Yes               |
| ○ 1, Large, No                | ⊕ 3, Large, No                |
| ■ 2, Large, Yes               | ★ 3, Exceptional, Yes         |
| ■ 2, Large, No                | ★ 3, Exceptional, No          |
| ▲ 2, Exceptional, Yes         | ⊕ 3, Exceptional (Grove), Yes |
| ▲ 2, Exceptional (Grove), Yes | ⊕ 3, Exceptional (Grove), No  |
| ▲ 2, Exceptional (Grove), No  | ⊗ 4, n/a (condition), Yes     |
| ■ Avg. Dripline               | ⊗ 4, n/a (condition), No      |

74th Ave  
Mercer Island, WA  
April 2023



\*Aerial imagery is from 2021. Imagery is for reference only.

## Appendix B. Inventory Table

| Tree ID | Species  | MICC Status         | DBH (in) | Height (ft) | Avg. Canopy Radius (ft) | Cond. | Pres. Priority | Observations  | Parcel #    |
|---------|--|---------------------|----------|-------------|-------------------------|-------|----------------|---|-------------|
| 100     | Maple, Bigleaf ( <i>Acer macrophyllum</i> )      | Exceptional (Grove) | 20       | 70          | 15                      | Fair  | 2              | Full, minor deadwood, Ivy, codominant stem, Steep slope, blackberry                             | 53151 00460 |
| 101     | Douglas-fir ( <i>Pseudotsuga menziesii</i> )     | Large               | 25       | 70          | 15                      | Fair  | 1              | LCR 30%, Slight lean, Raised root collar  | 53151 00477 |
| 102     | Maple, Bigleaf ( <i>Acer macrophyllum</i> )      | Large               | 22       | 70          | 15                      | Fair  | 1              | Full, , Ivy, blackberry, steep slope  | 53151 00457 |
| 647     | Maple, Bigleaf ( <i>Acer macrophyllum</i> )      | Exceptional (Grove) | 17       | 70          | 15                      | Fair  | 2              | Full, minor deadwood, Ivy, Steep slope, blackberry  | 53151 00458 |
| 648     | Maple, Bigleaf ( <i>Acer macrophyllum</i> )      | Exceptional (Grove) | 10       | 35          | 10                      | Poor  | 3              | Onesided to the North, broken top, Ivy, Steep slope, blackberry, stump sprout                   | 53151 00458 |
| 649     | Maple, Bigleaf ( <i>Acer macrophyllum</i> )      | Exceptional (Grove) | 14       | 70          | 15                      | Fair  | 2              | Onesided to the south, minor deadwood, Ivy, codominant stem, Steep slope, blackberry            | 53151 00458 |
| 650     | Maple, Bigleaf ( <i>Acer macrophyllum</i> )      | Exceptional (Grove) | 29       | 70          | 20                      | Poor  | 3              | Full, major deadwood, Ivy, codominant stem, ganoderma conk, inclusion,, Steep slope, blackberry | 53151 00458 |
| 651     | Cottonwood, Black ( <i>Populus trichocarpa</i> ) | Exceptional (Grove) | 28       | 90          | 20                      | Fair  | 2              | Onesided to the SE, Ivy, slight lean, Steep slope, blackberry                                   | 53151 00458 |

| Tree ID | Species                                 | MICC Status         | DBH (in) | Height (ft) | Avg. Canopy Radius (ft) | Cond. | Pres. Priority | Observations   | Parcel #    |
|---------|---|---------------------|----------|-------------|-------------------------|-------|----------------|--|-------------|
| 652     | Cottonwood, Black (Populus trichocarpa) | Exceptional         | 39       | 90          | 20                      | Fair  | 2              | Full,, Ivy, codominant stem,, Steep slope, blackberry  | 53151 00458 |
| 653     | Cottonwood, Black (Populus trichocarpa) | Exceptional (Grove) | 38       | 90          | 20                      | Fair  | 2              | Full,, Ivy, codominant stem,, Steep slope, blackberry  | 53151 00458 |
| 654     | Douglas-fir (Pseudotsuga menziesii)     | Exceptional (Grove) | 12       | 70          | 10                      | Fair  | 2              | Onesided to west, suppressed, Ivy, lean to west (corrected), Steep slope, blackberry                               | 53151 00458 |
| 655     | Cottonwood, Black (Populus trichocarpa) | Exceptional (Grove) | 24       | 90          | 20                      | Fair  | 2              | Full,, , Steep slope, blackberry   | 53151 00458 |
| 656     | Cedar, Western-red (Thuja plicata)      | Large               | 28       | 90          | 20                      | Good  | 1              | Full,, , Steep slope, blackberry   | 53151 00458 |
| 657     | Maple, Bigleaf (Acer macrophyllum)      | n/a (condition)     | 14       | 50          | 5                       | Dead  | 4              | Dead, Ivy, cavity, Steep slope, blackberry   | 53151 00458 |
| 658     | Cottonwood, Black (Populus trichocarpa) | Exceptional (Grove) | 22       | 75          | 15                      | Fair  | 2              | Full,, Many large burls, poor structure, Steep slope, blackberry   | 53151 00455 |
| 659     | Maple, Bigleaf (Acer macrophyllum)      | n/a (condition)     | 18       | 55          | 15                      | Poor  | 4              | Onesided to the S, major deadwood, Ivy, cavity, Steep slope, blackberry  | 53151 00455 |
| 660     | Willow (Salix spp.)                     | Exceptional         | 16       | 55          | 10                      | Fair  | 3              | Minor deadwood, broken branches, very poor structure, 3 stems,, Steep slope, blackberry                            | 53151 00455 |
| 661     | Willow (Salix spp.)                     | Exceptional         | 14       | 55          | 10                      | Fair  | 3              | Minor deadwood, broken branches, very poor structure, Poor structure, Steep slope, blackberry, large surface roots | 53151 00455 |

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|---------|--|---------------------|----------|-------------|-------------------------|-----------|----------------|--|-------------|
| 662     | Maple, Bigleaf ( <i>Acer macrophyllum</i> )      | Large               | 21       | 60          | 20                      | Poor      | 3              | Onesided to the E, major deadwood, cavity,, Ivy, 4 stems, stump sprouts, decay,, Steep slope, blackberry, stump sprout | 53151 00455 |
| 663     | Cottonwood, Black ( <i>Populus trichocarpa</i> ) | Exceptional (Grove) | 20       | 80          | 15                      | Fair      | 2              | Onesided to S, major deadwood, Straight, Steep slope, blackberry   | 53151 00455 |
| 664     | Cottonwood, Black ( <i>Populus trichocarpa</i> ) | Exceptional (Grove) | 27       | 80          | 15                      | Fair      | 2              | Full, major deadwood, Straight, Steep slope, blackberry  | 53151 00455 |
| 665     | Cottonwood, Black ( <i>Populus trichocarpa</i> ) | Exceptional         | 37       | 80          | 25                      | Fair      | 2              | Full, minor deadwood, Codominant stem at 6 ft, large inclusion, ivy, Steep slope, blackberry, large surface roots      | 53151 00455 |
| 666     | Cottonwood, Black ( <i>Populus trichocarpa</i> ) | n/a (condition)     | 24       | 80          | 15                      | Very Poor | 4              | Onesided to NW, major deadwood, serious decline, Lean to NW, Steep slope, blackberry, large surface roots              | 53151 00455 |
| 667     | Cottonwood, Black ( <i>Populus trichocarpa</i> ) | Exceptional (Grove) | 29       | 80          | 15                      | Fair      | 2              | Full canopy, major deadwood, Relatively straight, defect free,, Steep slope, blackberry, large surface roots           | 53151 00455 |
| 668     | Cottonwood, Black ( <i>Populus trichocarpa</i> ) | Exceptional (Grove) | 22       | 80          | 15                      | Fair      | 3              | Onesided to the north, Significant lean north, Steep slope, blackberry, large surface roots                            | 53151 00455 |

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|---------|---|---------------------|----------|-------------|-------------------------|-----------|----------------|--|-------------|
| 669     | Cottonwood, Black (Populus trichocarpa) | Exceptional (Grove) | 30       | 80          | 15                      | Fair      | 2              | Full canopy, Joined at base with adjacent tree, Steep slope, blackberry, large surface roots   | 53151 00455 |
| 670     | Cottonwood, Black (Populus trichocarpa) | Exceptional (Grove) | 24       | 80          | 15                      | Fair      | 2              | Onesided to east, Joined at base with adjacent tree, Steep slope, blackberry, large surface roots  | 53151 00455 |
| 671     | Maple, Bigleaf (Acer macrophyllum)      | Exceptional (Grove) | 15       | 65          | 15                      | Poor      | 3              | Sparse canopy, signs of stress, 5% brown foliage, Poor structure, codominant stem, Steep slope, blackberry, raised root collar, multiple trees from same point | 53151 00455 |
| 673     | Maple, Bigleaf (Acer macrophyllum)      | Exceptional (Grove) | 12       | 65          | 10                      | Poor      | 3              | Onesided to the W, major deadwood, ivy, Heavy ivy, Steep slope, blackberry   | 53151 00455 |
| 674     | Cedar, Western-red (Thuja plicata)      | Exceptional (Grove) | 10       | 60          | 10                      | Fair      | 2              | Suppressed, sparse, , Steep slope  | 53151 00455 |
| 675     | Cedar, Western-red (Thuja plicata)      | Exceptional (Grove) | 12       | 60          | 10                      | Fair      | 2              | Suppressed, sparse, , Steep slope  | 53151 00455 |
| 676     | Maple, Bigleaf (Acer macrophyllum)      | Large               | 10       | 60          | 10                      | Fair      | 2              | Sparse, major deadwood, poor structure, Slight lean, Steep slope   | 53151 00455 |
| 677     | Cedar, Western-red (Thuja plicata)      | Exceptional         | 35       | 80          | 15                      | Very Poor | 3              | Sparse, heavy ivy, signs of stress, Heavy ivy, Ivy, blackberry, steep slope  | 53151 00455 |

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|---------|---|-----------------|----------|-------------|-------------------------|-----------|----------------|--|-------------|
| 678     | Cottonwood, Black (Populus trichocarpa) | n/a (condition) | 18       | 60          | 10                      | Very Poor | 4              | Sparse, heavy ivy, signs of stress, hanging deadwood, Heavy ivy, Ivy, blackberry, steep slope      | 53151 00455 |
| 679     | Alder, Red (Alnus rubra)                | n/a (condition) | 14       | 60          | 10                      | Very Poor | 4              | Sparse, heavy ivy, signs of stress, hanging deadwood, Heavy ivy, Ivy, blackberry, steep slope      | 53151 00455 |
| 680     | Maple, Bigleaf (Acer macrophyllum)      | n/a (condition) | 14       | 60          | 10                      | Very Poor | 4              | Onesided N, minor deadwood, Codominant stem, inclusion, lean to west, Ivy, blackberry, steep slope | 53151 00455 |
| 681     | Alder, Red (Alnus rubra)                | n/a (condition) | 10       | 60          | 5                       | Very Poor | 4              | Ivy, serious decline, Heavy ivy, cavity, seam, Ivy, blackberry, steep slope                        | 53151 00455 |
| 682     | Alder, Red (Alnus rubra)                | n/a (condition) | 14       | 40          | 5                       | Very Poor | 4              | Ivy, serious decline, Heavy ivy,, Ivy, blackberry, steep slope                                     | 53151 00455 |
| 683     | Alder, Red (Alnus rubra)                | Large           | 12       | 60          | 10                      | Fair      | 3              | Ivy, signs of stress, Heavy ivy, poor structure, Ivy, blackberry, steep slope                      | 53151 00455 |
| 684     | Cedar, Western-red (Thuja plicata)      | Large           | 25       | 70          | 15                      | Fair      | 2              | Sparse,, Codominant stem,,   | 53151 00455 |
| 685     | Cedar, Western-red (Thuja plicata)      | Large           | 12       | 70          | 15                      | Fair      | 2              | Sparse,, ,   | 53151 00455 |
| 686     | Cedar, Western-red (Thuja plicata)      | Large           | 20       | 70          | 20                      | Fair      | 2              | Sparse,, Codominant stem, poor structure, wishbone union at base,                                  | 53151 00455 |

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|---------|---|-----------------|----------|-------------|-------------------------|-----------|----------------|--|-------------|
| 687     | Cherry (Prunus spp.)                    | n/a (condition) | 11       | 25          | 5                       | Very Poor | 4              | Sparse, deadwood, Codominant stem, poor structure, flaking bark,   | 53151 00455 |
| 688     | Willow (Salix spp.)                     | Exceptional     | 12       | 50          | 10                      | Poor      | 3              | Sparse, deadwood, onesided to the north., Twisted, leaning to the north,   | 53151 00455 |
| 689     | Alder, Red (Alnus rubra)                | n/a (condition) | 18       | 65          | 10                      | Dying     | 4              | Sparse, deadwood, Flaking bark, decay,   | 53151 00455 |
| 690     | Willow (Salix spp.)                     | n/a (condition) | 19       | 65          | 10                      | Dying     | 4              | 50% dead branches, Decay, cavity,  | 53151 00455 |
| 691     | Maple, Bigleaf (Acer macrophyllum)      | Large           | 13       | 65          | 15                      | Fair      | 2              | Deadwood, onesided to the east, Slight lean to the east, Blackberry, ivy, horsetail  | 53151 00455 |
| 692     | Cedar, Western-red (Thuja plicata)      | n/a (condition) | 15       | 65          | 5                       | Dead      | 4              | , ,  | 53151 00455 |
| 693     | Maple, Bigleaf (Acer macrophyllum)      | Large           | 12       | 65          | 15                      | Fair      | 2              | Full crown, , Blackberry, ivy, horsetail   | 53151 00455 |
| 694     | Cottonwood, Black (Populus trichocarpa) | Large           | 33       | 100         | 25                      | Fair      | 3              | Full crown, large hanging deadwood, Large tree with multiple large limb failures, may not be practical to preserve, any construction impacts would flag for removal. Targets under canopy., , Blackberry, ivy, horsetail | 53151 00455 |
| 695     | Maple, Bigleaf (Acer macrophyllum)      | n/a (condition) | 37       | 25          | 5                       | Dead      | 4              | , Multistem, snag,   | 53151 00455 |
| 696     | Maple, Bigleaf (Acer macrophyllum)      | n/a (condition) | 22       | 25          | 5                       | Dead      | 4              | , Msnag,   | 53151 00455 |

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| 697     | Maple, Bigleaf ( <i>Acer macrophyllum</i> )      | n/a (condition) | 22       | 75          | 15                      | Poor  | 4              | 6 large stubs from broken branches, recently exposed to north wind, Lean to the south, ivy, Saturated soil, blackberry, ivy     | 53151 00455 |
| 698     | Maple, Bigleaf ( <i>Acer macrophyllum</i> )      | n/a (condition) | 20       | 75          | 15                      | Poor  | 4              | Large deadwood, onesided south,, Lean to the south, ivy, large basal cavity, multistem at base, Saturated soil, blackberry, ivy | 53151 00455 |
| 699     | Cedar, Western-red ( <i>Thuja plicata</i> )      | Large           | 13       | 35          | 10                      | Good  | 2              | Full canopy, Interesting structure, swooping, Saturated soil, blackberry, ivy   | 53151 00455 |
| 700     | Cottonwood, Black ( <i>Populus trichocarpa</i> ) | n/a (condition) | 21       | 75          | 10                      | Poor  | 4              | Large deadwood, 5 large broken stubs, Ivy, Saturated soil, blackberry, ivy  | 53151 00455 |
| 701     | Cedar, Western-red ( <i>Thuja plicata</i> )      | Large           | 24       | 50          | 15                      | Good  | 2              | Suppressed, , Steep slope, blackberry, stump sprout   | 53151 00455 |
| 9582    | Hawthorn, Black ( <i>Crataegus douglasii</i> )   | n/a (condition) | 8        | 30          | 10                      | Poor  | 4              |   | 53151 00455 |
| 9583    | Willow ( <i>Salix spp.</i> )                     | Exceptional     | 8        | 25          | 10                      | Fair  | 3              |   | 53151 00455 |