

Level 1 Tree Risk Assessment Report



Prepared For: Chestnut Trails HOA

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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

Davey Resource Group Inc. (DRG) was contracted by Anne Davidson to perform a Level 1 Tree Risk Assessment of the trees that exist in the Native Growth Protection Area (NGPA) within Chestnut Trails residential community. On November 8 and 9, 2021, an International Society of Arboriculture (ISA) Certified Arborist (WE-11849AU) and Qualified Tree Risk Assessor from DRG conducted an assessment of the trees. The trees were assessed by their location, size, current condition, and overall health. The data was then used to determine a risk rating. The current edition of the Tree Risk Assessment Manual (ISA, 2013) was used to guide the risk rating of the tree as well as the potential strategies for care and risk abatement.

The purpose of this report is to provide the details of the risk assessment results. The findings in this report can be used to decide whether trees may need to be removed, or retained with restorative pruning and plant health care.

Methods

Data was collected by an ISA Certified Arborist (Marc Leonard - WE-11849AU) on November 8 and 9, 2021. A limited visual inspection was used to develop the findings, conclusions, and recommendations found in this report. This level 1 assessment method is intended as a rapid assessment in order to identify trees with obvious defects or conditions of concern that could impact HOA properties. Only trees with imminent and/or probable likelihood of failure in a 2 year timeframe had data collected. As a Level 1 Risk Assessment, no risk rating was developed for any tree. No physical inspection of the upper canopy, root crown excavation, use of a resistograph, or other technologies were used in the evaluation of the trees.

The following attributes were collected for each site:

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 the tree was recorded in one of the following categories adapted from the rating system established by the International Society of Arboriculture:

- **Good:** A fully branched and leafed canopy; branches over 2 inches in diameter exhibit little to no dieback; little to no epicormic growth (i.e., sprouting from the trunk, limbs, or roots); and little to no aesthetic damage from insects or disease. The tree displays a growth habit characteristic of the species. The wood has no major structural problems and no significant mechanical damage. The tree exhibits good overall vigor.
- **Fair:** The canopy is thinning and there is less than average new growth present, or there is noticeable dead wood over 2" diameter or dieback throughout the majority of the crown, or there is significant mechanical damage to the trunk or root system, or the tree is otherwise exhibiting

significant signs of stress and potential decline. The following signs or symptoms may be present in the tree: significant damage from non-fatal or disfiguring diseases, minor crown imbalance or thin crown, and/or stunted growth compared to adjacent trees. This condition also includes trees that have been topped but show reasonable vitality and no obvious signs of decay.

- **Poor:** The tree is in obvious decline or poses a significant risk that requires immediate mitigation. There are significant amounts of dieback or dead/dying limbs greater than 2" diameter; there is minimal to no growth; or there is extensive decay to the trunk or root system, raising concerns of structural integrity. A tree in this category may also have severe mechanical damage or poor vigor threatening its ability to thrive.
- **Critical:** The tree is dying and/or presents an unacceptable risk which necessitates immediate removal.
- **Dead**

Tree Number: The tree ID number was assigned.

Location and Unique ID: An X and Y coordinate was generated for each tree site.

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.

Height: Tree Height estimated to the nearest <5ft.

Avg. Canopy Radius: Average dripline distance was measured.

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 limited 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, root crown excavation, and resistograph, or other technologies, were used in the evaluation of the trees.

Level 1 Tree Risk Assessment

Observations & Recommendations

A total of twenty-seven (27) trees were inspected and underwent a Level 1 Tree Risk Assessment.

Thirteen (13) trees are dead and are recommended to be **removed**.

- Two (2) trees are remaining snags of previously failed or removed trees. The two decomposed snags are tall enough to impact targets when whole tree failure occurs.

Tree ID# 4968 has a heavy lean that reaches over a park bench and basketball court. **Removal** is recommended.

Three (3) trees are in critical condition and show signs of serious decline in overall health. The trees are recommended to be **removed**.

- **Tree ID# s 4988, 4962, and 4967**

Three (3) trees should have an **additional inspection** (Level 2 Tree Risk Assessment) to determine the source of stress (ie. biotic or abiotic). Alternatively, the trees should be removed in order to effectively mitigate the risk of failure.

- **Tree ID#s 4983, 4984, and 4985**

Tree ID# 4966 has large deadwood that overhangs the community trail in the NGPA. The **pruning of the deadwood** is recommended to effectively eliminate the risk of tree part failure.

Six (6) trees were assessed and determined not to be hazardous at the time. **Continued monitoring** of the trees is recommended.

- **Tree ID# 4963:** Low, codominant stems have a fallen log resting between the two stems and show signs of rot. Internal rot is present at small cavity sites of the two stems. Stem/trunk bark is healing over.
- **Tree ID# 4973:** Codominant stems with oozing pitch. No signs of separation or major included bark.
- **Tree ID# 4974:** Included bark of codominant stems two-thirds up the trunk of the tree.
- **Tree ID# 4976:** Low, codominant stems with included bark and minor pitch secretion.
- **Tree ID# 4982:** Codominant stems growing into one another. No included bark is present.
- **Tree ID# 4975:** Included bark of codominant branches.

There are two options to mitigate the risk of the trees determined to be dead:

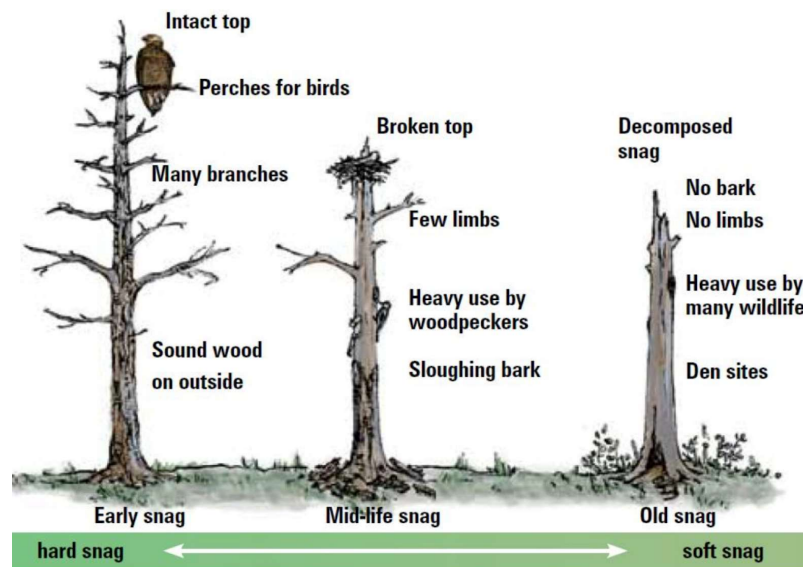
Option #1 - Remove the tree and all tree parts.

Option #2 - Leave 'snag' as a wildlife habitat. Remove the crown and cut the trunk down to 15 feet. As the remaining trunk decays over years, it will provide valuable habitat to many species of native fauna, such as Northern Flickers and Pileated Woodpeckers. This option is only recommended if the client is willing to accept the level of risk from the failing snag. The house stands 25 feet away from the tree and the remaining snag would have a fall radius of 22.5 feet. The inevitable failure of the snag will not impact the house as a target, however, the risk would be greatest for those recreating in the area.

Habitat Snags

Trees to be removed at the project site may be topped at a safe height and left as habitat snags for wildlife food, nesting, or shelter. Standing or downed deadwood plays an important role in the landscape. Tree removals at the site present an opportunity to promote and increase wildlife activity and diversity at the site. The arborist performing the removals will be consulted to decide the potential for a habitat snag designation on a tree-by-tree basis. In some cases, guy wires may be attached to the tree and anchored in the ground to create a safe snag out of a taller tree.

An example image of habitat snag life stages and wildlife potential.



Appendix A: Maps

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

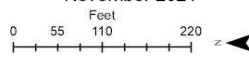


Condition

- Excellent
- Good
- Fair
- Poor
- Critical
- Dead

Tree Inventory

Chestnut Trails HOA
Bothell, WA
November 2021



* Property boundaries and tree locations are approximate. Aerial imagery is from 2019.

Prepared by:



Map 2: Site map of centered western portion of Chestnut Trails along 34th Ave SE.

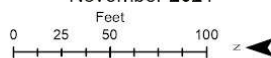


Condition

- Excellent
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Tree Inventory

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Appendix B: Tree Inventory Table

Tree ID#	Species	DBH (in)	Height (ft)	Avg. Canopy Radius (ft)	Condition	Observations	Recommendation
4962	Scouler willow (<i>Salix scouleriana</i>)	9	65	10	Critical	Poor Structure, Serious Decline	Remove
4963	Scouler willow (<i>Salix scouleriana</i>)	19, 13	80	20	Fair	Codominant Stem, Cracks, Trunk Decay	Monitor
4964	Douglas fir (<i>Pseudotsuga menziesii</i>)	8	70	5	Dead	Dead	Remove
4965	Douglas fir (<i>Pseudotsuga menziesii</i>)	4	30	5	Dead	Dead	Remove
4966	Douglas fir (<i>Pseudotsuga menziesii</i>)	30	140	20	Excellent	Large Deadwood (>3")	Crown Clean
4967	Scouler willow (<i>Salix scouleriana</i>)	12	40	10	Critical	Serious Decline	Remove
4968	Beaked hazelnut (<i>Corylus cornuta</i>)	6	25	10	Good	Lean	Remove
4969	Douglas fir (<i>Pseudotsuga menziesii</i>)	13	70	10	Dead	Dead	Remove
4970	Unknown (snag)	8	35	5	Dead	Dead	Remove
4971	Douglas fir (<i>Pseudotsuga menziesii</i>)	8	35	10	Dead	Dead	Remove
4972	Unknown (snag)	6	20	5	Dead	Dead	Remove
4973	Paper birch (<i>Betula papyrifera</i>)	8, 9	65	15	Good	Codominant Stem, Included Bark	Monitor
4974	Douglas fir (<i>Pseudotsuga menziesii</i>)	19	105	15	Good	Codominant Stem, Included Bark	Monitor
4975	Bigleaf maple (<i>Acer macrophyllum</i>)	18, 36	90	30	Good	Codominant Stem, Included Bark, Large Deadwood (+3")	Monitor
4976	Douglas fir (<i>Pseudotsuga menziesii</i>)	32	135	25	Good	Codominant Stem, Included Bark	Monitor
4977	Black cottonwood (<i>Populus trichocarpa</i>)	7	30	5	Dead	Dead	Remove

Tree ID#	Species	DBH (in)	Height (ft)	Avg. Canopy Radius (ft)	Condition	Observations	Recommendation
4978	Black cottonwood (<i>Populus trichocarpa</i>)	4	25	5	Dead	Dead	Remove
4979	Black cottonwood (<i>Populus trichocarpa</i>)	7	30	5	Dead	Dead	Remove
4980	Red alder (<i>Alnus rubra</i>)	4	25	5	Dead	Dead	Remove
4981	Red alder (<i>Alnus rubra</i>)	7	45	5	Dead	Dead	Remove
4982	Red alder (<i>Alnus rubra</i>)	15	50	20	Good	Codominant Stem, Included Bark	Monitor
4983	Red alder (<i>Alnus rubra</i>)	10	70	15	Poor	Stressed, Codominant Stem, Additional Inspection Needed	Monitor and/or Remove
4984	Red alder (<i>Alnus rubra</i>)	8	60	10	Poor	Stressed, Codominant Stem, Lean, Additional Inspection Needed	Monitor and/or Remove
4985	Red alder (<i>Alnus rubra</i>)	9	75	10	Critical	Dead/Missing Bark, Additional Inspection Needed	Monitor and/or Remove
4986	Red alder (<i>Alnus rubra</i>)	6	50	5	Dead	Dead	Remove
4987	Red alder (<i>Alnus rubra</i>)	6	50	5	Dead	Dead	Remove
4988	Scouler willow (<i>Salix scouleriana</i>)	10	45	15	Critical	Dead/Missing Bark, Stressed, Codominant Branches, Declining Health	Remove