



Portland Tree Consultancy

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ARBORIST REPORT 2

Tree Inventory & Tree Protection Plan

DATE: August 28th, 2023
PROPERTY ADDRESS: 17911 NW Evergreen Place, Beaverton, Oregon
PROPERTY OWNER: Washington County
CLIENT REFERENCE: CATT ISB Project for HOLST Architecture
PROJECT DESCRIPTION: Tree Inventory & Tree Protection Planning

Introduction

A tree survey, site inspection and tree condition assessment was completed on the above referenced property on February 17th, 2023 in preparation for a Tree Plan as required by the City of Beaverton. Table 1 and Figure 1 detail all trees on the property and trees on adjacent property that may be affected by development on the subject property. On examining the Inventory of Significant Trees there do not appear to be any 'Significant Trees' on the property. The City of Beaverton regulates 'Community Trees' which are trees of 10-inches DBH and over.

Where direct access was possible the trees were examined using the Visual Tree Assessment method and these inspections meet the International Society of Arboriculture Type 2 Risk Assessment standard.

The property is 2-acres in size and fully developed. All the site trees are landscape plantings. Four off-site trees are noted in Figure 1 (A,B,C,D) and it is possible that they may be affected by adjacent development. Tree A is considered a Moderate/High failure risk and consideration should be given to its removal (see Offsite Tree section)

Tree Preservation & Tree Protection

Twenty-Four on-site trees will be preserved and protected: (Tree 1 – 19; Tree 20; Tree 44; Tree 49; Tree 50; Tree 53). None of the adjacent off-site trees (detailed below) will be affected by on-site development. The detail within this report is represented on sheet DR-501 Tree Protection & Removal Plan.

General requirements:

1. Tree Protection Fencing meeting the specifications of City of Beaverton Development Code will be installed at the locations shown on the plan sheet.
2. Tree Protection Fence installation will be completed before any staging and storage of construction materials commences.
3. Any tree pruning required to allow fence installation shall be completed under the supervision of an ISA Certified Arborist.
4. No staging or storage of spoil, construction materials, equipment or liquids will occur within the areas protected by the Tree Protection Fencing.
5. No grade changes, fill or excavations will take place within the areas protected by the Tree Protection Fencing.
6. Any activity to be completed within the areas protected by the Tree Protection Fencing protected areas must be completed under the supervision of an ISA Certified Arborist.

Tree Protection discussion (Trees 1-19)

The root zones of this group of (mainly) large evergreen trees will remain undisturbed; no excavation or grade changes are proposed adjacent to these trees. A Tree Protection Fence (TPF) will enclose these trees as a group and create a closed area of protection. The TPF will be over 40-ft to the west and 20-ft (extending to 30-ft) to the south. No negative effects on this group of trees are expected. Some existing fencing can be used.

Tree Protection discussion (Tree 44)

This semi-mature maple is around 10-inches DBH and will be fully protected by a TPF which will extend in radius a minimum of 15-ft from the tree. No negative effects on this tree can be expected.

Tree Protection discussion (Trees 49, 50, 53)

These ornamental landscape trees along the west side of the building will be protected by a TPF placed to allow adjacent paving for a footpath. The major infringement within the critical root zone of these trees concerns Tree 53. The TPF is placed between 1 to 2-ft from Tree 53. However, in this situation the following factors will allow this tree to maintain its existing condition: a) the tree is fairly small (12-inches DBH); b) excavation will be shallow for footpath construction and will be around 4-ft from the tree; and c) only one quadrant of the root zone will be affected by disturbance.

Tree Protection discussion (Tree 20)

This large diameter Giant sequoia is within a parking lot planter area at the southeast corner of the site. No disturbance will take place around the tree and it is proposed to place the TPF around the soft surface area of the planter area. No negative effects can be expected. Note also that the vigor of this tree is less than optimal (see notes below) and any reduction in paved surface around this tree will significantly benefit the tree.

Offsite Trees

There are four offsite trees that may be affected by development on the subject property (see Fig. 1)

Tree A is not shown on the land survey and appears to be a few feet outside the property line. The tree is an early mature Black cottonwood (*Populus trichocarpa*) with four measurable stems giving an approximately DBH of 38-inches. The tree appears self-sown and is doing considerable damage to the asphalt paving on the adjacent property. The tree has a weak basal stem union with wood separation and included bark; it appears likely that first failure will occur onto the Washington Co. property. ***It is recommended that this tree is removed as it is considered a Moderate/High failure risk within the next 10-years (ISA Risk Rating category).***

Tree B is a landscape planting a couple feet from the property line and 2-ft from an off-site asphalt footpath. The tree is a semi-mature (10-inches DBH) Douglas fir (*Pseudotsuga menziesii*) in 'Good' condition. The tree has no defects and should be protected from on-site development; the branches extend 5 to 10-ft over the property line. Linear excavation or other major disturbance should be kept 8-ft from the tree.

Tree C is a landscape planting a couple of feet from the property line. This Western red cedar (*Thuja plicata*) is semi-mature (10-inches DBH) and has excellent vigor and vitality. The tree condition is considered as 'Good'. The tree has no defects and should be protected from on-site development; the branches extend 5 to 10-ft over the property line. Linear excavation or other significant disturbance should be kept 8-ft from the tree.

Tree D is not shown on the land survey and is 5-ft from the existing fence line. The tree appears to be self-sown and is a Pin oak (*Quercus palustris*)> The tree is 19-inches DBH and is in 'Good/Fair' condition; the tree has codominant stems from 5-ft above grade and the stem union is weak but not a failure risk at this time. Linear excavation should be kept 10-ft from the base of the tree to ensure maintenance of its existing condition.

Table 1. Tree Inventory (site trees) February 17th, 2023

ID	Tree Species	DBH RPZ	INV	Condition	Tree Condition Notes	Location Notes
1	Giant sequoia <i>Sequoiadendron giganteum</i>	42	No	Good	Canopy dominant. Shaded out lower CR area. No sig defects	5-ft from BLDG
2	Giant sequoia <i>Sequoiadendron giganteum</i>	33	No	Good	Reduced CR. Vigor adequate	5-ft from BLDG
3	Giant sequoia <i>Sequoiadendron giganteum</i>	31	No	Good	Reduced CR. Vigor adequate. Heavy SR 10-15-ft	3-ft from FL/retain wall
4	Giant sequoia <i>Sequoiadendron giganteum</i>	30	No	Good	Canopy codominant. Heavy SR 10-15-ft	2-ft from FL/retain wall
5	Giant sequoia <i>Sequoiadendron giganteum</i>	29	No	Good	Canopy codominant Heavy SR 10-15-ft	3-ft from FL/retain wall
6	Giant sequoia <i>Sequoiadendron giganteum</i>	24	No	Good	Canopy codominant Heavy SR 10-15-ft	3-ft from FL/retain wall
7	Giant sequoia <i>Sequoiadendron giganteum</i>	21	No	Good	Canopy codominant Heavy SR 10-15-ft	5-ft from FL/retain wall
8	Giant sequoia <i>Sequoiadendron giganteum</i>	32	No	Good	Canopy codominant Shaded out lower CR area. No sig defects	5-ft from FL/retain wall
9	Giant sequoia <i>Sequoiadendron giganteum</i>	31	No	Good	Canopy codominant Shaded out lower CR area. No sig defects	
10	Giant sequoia <i>Sequoiadendron giganteum</i>	32	No	Good	Canopy codominant Shaded out lower CR area. No sig defects	6-ft from FL
11	Giant sequoia <i>Sequoiadendron giganteum</i>	23	No	Good	Canopy codominant. Some competitive stress, reduced vigor	9-ft from FL
12	Giant sequoia <i>Sequoiadendron giganteum</i>	32	No	Good	Canopy codominant Shaded out lower CR area. No sig defects	7-ft from FL
13	Giant sequoia <i>Sequoiadendron giganteum</i>	37	No	Good	Canopy codominant Shaded out lower CR area. No sig defects	11-ft from FL
14	Giant sequoia <i>Sequoiadendron giganteum</i>	33	No	Good	Canopy codominant	2-ft from FL
15	Giant sequoia <i>Sequoiadendron giganteum</i>	32	No	Good	Canopy codominant Shaded out lower CR area. No sig defects. Some root girdling	6-ft from FL. 3-ft from Conc pad. Asphalt damage
16	Giant sequoia <i>Sequoiadendron giganteum</i>	32	No	Good	Canopy codominant Shaded out lower CR area. No sig defects	at FL Damaging fence
17	Japanese maple <i>Acer palmatum</i> cultivar	11	No	Good/Fair	Weak union at main crotch, but no sig separation evident	4-ft from paved patio
18	Japanese maple <i>Acer palmatum</i> cultivar	10	No	Good/Fair	Some damage and minor decay in basal area. Vigor still good	4-ft from paved patio
19	Japanese maple <i>Acer palmatum</i> cultivar	9	No	Good	Full wide CR Adequate vigor despite heavy shading. No other defects	5-ft from paved patio

ID	Tree Species	DBH RPZ	INV	Condition	Tree Condition Notes	Location Notes
20	Giant sequoia <i>Sequoiadendron giganteum</i>	52	No	Good	Full wide CR. Slight lack of vigor due to location constrained by paving	Bump out. 6-ft av distance to curb on 3 sides
21	Giant sequoia <i>Sequoiadendron giganteum</i>	28	No	Good	Group with shared CR space. No defects	4-ft to curb of internal d/way
22	Giant sequoia <i>Sequoiadendron giganteum</i>	31	No	Fair	Group with shared CR space. Leader dieback of approx. 15-ft. Reduced vitality, competitive stress	Planter area.
23	Giant sequoia <i>Sequoiadendron giganteum</i>	38	No	Good	Group with shared CR space. Heavy SR and damage to adj paving	Planter area. 6-ft from wall
24	Giant sequoia <i>Sequoiadendron giganteum</i>	43	No	Good	Group with shared CR space. Heavy SR and damage to adj paving	Planter area. 4-ft from wall
25	Giant sequoia <i>Sequoiadendron giganteum</i>	31	No	Good	Canopy codominant trees, 4-ft apart. SR heavy to 20-ft	Planter area. 4-ft from wall
26	Giant sequoia <i>Sequoiadendron giganteum</i>	50	No	Good	Canopy codominant trees, 4-ft apart. SR heavy to 20-ft	Planter area. 3-ft from wall
27	Katsura tree <i>Cercidiphyllum japonicum</i>	21	No	Good	Wide spreading CR at end of row. Dense CR	Steep landscape bank above PL. 5-ft to PL curb
28	Katsura tree <i>Cercidiphyllum japonicum</i>	14	No	Good	Spreading CR with multiple leaders	Steep landscape bank above PL. 5-ft to PL curb
29	Katsura tree <i>Cercidiphyllum japonicum</i>	11	No	Good	CR shouldered by adj trees. Adequate vigor	Steep landscape bank above PL. 5-ft to PL curb
30	Katsura tree <i>Cercidiphyllum japonicum</i>	10	No	Good/Fair	Some reduced vigor due to locational constraints	Steep landscape bank above PL. 6-ft to PL curb
31	Katsura tree <i>Cercidiphyllum japonicum</i>	10	No	Good/Fair	Some reduced vigor due to locational constraints. Minor CR dieback	Steep landscape bank above PL. 6-ft to PL curb
32	Katsura tree <i>Cercidiphyllum japonicum</i>	11	No	Good	Good CR development	Steep landscape bank above PL. 6-ft to PL curb
33	Katsura tree <i>Cercidiphyllum japonicum</i>	8	No	Good/Fair	Some reduced vigor due to locational constraints	Steep landscape bank above PL. 6-ft to PL curb
34	Katsura tree <i>Cercidiphyllum japonicum</i>	9	No	Good/Fair	Some reduced vigor due to locational constraints	Steep landscape bank above PL. 6-ft to PL curb
35	Katsura tree <i>Cercidiphyllum japonicum</i>	12	No	Good/Fair	Reduced vigor due to locational constraints. Multiple leaders from ground	Steep landscape bank above PL. 6-ft to PL curb
36	Katsura tree <i>Cercidiphyllum japonicum</i>	10	No	Good/Fair	Some reduced vigor due to locational constraints	Steep landscape bank above PL. 6-ft to PL curb
37	Katsura tree <i>Cercidiphyllum japonicum</i>	11	No	Good/Fair	Some reduced vigor due to locational constraints. Reduced CR size	Steep landscape bank above PL. 6-ft to PL curb
38	Katsura tree <i>Cercidiphyllum japonicum</i>	15	No	Good	Tree has found additional rooting area from bump out	Steep landscape bank above PL. 5-ft to PL curb

ID	Tree Species	DBH RPZ	INV	Condition	Tree Condition Notes	Location Notes
39	Katsura tree <i>Cercidiphyllum japonicum</i>	39	N	Good	Unconstrained rooting area. SR very heavy to 35-ft. Some root girdling	4-ft to s/wk. Sidewalk damage and repairs
40	Paperbark maple <i>Acer griseum</i>	4	N	Good	Young tree. Adequate vigor	6-ft from s/wk
41	Paperbark maple <i>Acer griseum</i>	4	N	Good/Fair	Young tree. Sunscald damage to lower stem	6-ft from s/wk
42	Paperbark maple <i>Acer griseum</i>	3	N	Good/Fair	Young tree. Sunscald damage to lower stem	6-ft from s/wk
43	Paperbark maple <i>Acer griseum</i>	4	N	Fair/Good	Young tree. Sunscald damage to lower stem. Damage to structural roots	6-ft from s/wk
44	Norway Maple <i>Acer platanoides</i>	10	YES	Good	Semi mature. Some root girdling. Heavy SR to 10-ft	Lawn area
47	Japanese maple <i>Acer palmatum</i> cultivar	4	N	Good/Fair	CR partly suppressed. Sunscald damage lower stem	6-ft from conc path
48	Katsura tree <i>Cercidiphyllum japonicum</i>	10	N	Good	Asymmetric CR. Heavy SR	Planter bed area
49	Katsura tree <i>Cercidiphyllum japonicum</i>	10	N	Good/Fair	Thin CR form. Partially suppressed. Heavy SR	Planter bed area
50	Katsura tree <i>Cercidiphyllum japonicum</i>	18	N	Good	SR heavy to 30-ft along BLDG elevation. Low branching from 3-ft bole	5-ft from BLDG
51	Japanese maple <i>Acer palmatum</i> cultivar	5	N	Good	Strong CR a edge of tree group	6-ft from conc path
52	Katsura tree <i>Cercidiphyllum japonicum</i>	14	N	Good	Narrow upright CR. Heavy SR	Planter bed area
53	Katsura tree <i>Cercidiphyllum japonicum</i>	12	N	Good/Fair	Heavy SR evident. Minor CR dieback	5-ft from BLDG
54	Japanese maple <i>Acer palmatum</i> cultivar	4	N	Good/Fair	Twin stems from 1-ft. Adequate vigor for shaded CR	6-ft from conc path
55	Katsura tree <i>Cercidiphyllum japonicum</i>	15	N	Good	Twin stems from 4-ft. Heavy SR	5-ft from BLDG

Definitions/Abbreviations – **BLDG**: Building; **CR**: Crown of tree; **DBH/RPZ**: (DBH - Stem Diameter in inches at 4.5-ft from grade; RPZ Standard root protection zone radius in feet); **FL**: Fence Line; **ID** Arborist survey number; **CRR**: Crown radius; **LCR**: Live Crown Ratio; **INV** (Yes/ No): Regionally recognized as an Invasive Species; **PL**: Parking Lot; **SR**: Surface roots

