Exhibit H: Arborist Report

THPRD Willow Creek Boardwalk Arborist Report

Date: November 14, 2023

Prepared For: Tualatin Hills Parks & Recreation Department
6220 SW 112th Avenue, Suite 100
Beaverton, OR 97008

Prepared By: Bennett Kocsis
ISA Certified Arborist No.: PN-8877A
ISA Qualified Tree Risk Assessor
Kocsisb@aks-eng.com

Site Information: Willow Creek Greenway Trail, Beaverton OR
Washington County Assessor's Map
1N 1 31AD, Portion of Tax Lot 102
1N 1 31DA, Portion of Tax Lot 12000
1N 1 32BC, Portions of Tax Lot 3001

AKS ENGINEERING & FORESTRY

12965 SW Herman Road, Suite 100
Tualatin, OR 97062
(503) 563-6151

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Attachments

Attachment A: Detailed Tree Inventory
Attachment B: Preliminary Tree Preservation and Removal Plan

Project Summary

The proposed project consists of the replacement, realignment, and widening of a portion of the existing boardwalk along the Willow Creek Greenway to adhere to Americans with Disabilities Act (ADA) safety and maintenance requirements. The project is located within a Significant Grove and no more than 75% of the total diameter inches at breast height (DBH) of non-exempt surveyed trees are proposed for removal. Therefore, the project is subject to the Tree Plan Two requirements under Beaverton Development Code 40.90.15.2.A.3.

As shown on the attached Detailed Tree Inventory and Preliminary Tree Preservation Plan, there are a total of 86 trees that were surveyed and inventoried, 52 of which are non-exempt per Beaverton Development Code (BDC) Chapter 90. There are a total of 31 non-exempt trees proposed to be removed. 18 of the 31 non-exempt trees are proposed for removal to facilitate demolition of the existing boardwalk and construction of the new boardwalk. In addition to the 18 trees proposed for removal to facilitate the boardwalk replacement, THPRD is proposing to remove an additional 13 non-exempt Oregon Ash (*Fraxinus latifolia*) trees to mitigate the threat of the Emerald Ash Borer. The removal of the Oregon Ash trees is a regional agency coordinated pro-active mitigation measure to slow the spread of this pest. Trees removed will be disposed off-site and replaced at a 1:1 ratio with Willow (*Salix spp.*) per recommendation by the THPRD arborist.

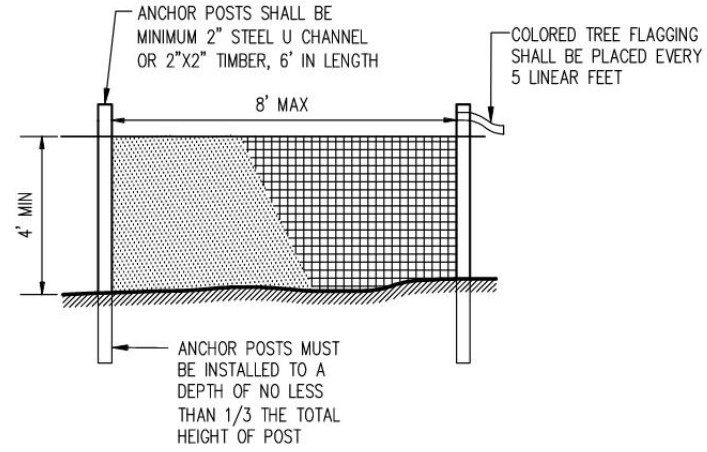
As described in BDC Chapter 60.60.15.2.C.1.b, for Residential zoning districts 25% of the DBH of non-exempt surveyed trees found on a project site must be preserved. The total DBH of non-exempt surveyed trees is 1126. The applicant is proposing to preserve 21 non-exempt surveyed trees, all of which are deciduous. The 21 non-exempt trees to be preserved will retain 36.9% of the existing non-exempt tree diameter. The 36.9% DBH being preserved is greater than the 25% requirement to be preserved under the preservation standards described above.

When removing trees, the contractor should comply with the Migratory Bird Treaty Act (MBTA) (Title 16 United States Code Ch. 7). To comply with the MBTA, the best time for tree removal is August 1 – January 31. To avoid disturbance to migratory birds, tree removal should be avoided between February 1 – April 15 (early nesting season) and April 15 – July 31 (primary nesting season).

Specifications

Tree Protection Fencing Specifications:

Protection fencing consisting of a minimum 4-foot-high orange plastic mesh fence, secured with 6-foot metal posts shall be established at the edge of the root protection zone and permissible encroachment area on the development site.



NOTES:
1. BLAZE ORANGE PLASTIC MESH FENCE FOR TREE PROTECTION DEVICE OR APPROVED EQUAL.
2. 12 GAUGE WIRE SHALL BE STRUNG BETWEEN EACH POST AND ATTACH TO THE TOP AND MIDPOINT OF EACH POST.
3. AVOID DAMAGE TO TREE ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
4. DEVICE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCE

Tree Preservation Specifications:

A. No changes shall be made to any aspect of the approved Tree Protection and Removal Plan without written consent from the Project Arborist.

B. Timeline for clearing, grading, and installation of tree protection measures: Tree protection fencing shall be installed prior to any ground disturbance work.

C. Placing materials near trees: No person may conduct any activity within the protected area of any tree designated to remain, including, but not limited to, parking equipment, placing solvents, storing building material and soil deposits, dumping concrete washout, and locating burn holes.

D. Attachments to trees during construction: No person shall attach any object to any tree designated for preservation.

E. Protective barrier: Prior to any ground disturbance by the Contractor, the Contractor:

1. Shall erect and maintain readily visible tree protection fencing along the outer edge and completely surrounding the protected area of all protected trees or groups of trees, as shown on the Tree Preservation and Removal Plans. Fences shall be constructed per the Tree Protection Fencing Specifications.

2. May be required to cover with mulch to a depth of at least 6 inches, or with plywood or similar material, over the root zone of a tree in order to protect roots from damage caused by heavy equipment.

3. Shall prohibit excavation or compacting of earth or other potentially damaging activities within the tree protection zone.

4. May be required to minimize root damage by excavation of a 2-foot deep trench at the edge of the tree protection zone to cleanly sever the roots of trees to be retained.

5. May be required to have corrective pruning performed on preserved trees in order to avoid damage from machinery or building activities. May be required to maintain trees throughout the construction period by watering and fertilizing.

6. Shall maintain the tree protection fencing in place until the Project Arborist and City authorize their removal.

7. Shall ensure that any landscaping done in the tree protection zone subsequent to the removal of the barriers shall be accomplished with light machinery or hand labor and use plant materials with compatible water requirements to the tree to be preserved and direct spray irrigation away from trunks.

F. The grade shall not be elevated or reduced within the tree protection zone without the Project Arborist's authorization.

G. If the grade adjacent to a preserved tree is raised such that it could slough or erode into the tree protection zone, it shall be permanently stabilized to prevent suffocation of the roots.

H. An impervious surface shall not be installed within the tree protection zone of any tree to be preserved without the authorization of the Project Arborist.

I. To the greatest extent practical, utility trenches shall be located outside of the tree protection zone of trees to be preserved. The Project Arborist may require that utilities be tunneled under the roots of trees to be preserved, if the Project Arborist determines that trenching would significantly reduce the chances of the trees' survival.

J. Directional felling of trees shall be used to avoid damage to trees designated for preservation.

K. The Project Arborist may require additional tree preservation measures that are consistent with tree care industry standards.

L. At the completion of construction, all trees should once again be reviewed. Land clearing and removal of adjacent trees can expose previously unseen defects and otherwise healthy trees can

be damaged during construction. At the completion of construction, the contractor should coordinate with the project arborist for a final inspection.

Root Pruning Specifications:
Encroachment into the root protection zone may be allowed with Project Arborist approval as described in the following notes:

1. Excavation in the top 24 inches of soil in the critical root zone area should begin at the excavation line that is closest to the tree.

2. The excavation should be done by hand/shovel or with a backhoe and a person with a shovel, pruning shears, and a pruning saw.

3. If done by hand, all roots 1 inch or larger should be pruned at the excavation line.

4. If done with a backhoe (most likely scenario), the operator shall start the cut at the excavation line and carefully "feel" for roots/resistance. When there is resistance, the person with the shovel shall hand dig around the roots and prune roots larger than 1 inch in diameter.

Canopy Pruning Specifications:

1. The Contractor should ensure that trimming and pruning is carried out by an accredited tree service company and should be done under the direct supervision of a Certified Arborist. All pruning and trimming should be performed in accordance with the provisions of ANSI A300.

2. Remove dead, damaged, and diseased branches so as to mitigate any potential hazards to persons or property and to prevent decay from entering the tree.

3. Not more than one-fourth of the foliage on a mature tree should be removed within a growing season.

4. The foliage throughout the tree's canopy should remain evenly distributed and balanced.

Arborist Disclosure Statement:

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the health of trees, and attempt to reduce the risk of living near trees. The Client and Jurisdiction may choose to accept or disregard the recommendations of the arborist, or seek additional advice. Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like medicine, cannot be guaranteed. Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

Neither this author nor AKS Engineering & Forestry, LLC have assumed any responsibility for liability associated with the trees on or adjacent to this site.

Post Construction Arborist Review:

At the completion of construction, this tree should once again be reviewed. Land clearing can expose previously unseen defects and otherwise healthy trees can be damaged during construction.

Please let me know if you have any questions.

Sincerely,
AKS ENGINEERING & FORESTRY, LLC

Bennett Kocsis
ISA Certified Arborist #PN-8877A
ISA Qualified Tree Risk Assessor
Member, International Society of Arboriculture
(503) 563-6151 | kocsisb@aks-eng.com

Detailed Tree Inventory for Willow Creek Boardwalk

AKS Job No. [8015-01] - Evaluation Date: 6/5/2023 - Evaluated by: BRK

	Tree #	DBH (in.)	Avg. Crown Radius (ft)	Tree Species Common Name (*Scientific name*)	Comments	Health Rating*	Structure Rating**	Remove/ Preserve****
***	10637	7	10	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[1]
	10638	11	16	Sweetgum (*Liquidambar styraciflua*)		1	1	Remove[1]
	10684	12	16	Oregon Ash (*Fraxinus latifolia*)	Some beaver damage at base	1	2	Remove[1]
***	10825	9	14	Cutleaf Birch (*Betula pendula 'Laciniata'*)	Broken top half; Cavity with decay	3	3	Remove[1]
	10836	7,17	20	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[2]
***	10837	6	0	Willow (*Salix spp.*)	Dead	3	3	Preserve
	10838	9,10	12	Willow (*Salix spp.*)		1	1	Preserve
	10840	23	40	Oregon White Oak (*Quercus garryana*)	Abnormal dead branches; Epicormic sprouting; 1-sided canopy (W)	2	1	Preserve
	10842	10	14	Oregon White Oak (*Quercus garryana*)		1	1	Preserve
***	10859	9	14	Willow (*Salix spp.*)		1	1	Preserve
***	10865	6,9	30	Willow (*Salix spp.*)	Lean (S)	1	2	Preserve
	10871	21	29	Oregon Ash (*Fraxinus latifolia*)	LINE TREE; Outgrown planter space	1	1	Remove[1]
***	10874	6,8	10	Willow (*Salix spp.*)	Abnormal dead limbs	2	1	Preserve
	12051	13	12	Ornamental Cherry (*Prunus serrulata*)	Exposed buttress roots (E)	1	1	Remove[1]
***	12052	8	3	Flowering Cherry (*Prunus serrulata*)	Dead top; In decline	3	2	Remove[1]
***	12093	8	6	Flowering Cherry (*Prunus serrulata*)		1	1	Remove[1]
	12113	6,14,14,15, 17,19	25	Oregon Ash (*Fraxinus latifolia*)	Clustered base	1	1	Remove[1]
	12143	14,14	14	Willow (*Salix spp.*)	Growing horizontal (N); Main stem dead; Epicormic limbs	3	3	Preserve
	12151	10	17	Oregon Ash (*Fraxinus latifolia*)	Lean (W); Cavity in base with decay	2	2	Remove[2]
	12152	13	19	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[2]
	12153	15	20	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[2]
	12177	17	16	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[2]
	12220	23	21	Oregon Ash (*Fraxinus latifolia*)	Dead codominant stem with decay	2	2	Preserve
	12223	14	20	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[2]
***	12312	6,6,7	12	English Hawthorn (*Crataegus monogyna*)		1	1	Remove[1]
	12337	10	19	Oregon Ash (*Fraxinus latifolia*)	1-sided canopy (N)	1	1	Remove[1]
	12344	21	35	Oregon White Oak (*Quercus garryana*)	1-sided canopy (N)	1	1	Remove[1]
***	12353	5,5	13	Cascara Buckthorn (*Frangula purshiana*)	Lean (W)	1	2	Remove[1]
	12375	26	12	Oregon Ash (*Fraxinus latifolia*)	Topped @ 20'; Epicormic stems	3	3	Remove[1]
	12378	10,12	18	Oregon White Oak (*Quercus garryana*)		1	1	Preserve
	12393	22	17	Oregon White Oak (*Quercus garryana*)		1	1	Preserve
***	12412	9	12	Oregon Ash (*Fraxinus latifolia*)	1-sided canopy (N)	1	1	Remove[1]
	12413	10	18	Willow (*Salix spp.*)	1-sided canopy (N)	1	1	Remove[1]
***	12438	6	0	Willow (*Salix spp.*)	Dead	3	3	Remove[1]
***	12439	8	6	Willow (*Salix spp.*)	Dead top; In decline	3	2	Remove[1]
***	12465	8	7	Sweetgum (*Liquidambar styraciflua*)	High canopy; Exposed following adjacent tree removal	1	2	Remove[1]
***	12469	6	12	Oregon Ash (*Fraxinus latifolia*)	High canopy; Exposed following adjacent tree removal	1	2	Remove[1]
	12473	13	11	Sweetgum (*Liquidambar styraciflua*)		1	1	Remove[1]
	12478	21	35	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[1]
	12503	10	0	Willow (*Salix spp.*)	Dead; Lean (N)	3	3	Preserve
	12525	15	12	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[1]
	12528	13	14	Willow (*Salix spp.*)	OFFSITE	1	1	Preserve
	12533	26	38	Oregon White Oak (*Quercus garryana*)	OFFSITE; Self-correcting lean (S)	1	1	Preserve
	12538	20	20	Oregon White Oak (*Quercus garryana*)	LINE TREE	1	1	Preserve
	12548	10	0	Willow (*Salix spp.*)	Dead; Broken @ 10'	3	3	Preserve

Detailed Tree Inventory for Willow Creek Boardwalk

AKS Job No. [8015-01] - Evaluation Date: 6/5/2023 - Evaluated by: BRK

	Tree #	DBH (in.)	Avg. Crown Radius (ft)	Tree Species Common Name (*Scientific name*)	Comments	Health Rating*	Structure Rating**	Remove/ Preserve****
***	12553	7	7	Willow (*Salix spp.*)		1	1	Remove[1]
	12559	7,12	17	Oregon Ash (*Fraxinus latifolia*)	Broken top; Lean (S)	2	3	Remove[2]
	12597	11	13	Willow (*Salix spp.*)	Lean (S)	1	2	Remove[1]
	12600	9,9,10	15	Oregon Ash (*Fraxinus latifolia*)	9" stem dead; High canopy; Abnormal dead branches	2	2	Remove[1]
	12604	20,20,20, 19,15,10	32	Oregon Ash (*Fraxinus latifolia*)	Cavities; Dead limbs; Clustered base	1	2	Remove[1]
	12612	6,10	18	Oregon Ash (*Fraxinus latifolia*)	Lean (S)	1	2	Remove[2]
	12613	13	9	Deador Cedar (*Cedrus deodara*)		1	1	Preserve
***	12614	9	10	Oregon Ash (*Fraxinus latifolia*)	High canopy	1	1	Remove[2]
***	12617	9	7	Sweetgum (*Liquidambar styraciflua*)		1	1	Remove[1]
	12622	20,22	40	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[2]
	12640	33,34	20	Willow (*Salix spp.*)	Broken top; Significant dead wood; In decline	3	3	Preserve
***	12646	6	10	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[1]
***	12662	6	15	Oregon Ash (*Fraxinus latifolia*)	Lean (E)	1	2	Preserve
	12663	16,18	35	Willow (*Salix spp.*)	16" stem lean (E)	1	2	Preserve
***	12732	7	10	Willow (*Salix spp.*)		1	1	Preserve
***	12735	7,9	0	Oregon Ash (*Fraxinus latifolia*)	Dead	3	3	Remove[1]
***	12740	9	0	Willow (*Salix spp.*)	Dead; Lean (S)	3	3	Preserve
***	12745	6	6	Willow (*Salix spp.*)		1	1	Preserve
***	12750	6	9	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[2]
***	12751	9	13	Sweetgum (*Liquidambar styraciflua*)		1	1	Preserve
***	12752	7	9	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[1]
	12753	17	16	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[2]
***	12754	8	13	Black Hawthorn (*Crataegus douglasii*)	Dead top; In decline	3	2	Preserve
	12755	11	14	Sweetgum (*Liquidambar styraciflua*)		1	1	Remove[1]
	12808	10	4	Flowering Cherry (*Prunus serrulata*)		1	1	Remove[1]
***	12837	3	4	Flowering Cherry (*Prunus serrulata*)		1	1	Remove[1]
***	12851	9	5	Flowering Cherry (*Prunus serrulata*)		1	1	Remove[1]
	12879	16	15	Sweetgum (*Liquidambar styraciflua*)		1	1	Preserve
***	12889	8	8	Oregon Ash (*Fraxinus latifolia*)	Some beaver damage at base; Abnormal dead branches; Epicormic sprouting	2	2	Remove[2]
***	12905	8	8	Oregon Ash (*Fraxinus latifolia*)	Some beaver damage at base; Abnormal dead branches; Epicormic sprouting	2	2	Remove[1]
***	12906	9	19	Willow (*Salix spp.*)	Lean (W)	1	2	Remove
	12911	15,16	33	Oregon Ash (*Fraxinus latifolia*)	Codominant base	1	1	Remove[2]
***	12912	6	0	Willow (*Salix spp.*)	Dead; Lean (N)	3	3	Preserve
	12920	15	13	Sweetgum (*Liquidambar styraciflua*)		1	1	Preserve
	12921	12	14	Sweetgum (*Liquidambar styraciflua*)		1	1	Preserve
	12929	16	22	Sweetgum (*Liquidambar styraciflua*)	1-sided canopy (E)	1	1	Remove[1]
	12980	14	16	Sweetgum (*Liquidambar styraciflua*)		1	1	Preserve
	13029	14	14	Norway Maple (*Acer platanoides*)	Street Tree; Some abnormal dead branches	2	1	Preserve
	13058	13	12	Norway Maple (*Acer platanoides*)	Street Tree; Exposed roots all around	1	1	Preserve
	50000	12,9	21	Oregon Ash (*Fraxinus latifolia*)	10" stem dead with large cavity; Several large leaders remain	2	3	Remove[2]
	50001	16,10	30	Oregon Ash (*Fraxinus latifolia*)		1	1	Remove[2]

Total # of Existing Trees Inventoried = 86

Total # of Existing Onsite Trees = 82

Total # of Existing Onsite Trees to be Preserved = 29

Total # of Existing Onsite Trees to be Removed = 53

Total # of Existing Non-Exempt Onsite Trees to be Removed = 30

Total # of Existing Non-Exempt Onsite Trees to be Removed for Construction = 17

Total # of Existing Non-Exempt Onsite Trees to be Removed for EAB Management = 13

Total # of Existing Line Trees = 2

Total # of Existing Line Trees to be Preserved = 1

Total # of Existing Line Trees to be Removed = 1

Total # of Existing Non-Exempt Line Trees to be Removed = 1

Total # of Existing Non-Exempt Line Trees to be Removed for Construction = 1

Total # of Existing Offsite Trees = 2

Total # of Existing Offsite Trees to be Preserved = 2

Total # of Existing Offsite Trees to be Removed = 0

***Health Rating:**

1 = Good Health - A tree that exhibits typical foliage, bark, and root characteristics, for its respective species, shows no signs of infection or infestation, and has a high level of vigor and vitality.

2 = Fair Health - A tree that exhibits some abnormal health characteristics and/or shows some signs of infection or infestation, but may be reversed or abated with supplemental treatment.

3 = Poor Health - A tree that is in significant decline, to the extent that supplemental treatment would not likely result in reversing or abating its decline.

****Structure Rating:**

1 = Good Structure - A tree that exhibits typical physical form characteristics, for its respective species, shows no signs of structural defects of the canopy, trunk, and/or root system.

2 = Fair Structure - A tree that exhibits some abnormal physical form characteristics and/or some signs of structural defects, which reduce the structural integrity of the tree, but are not indicative of imminent physical failure, and may be corrected using arboricultural abatement methods.

3 = Poor Structure - A tree that exhibits extensively abnormal physical form characteristics and/or significant structural defects that substantially reduces the structural viability of the tree, cannot feasibly be abated, and are indicative of imminent physical failure.

***** Note:**

These trees are under 10" in DBH and therefore are exempt survey trees per Beaverton Development Code Chapter 90.

******Remove:**

Remove[1] = Tree proposed for removal to facilitate demolition of the existing boardwalk and new boardwalk construction.

Remove[2] = Ash tree proposed for removal by THPRD to mitigate the threat of Emerald Ash Borer.

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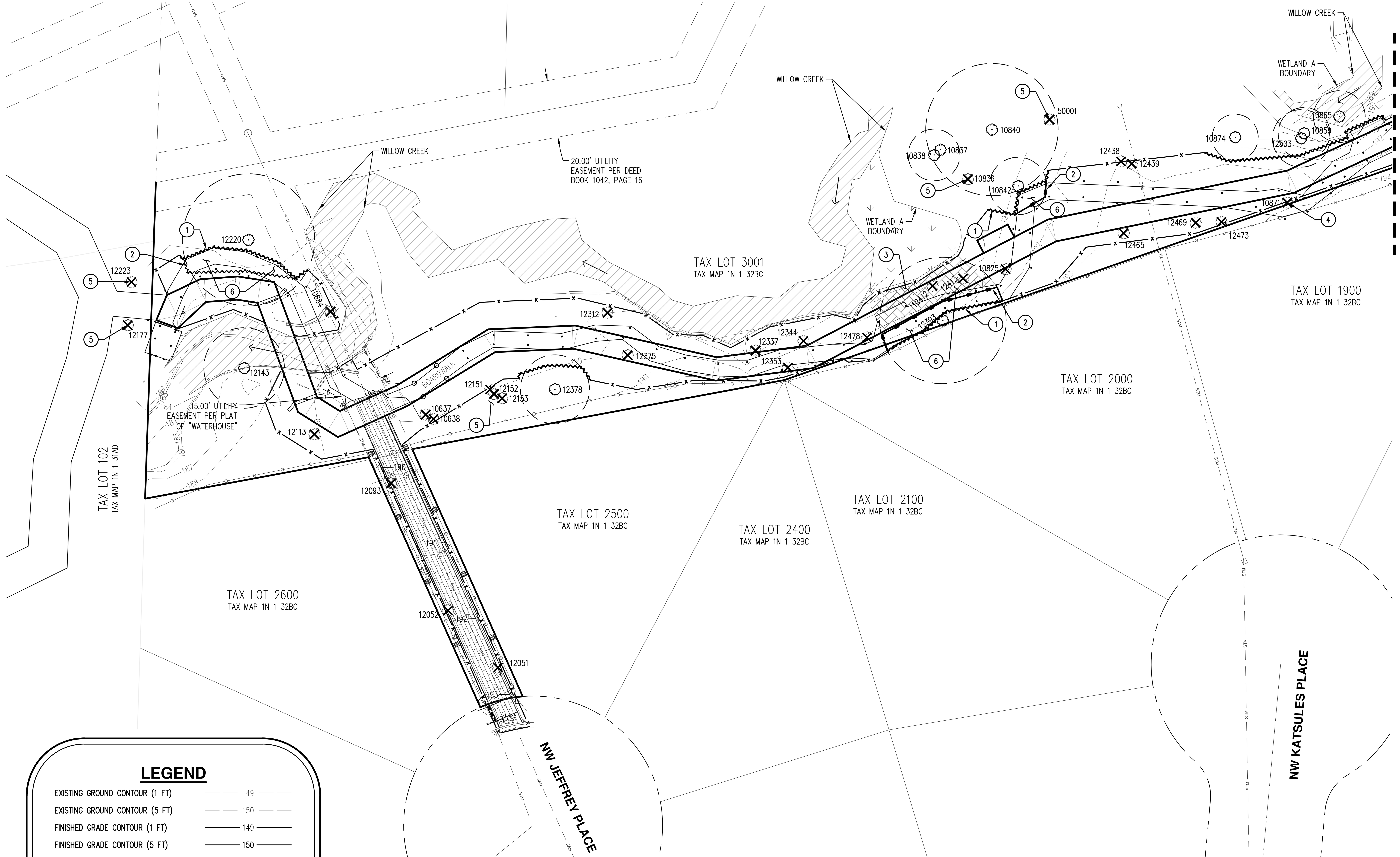
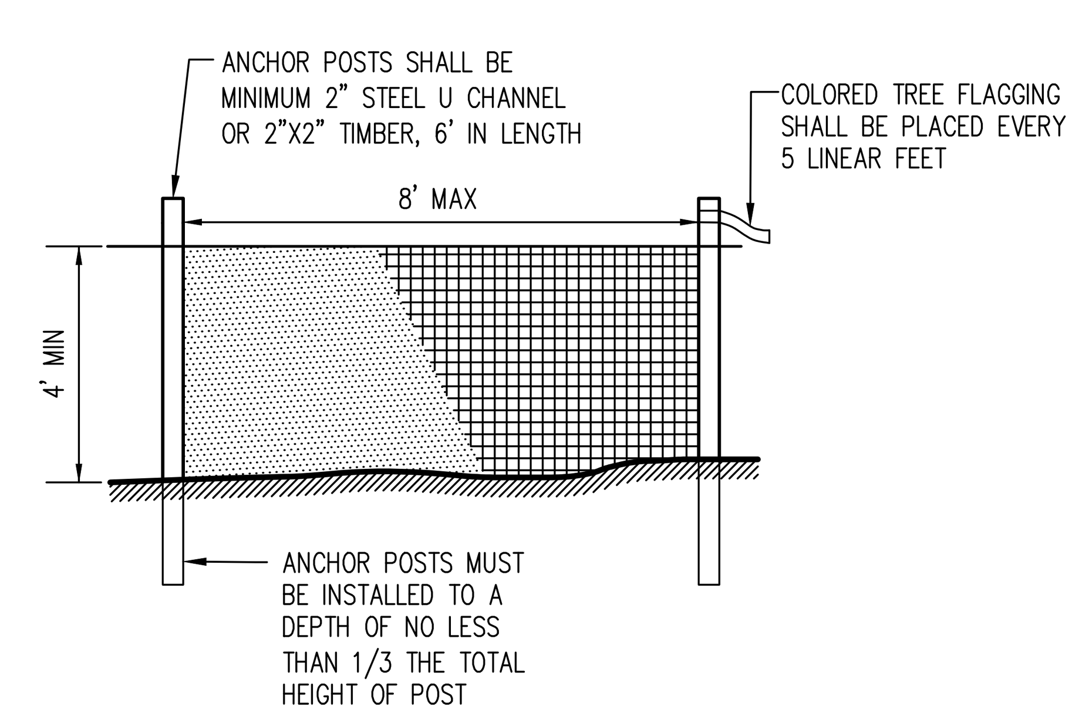
At the completion of construction, all trees should once again be reviewed. Land clearing and removal of adjacent trees can expose previously unseen defects and otherwise healthy trees can be damaged during construction.

PRELIMINARY TREE PRESERVATION AND REMOVAL PLAN
WILLOW CREEK BOARDWALK (EAST)
TUALATIN HILLS PARK & REC. DISTRICT
BEAVERTON, OREGON



LEGEND

EXISTING GROUND CONTOUR (1 FT)	— — 149 — —
EXISTING GROUND CONTOUR (5 FT)	— — 150 — —
FINISHED GRADE CONTOUR (1 FT)	—— 149 ——
FINISHED GRADE CONTOUR (5 FT)	—— 150 ——
EXISTING CONIFEROUS TREE	✳
EXISTING DECIDUOUS TREE	⊙
TREE REMOVAL	☒ ✕
TREE PROTECTION FENCE (TREE PROTECTION AREA)	〰
LOCATION TREE PROTECTION FENCE AFTER DEMOLITION IS COMPLETE (AS DENOTED BY KEYED NOTE #2)	—●●—●●—
ORANGE SEDIMENT FENCE (ALSO SERVES AS TREE PROTECTION FENCE WHERE SHOWN)	—x—x—
CONTRACTOR TO PLACE 12" THICK DEPTH OF WOOD CHIPS, OR OTHER MATERIAL AS APPROVED BY THE PROJECT ARBORIST TO PROTECT ROOT ZONES AND PREVENT SOIL COMPACTION DURING CONSTRUCTION AND DEMOLITION.	▨
ASSUMED TREE ROOT ZONE (1-FT RADIUS PER 1-IN OF DBH)	◌



NOTES:
1. BLAZE ORANGE PLASTIC MESH FENCE FOR TREE PROTECTION DEVICE OR APPROVED EQUAL.
2. 12 GAUGE WIRE SHALL BE STRUNG BETWEEN EACH POST AND ATTACH TO THE TOP AND MIDPOINT OF EACH POST.
3. AVOID DAMAGE TO TREE ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
4. DEVICE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

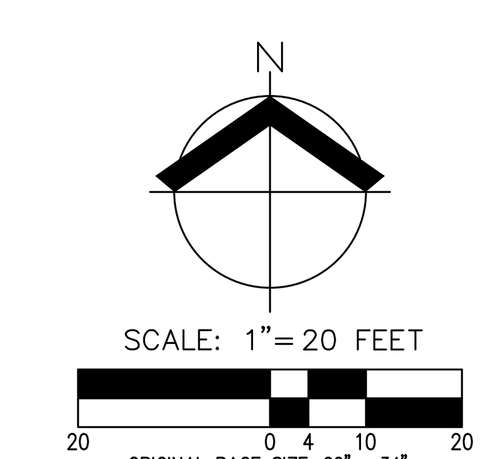
TREE PROTECTION FENCE

TREE PROTECTION KEYED NOTES:

1. LOCATION OF TREE PROTECTION FENCE DURING DEMOLITION. TREE PROTECTION FENCE TO BE ADJUSTED TO FINAL LOCATION AS SHOWN BY NOTE #2 FOLLOWING DEMOLITION AND PRIOR TO GROUND DISTURBING ACTIVITIES.
2. LOCATION OF TREE PROTECTION FENCE AFTER DEMOLITION IS COMPLETE (PRIOR TO ANY GROUND DISTURBING ACTIVITIES).
3. CONTRACTOR TO PLACE 12" THICK DEPTH OF WOOD CHIPS OR OTHER MATERIAL AS APPROVED BY THE PROJECT ARBORIST TO PROTECT ROOT ZONES AND PREVENT SOIL COMPACTION DURING CONSTRUCTION AND DEMOLITION.
4. LINE TREE REMOVAL SHALL BE COORDINATED WITH ADJACENT PROPERTY OWNER. IF TREE PRESERVATION IS DESIRED, COORDINATE WITH THE PROJECT ARBORIST FOR ADDITIONAL TREE PROTECTION MEASURES.
5. TREE REMOVAL OUTSIDE THE IMPACT AREA SHALL BE PERFORMED USING HAND TOOLS AND METHODS. TREES SHALL BE FELLED IN A MANNER TO AVOID DAMAGE TO ADJACENT TREES TO BE PRESERVED. STUMPS SHALL BE LEFT IN PLACE.
6. ARBORIST OBSERVATION REQUIRED FOR DEMOLITION/CONSTRUCTION ACTIVITIES IN THIS AREA.

GENERAL NOTES:

1. IN ADDITION TO THE REQUIRED TREE REMOVAL TO FACILITATE THE BOARDWALK REPLACEMENT, THPRD IS PROPOSING TO REMOVE AN ADDITIONAL 13 ASH TREES TO MITIGATE THE THREAT OF THE EMERALD ASH BORER. THESE ASH TREES WILL BE REPLACED WITH WHITE ALDERS.
2. SOME TREE PRUNING MAY BE REQUIRED TO FACILITATE CONSTRUCTION ACTIVITIES WITHIN THE PROJECT AREA. COORDINATE WITH PROJECT ARBORIST OF TREE PRUNING IS NECESSARY.



CERTIFIED ARBORIST
ISA
PRELIMINARY NOT FOR CONSTRUCTION
BENNETT R. KOCSIS
CERTIFICATE NUMBER: PN 8877A
EXPIRATION DATE: 12/31/2025

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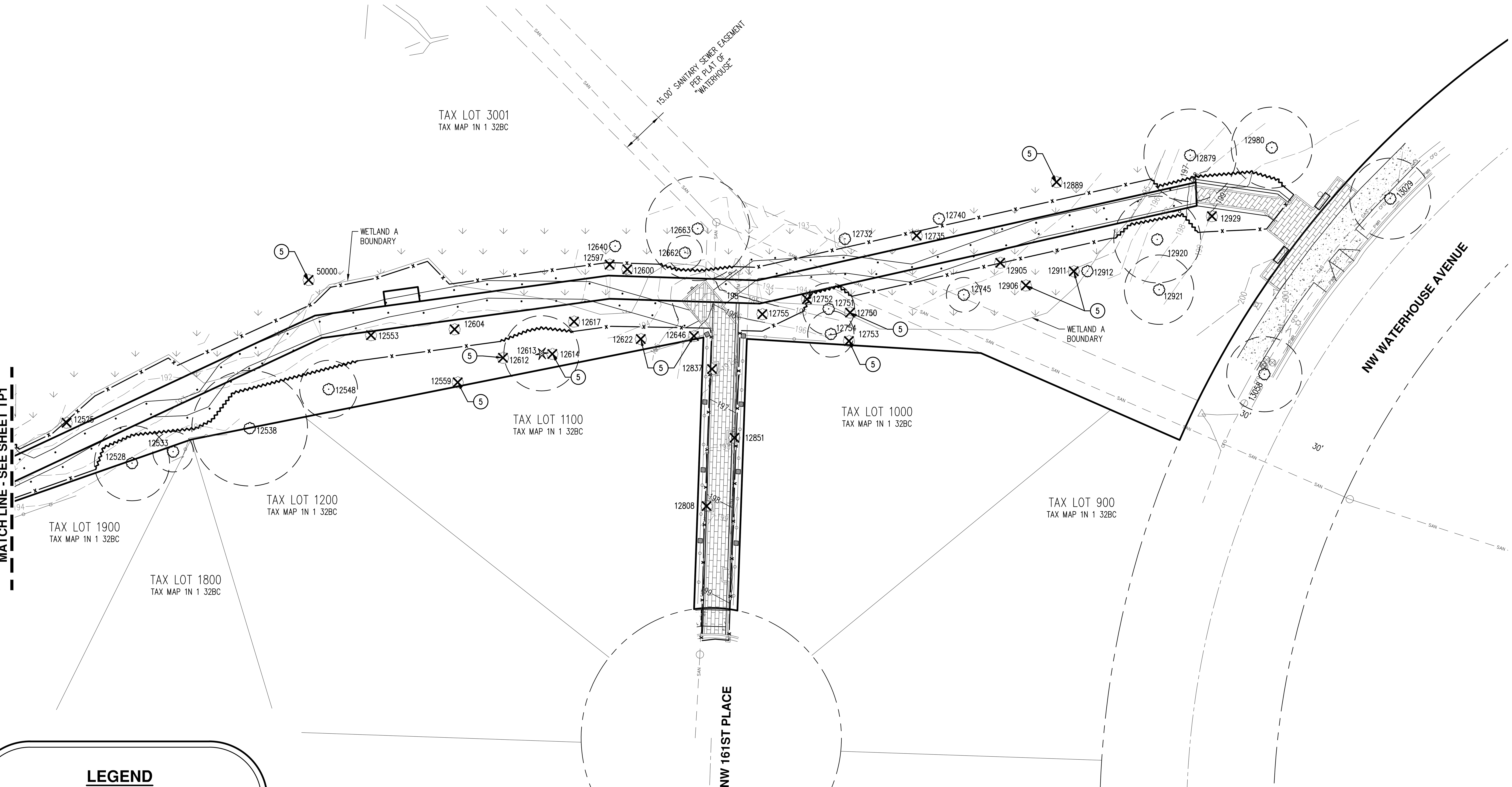
ENGINEERING · SURVEYING · NATURAL RESOURCES
FORESTRY · PLANNING · LANDSCAPE ARCHITECTURE

PRELIMINARY NOT FOR CONSTRUCTION

JOB NUMBER:	8015-01
DATE:	11/01/2023
DESIGNED BY:	BRK
DRAWN BY:	BRK
CHECKED BY:	BRB

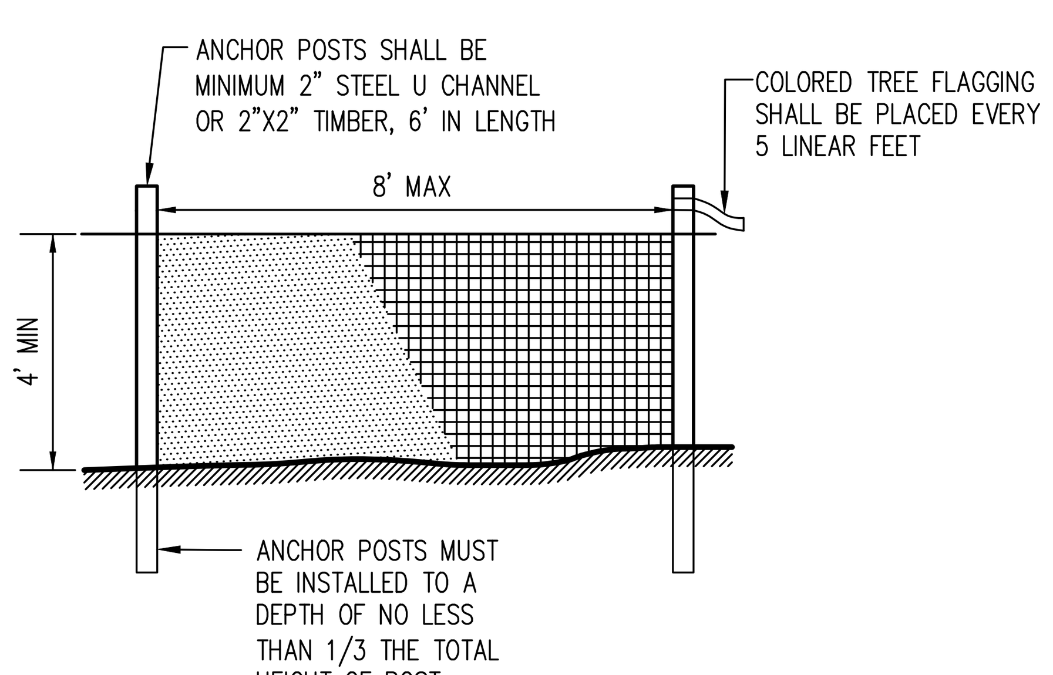
TP1

AKS DRAWING FILE: 8015-01 C030 TREE.DWG | LAYOUT: P06



LEGEND

- EXISTING GROUND CONTOUR (1 FT) — 149
- EXISTING GROUND CONTOUR (5 FT) — 150
- FINISHED GRADE CONTOUR (1 FT) — 149
- FINISHED GRADE CONTOUR (5 FT) — 150
- EXISTING CONIFEROUS TREE
- EXISTING DECIDUOUS TREE
- TREE REMOVAL
- TREE PROTECTION FENCE (TREE PROTECTION AREA)
- LOCATION TREE PROTECTION FENCE AFTER DEMOLITION IS COMPLETE (AS DENOTED BY KEYED NOTE #2)
- ORANGE SEDIMENT FENCE (ALSO SERVES AS TREE PROTECTION FENCE WHERE SHOWN)
- CONTRACTOR TO PLACE 12" THICK DEPTH OF WOOD CHIPS, OR OTHER MATERIAL AS APPROVED BY THE PROJECT ARBORIST TO PROTECT ROOT ZONES AND PREVENT SOIL COMPACTION DURING CONSTRUCTION AND DEMOLITION.
- ASSUMED TREE ROOT ZONE (1-FT RADIUS PER 1-IN OF DBH)



NOTES:
1. BLAZE ORANGE PLASTIC MESH FENCE FOR TREE PROTECTION DEVICE OR APPROVED EQUAL.
2. 12 GAUGE WIRE SHALL BE STRUNG BETWEEN EACH POST AND ATTACH TO THE TOP AND MIDPOINT OF EACH POST.
3. AVOID DAMAGE TO TREE ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS.
4. DEVICE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCE

TREE PROTECTION KEYED NOTES:

(1) LOCATION OF TREE PROTECTION FENCE DURING DEMOLITION. TREE PROTECTION FENCE TO BE ADJUSTED TO FINAL LOCATION AS SHOWN BY NOTE #2 FOLLOWING DEMOLITION AND PRIOR TO GROUND DISTURBING ACTIVITIES.

(2) LOCATION OF TREE PROTECTION FENCE AFTER DEMOLITION IS COMPLETE (PRIOR TO ANY GROUND DISTURBING ACTIVITIES).

(3) CONTRACTOR TO PLACE 12" THICK DEPTH OF WOOD CHIPS OR OTHER MATERIAL AS APPROVED BY THE PROJECT ARBORIST TO PROTECT ROOT ZONES AND PREVENT SOIL COMPACTION DURING CONSTRUCTION AND DEMOLITION.

(4) LINE TREE REMOVAL SHALL BE COORDINATED WITH ADJACENT PROPERTY OWNER. IF TREE PRESERVATION IS DESIRED, COORDINATE WITH THE PROJECT ARBORIST FOR ADDITIONAL TREE PROTECTION MEASURES.

(5) TREE REMOVAL OUTSIDE THE IMPACT AREA SHALL BE PERFORMED USING HAND TOOLS AND METHODS. TREES SHALL BE FELLED IN A MANNER TO AVOID DAMAGE TO ADJACENT TREES TO BE PRESERVED. STUMPS SHALL BE LEFT IN PLACE.

(6) ARBORIST OBSERVATION REQUIRED FOR DEMOLITION/CONSTRUCTION ACTIVITIES IN THIS AREA.

GENERAL NOTES:

1. IN ADDITION TO THE REQUIRED TREE REMOVAL TO FACILITATE THE BOARDWALK REPLACEMENT, THPRD IS PROPOSING TO REMOVE AN ADDITIONAL 13 ASH TREES TO MITIGATE THE THREAT OF THE EMERALD ASH BORER. THESE ASH TREES WILL BE REPLACED WITH WHITE ALDERS.
2. SOME TREE PRUNING MAY BE REQUIRED TO FACILITATE CONSTRUCTION ACTIVITIES WITHIN THE PROJECT AREA. COORDINATE WITH PROJECT ARBORIST OF TREE PRUNING IS NECESSARY.

CERTIFIED ARBORIST
ISA®
PRELIMINARY NOT FOR CONSTRUCTION
BENNETT R. KOCSIS
CERTIFICATE NUMBER: PN 8877A
EXPIRATION DATE: 12/31/2025

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ENGINEERING · SURVEYING · NATURAL RESOURCES
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PRELIMINARY TREE PRESERVATION AND REMOVAL PLAN
WILLOW CREEK BOARDWALK (EAST)
TUALATIN HILLS PARK & REC. DISTRICT
BEAVERTON, OREGON

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JOB NUMBER:	8015-01
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TP2