



SOUND URBAN FORESTRY

Appraisals, Planning, Urban Landscape Design and Management

City of Tumwater Operations and Maintenance Facility

1500 79th Avenue SE

Tumwater, Washington 98501

Tree Protection Plan

Prepared for: City of Tumwater, Don Carney, Capital Projects Manager

Prepared by: Sound Urban Forestry, Kevin McFarland, Consulting Urban Forester
City of Tumwater Tree Protection Professional

Date: 12/5/2023

This report has been developed as part of the proposed 6.67-acre City of Tumwater Operations and Maintenance Facility at project at 1500 79th Ave SE, in Tumwater, Washington. This plan will satisfy the requirements as specified by the City's Protection of Trees and Vegetation Ordinance (TMC 16.08) and Development Guidelines and Standards.

I. Overall Site & Vegetation Description

The site was previously cleared and developed as an equestrian facility. A large stable and outdoor arena are all that remain. The majority of the parcel is open field grass with some Scotch broom and Himalayan blackberry. There are scattered areas of volunteer and planted trees.

II. Inventory of Trees

A 100% inventory of all within the parcel was conducted on November 16, 2023. This information is presented in the table below. Trees within the adjoining ROW were previously surveyed but those within the parcel were not. The approximate locations are indicated on the included aerial. Trees that are marked with an asterisk do not count towards tree retention calculations due to condition or species (TMC 16.08.070.R1) or the fact that they are off-site.

Table 1. Inventory of Trees within Property

ID	Species	DBH	Condition	Comments
*A	Black Cottonwood	2-10"	Fair to good	Approximately 72 young cottonwood within old outdoor arena. Many have been topped.
*1	Western White Pine	30"	Poor	Multi-top, overall poor structure.
2	Western White Pine	18"	Fair	
3	Western White Pine	28"	Fair	
4	Western White Pine	30"	Fair	
5	Western White Pine	28"	Fair	
*6	Western White Pine	31"	Poor	Decayed trunk with open cavities.
7	Western White Pine	30"	Fair	
8	Western White Pine	26"	Fair	
*9	Big Leaf Maple	15"	Poor	Previously cut at 5' above grade. Resprout with multiple stems.
*10	Cottonwood	5"	Fair	
*11	Cottonwood	8"	Fair	
*12	Cottonwood	4"	Fair	
*13	Cottonwood	11"	Fair	Multi-stem.
*14	Cottonwood	4"	Fair	
*15	Cottonwood	3"	Fair	
*16	Cottonwood	6"	Fair	
*17-26	White Birch	Avg. 15"	Fair to good	Off-site.
27	Kwanzan Cherry	14"	Fair	
28	Kwanzan Cherry	18"	Fair	Partially pruned for overhead utility clearance.

ID	Species	DBH	Condition	Comments
*29	Kwanzan Cherry	14"	Poor	Overall poor structure, root sprouts.
*30	Kwanzan Cherry	12"	Poor	Overall poor structure, root sprouts.
31	Kwanzan Cherry	16"	Fair	Partially pruned for overhead utility clearance.
*32	Western White Pine	28"	Poor	Topped for overhead utility clearance, overall poor structure.
*33	Western White Pine	20"	Poor	Topped for overhead utility clearance, overall poor structure.
*34	Western White Pine	26"	Poor	Topped for overhead utility clearance, overall poor structure.
*35	Western White Pine	18"	Dead	
*36	Western White Pine	22"	Poor	Topped for overhead utility clearance, overall poor structure.
*37	Western White Pine	26"	Poor	Topped for overhead utility clearance, overall poor structure.
*38	Western White Pine	25"	Poor	Topped for overhead utility clearance, overall poor structure.
*39	Western White Pine	26"	Poor	Topped for overhead utility clearance, overall poor structure.
*40	Western White Pine	28"	Poor	Topped for overhead utility clearance, overall poor structure.
*41	Western White Pine	26"	Poor	Topped for overhead utility clearance, overall poor structure.

Landmark Trees

I found no trees within the site that would be considered specimen or 'Landmark' trees.

Off-Site Trees

In addition to the birch trees along Trails End Drive, there are several young, 10-12" Douglas firs located near the northwest corner of the property. These trees will not be impacted by the project.

III. Tree Retention Calculations

All trees within the site are to be removed. Only the birch street trees along Trails End Drive (#17-26) will be retained.

Table 4. Summary of Tree Retention Calculations

Gross Acreage	6.67-acres
Buildable Area	6.67-acres
Total Trees Within Site (Table 1)	9 Trees
20% Tree Retention	2 Trees
12 Trees/ Acre Retention	*80 Trees
Proposed Tree Retention	0 Trees
Shortfall on Required Retention	80 Trees
Required Replanting (1:1)	80 Trees

*This is the greater amount and therefore required by TMC

IV. Replanting

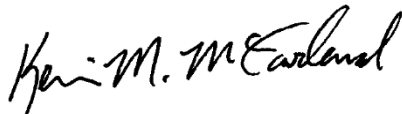
This project falls short of the minimum retention by 80 trees. Replanting may be required by the City to be within a tree protection open space that comprises 5% of the buildable area or .43-acres.

V. Tree Protection

I am recommending tree protection fencing be installed around the ten birch trees along Trails End Drive. The fencing will:

- Meet the standards of the City of Tumwater;
- Be installed as shown prior to any site work;
- Remain in place the entire duration of the project. If the fencing needs to be temporarily moved, I will be contacted at least 48 hours in advance to review with the contractor. No equipment, supplies or material will be allowed within the fenced areas.

Professionally Submitted,



Kevin M. McFarland, Member
ISA Certified Arborist PN-0373 & ISA Tree Risk Assessment Qualified
Sound Urban Forestry, LLC

Locations of Inventoried Trees

