



**CITY OF  
TUMWATER  
TREE BOARD  
MEETING AGENDA**

**Online via Zoom and In Person at  
Tumwater City Hall, Sunset Room, 555  
Israel Rd. SW, Tumwater, WA 98501**

**Monday, July 08, 2024  
7:00 PM**

1. Call to Order
2. Roll Call
3. Changes to Agenda
4. Approval of Minutes
  - [a.](#) May 13, 2024 Tree Board Meeting Minutes
5. Tree Board Member Reports
6. Coordinator's Report
7. Public Comment
- [8.](#) Draft urban forester job description
- [9.](#) Case study of current Protection of Trees and Vegetation code (TMC 16.08) implementation
- [10.](#) Summer field trip
11. Next Meeting Date - 08/12/2024
12. Adjourn

**Meeting Information**

The public are welcome to attend in person, by telephone or online via Zoom.

**Watch Online**

[https://us02web.zoom.us/webinar/register/WN\\_RuLUKm9sS\\_a1ees43YxX2w](https://us02web.zoom.us/webinar/register/WN_RuLUKm9sS_a1ees43YxX2w)

**Listen by Telephone**

Call (253) 215-8782, listen for the prompts and enter the Webinar ID 827 5078 1914 and Passcode 023838.

**Public Comment**

The public is invited to attend the hearing and offer comment. The public may register in advance for this webinar to provide comment:

[https://us02web.zoom.us/webinar/register/WN\\_RuLUKm9sS\\_a1ees43YxX2w](https://us02web.zoom.us/webinar/register/WN_RuLUKm9sS_a1ees43YxX2w)

After registering, you will receive a confirmation email containing information about joining the webinar.

The public may also submit comments prior to the meeting by sending an email to:

[AJonesWood@ci.tumwater.wa.us](mailto:AJonesWood@ci.tumwater.wa.us). Please send the comments by 1:00 p.m. on the date of the meeting.

Comments are submitted directly to the Commission/Board Members and will not be read individually into the record of the meeting.

If you have any questions, please contact Sustainability Coordinator Alyssa Jones Wood at (360) 754-4140 or [AJonesWood@ci.tumwater.wa.us](mailto:AJonesWood@ci.tumwater.wa.us).

### **Post Meeting**

Audio of the meeting will be recorded and later available by request, please email [CityClerk@ci.tumwater.wa.us](mailto:CityClerk@ci.tumwater.wa.us)

### **Accommodations**

The City of Tumwater takes pride in ensuring that people with disabilities are able to take part in, and benefit from, the range of public programs, services, and activities offered by the City. To request an accommodation or alternate format of communication, please contact the City Clerk by calling (360) 252-5488 or email [CityClerk@ci.tumwater.wa.us](mailto:CityClerk@ci.tumwater.wa.us). For vision or hearing impaired services, please contact the Washington State Relay Services at 7-1-1 or 1-(800)-833-6384. To contact the City's ADA Coordinator directly, call (360) 754-4129 or email [ADACoordinator@ci.tumwater.wa.us](mailto:ADACoordinator@ci.tumwater.wa.us).

### **What is the Tree Board?**

The Tumwater Tree Board is a citizen advisory board that is appointed by and advisory to the City Council on urban forestry issues, including drafting and revising a comprehensive tree protection plan or ordinance, or any other tree matter. Actions by the Tree Board are not final decisions; they are Board recommendations to the City Council who must ultimately make the final decision. If you have any questions or suggestions on ways the Tree Board can serve you better, please contact the Community Development Department at (360) 754-4180.

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**CONVENE:** 7:00 p.m.

**PRESENT:** Chair Trent Grantham and Boardmembers Brent Chapman, Michael Jackson, Tanya Nozawa, Hannah Ohman, and Jim Sedore.

Excused: Brodrick Coval,

Staff: Sustainability Coordinator Alyssa Jones Wood and Water Resources Specialist Grant Gilmore.

**CHANGES TO AGENDA:** There were no changes to the agenda.

**APPROVAL OF MINUTES:  
JANUARY 8, 2024 &  
MARCH 11, 2024:**

*Boardmember Jim Sedore arrived at the meeting.*

**MOTION:** Chair Grantham moved, seconded by Boardmember Jackson, to approve the minutes of January 8, 2024 and March 11, 2024 as published. A voice vote approved the motion unanimously.

**TREE BOARD MEMBER REPORTS:** There were no reports.

**COORDINATOR'S REPORT:** Specialist Gilmore briefed members on changes to strategies for planting plans in several locations throughout the City.

Initially, the City considered three planting sites last season located off Israel Road, Palermo wetland, and the golf course swale. Over the year, staff prioritized some of the City's restoration events. Throughout the year, staff has been working with the Water Resource Inventory Area (WRIA) 13 Lead Entity to improve riparian corridors. Subsequently, staff considered planting opportunities across the City to implement a prioritized planting initiative. The golf course swale is a challenging site with limited space between the railroad fence and the swale. Following consultation with golf course staff and Parks and Recreation management, staff identified other suitable sites to focus on riparian habitat, corridor restoration, and widening buffers along critical areas within the golf course.

Staff completed a full site assessment and identified a dozen potential planting sites with several located along the Palermo wetland on the side of the golf course. The site is conducive for planting a protective layer for the wetland.

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Several other sites are located at the golf course; however, plantings must meet specific requirements. Four sites were identified along the Deschutes River with approval by the Parks and Recreation Department. Staff is developing a formal planting plan for all the locations over the next several months in coordination with golf course staff to identify specific native species. The plan will be presented to the Board for review and feedback.

The focus is to maximize the City's planting potential within critical areas meeting standards for certification by the golf course under the Salmon Safe Certification program.

The Israel Road site is an ideal site for developing a planting plan. Some challenges of the site are identifying the stormwater design criteria and the maintenance component of the design to determine whether additional plantings might increase demands on maintenance of the pond. Staff plans to initiate work on the project during the summer. By end of summer and beginning of fall, up to six planting plans would be completed and vetted by other departments and ready for review. At that time, staff will consider resource capacity to organize events and initiate plantings over the winter.

Specialist Gilmore shared information on work between the City and the Tumwater School District. Last year, the City launched in partnership with the school district, the Forest and Stream Ecology Program. Some Boardmembers participated. Additional efforts are planned this year since the first event was so successful.

A new program with the school district is a pilot program called the YES Program. The Forest and Stream Ecology Program is an OSPI-accredited program in partnership with the school district, New Market Skills Center, Pacific Education Institute, and other community members within the forest practices and ecological practices industry. A new program, Water Resources and Management Program, is a similar format offering five weeks of accreditation with heavy emphasis on watershed dynamics and how trees respire and ways to focus and prioritize restoration plans within in a watershed. Students will learn about water resource management, forest practices, and ecological management.

Through mutual work with the community over the last year, the need for a consistent restoration effort was identified as a need to enable the community to participate. Approximately five months ago, the City sponsored a Second Saturday Restoration Event series focused on restoration at Sapp Road Park. The project will eventually result in a large restoration event with the Parks and Recreation Department and students from the University of Washington and others. Over the last five



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months, volunteers have removed thousands of weed barriers installed approximately 20 years ago, which has compromised the entire understory of the forest canopy. Volunteers have removed weed barrier and trimmed low tree limbs to enable planting of vegetation. Some trees are no longer healthy will be removed and serve as log debris in the forest as a source of nitrogen benefits and nurse logs. The restoration plan for the park will include different features. The park is 11.7 acres in size with Percival Creek running through the park. The riparian corridor within the park is compromised because of the abundance of reed canary grass. By the end of the summer, all student research (fish habitat and riparian restoration with a focus on beavers) will be completed on the site and shared with the Board.

Specialist Gilmore described the location of Sapp Road Park, which is where Percival Creek intersects Sapp Road. The park provides parking and access to a trail along the east side of the park and the site of restoration activities. The park plays an important role in the function and health of the small subbasin within the watershed. Sapp Road Park was historically grazed by cattle with no trees on the site 20 years ago except for one large cedar tree. Over the years as trees matured, the weed barrier created much damage to the understory and to the trees.

Boardmember Chapman suggested adding the park to the Board's summer field trip.

Specialist Gilmore added that the park is predominately critical areas located in a sensitive riparian corridor with salmon. The goal is to restore the degraded wetland and riparian corridor to a functional vegetative biodiversity. An area within the wetland unit is perfectly suitable once water levels are increased to relocate Oregon spotted frogs to the park from other areas in the City. The goal is increasing frog habitat. The park serves as a learning lab. Staff is working with the school district to develop some learning initiatives around the park. The park is one of the sites forest and ecology students use for restoration activities.

Specialist Gilmore offered to provide a tour to Boardmembers of the park.

Boardmember Chapman conveyed appreciation that the Israel Road project is a high priority as the site is of high visibility to the traveling public. Specialist Gilmore explained how the Water Resources and Sustainability Department is a new department in terms of the history of the City. Many of the departments across the City are becoming acquainted with the new department and its capacity and skill sets. Relationships are developing between employees within different departments with the new department assisting in promoting coordination of projects across departments. It is important that planting projects are maintained and managed for several years to ensure sustainability of the

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plantings.

Coordinator Jones Wood reviewed changes to the Board's meeting schedule and the deferral of several agenda items. She encouraged members to offer site recommendations for the field trip.

Boardmember Chapman suggested adding the site of the new Operations and Maintenance Facility. The site includes a Garry oak tree. He recommended receiving information on facility and landscaping plans prior to the field trip.

Boardmember Sedore asked about the status of the recommended tree list. Coordinator Jones Wood said the list is part of the tree code update. Boardmember Sedore also participated in the four-hour principles of urban forestry training with Operations staff. During the training, Operations staff shared information about trees that pose difficulty, such as planting too close to City infrastructure, such as hydrants or utility boxes or hedges that create interference for antennas or telemetry for utility systems. She met with different crews from the Operations Department and requested feedback on the street tree list. She has met and has scheduled meetings with several crew leads in conjunction with planning staff. She has also outreached with the Department of Natural Resources (DNR) Community and Urban Forestry staff to receive feedback on the proposed street tree list. An improved and likely shorter list will be presented to the Board in August.

Boardmember Sedore commented that one issue is effectively marketing the street tree list because the majority of trees in Tumwater are located on private property. Coordinator Jones Wood noted that often even those trees desired by the City are often planted incorrectly by homeowners who desire to hide utility boxes or hydrants. Some of the proposed code amendments address City access to public infrastructure.

Coordinator Jones Wood reported she contracted DNR to obtain information about the Sterling Award.

Boardmember Chapman reported the Sterling Award was created by the Arbor Day Foundation to provide added incentive for communities to continue to diversify their efforts in caring for their local community forest. Coordinator Jones Wood advised that she plans to provide additional information on the award at the Board's next meeting.

**NON-  
REGULATORY  
INCENTIVES AND  
PROGRAMS:**

The City received a grant from the U.S. Forest Service. The grants are from the River Network as a pass through grant, which requires the City to meet match waiver requirements. The match waiver requires the project to benefit disadvantaged communities. The original narrative in the grant application depicted the project as providing extra incentives to

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low- or moderate-income households. However, the narrative did not meet the requirements with the grant requiring the City to use federal map tools to determine geographic areas where benefits and incentives would be offered. The City has access to the State Environmental Health Disparities Map that identifies lower air quality areas in the City because of I-5. However, the U.S. Forest Service did not recognize the state map and required staff to use a series of other tools. Because of efforts with the Forest Service and the River Network, the orange area of the map is the location eligible for application of the funds. The area includes the Olympia Regional Airport. A list of incentives was drafted for the grant application. Some of the incentives provided by the program include trees, tree health assessments by the City's urban forester (up to 25 a year), and street tree trimming services. Up to 50% of the urban forester's salary is covered by the grant for work performed in disadvantaged areas.

Boardmember Chapman commented on the number of impressive incentives and projects in progress in the City; however, he is unsure whether the community is aware of all efforts. He asked whether the plan includes outreach to the community to communicate efforts or collaborating with the Communications Department to publicize activities in the City. Coordinator Jones Wood advised that on May 28, 2024 she is scheduled to brief the City Council during a work session on an update of the Urban Forestry Management Plan, which includes the Tree Inventory and Maintenance Plan and an update on the grant. Based on the U.S. Forest Service acceptance of the revised application, staff will proceed with the grant agreement. After the agreement is executed, more information will be released to the community about the program. The urban forester will have approximately one year before the launch of the incentive programs. The grant includes funds for door hangers and mailers in the targeted area to announce the availability of the incentives.

Boardmember Sedore said he understands that much of the efforts will reach the underserved or low-income residents; however, it appears that most of the new low-income housing (apartments) in Tumwater do not have any associated land to plant trees. He agreed with the value of plants and trees around low-income housing complexes; however, residents have no power or influence to plant and maintain a tree in those types of developments. He asked whether there has been any consideration in terms of creating affordable housing communities to include open space around the complexes. Coordinator Jones Wood said apartment complexes are required to allocate open space for stormwater facilities or multi-use areas.

Chair Grantham added that the open space requirement is approximately 10% to 15% of the total area. The open space must be located within the property's boundaries.

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Members and staff discussed the new apartment complex located off Tyee Drive and placement of the structure so close to the road. Another new development is scheduled north of Tumwater Boulevard. Apparently, the development will include more open space. An existing urban forest could be protected. Boardmember Sedore said he reviewed the public hearing on the Yorkshire Apartments project comprised of a four-story mini storage facility that will be separated from Tumwater Boulevard by an existing heavily forested strip of land currently owned by the City as unopened right-of-way. The forested strip will effectively buffer the mini storage facility and the remainder of the project from Tumwater Boulevard. Project bulldozers are on the site with signs posted advising of trucks entering the roadway.

Coordinator Jones Wood advised that she would follow up with staff to obtain more information about the development.

Coordinator Jones Wood announced an open house on May 29, 2024 at City Hall for the Housing Element of the Tumwater Comprehensive Plan update. The open house will feature multiple stations featuring information on the City's future housing allocation for all income levels. The Community Development Department is hosting the open house with an accompanying online open house for a two-week period. A Climate Change Element Open House is scheduled on August 14, 2024.

**PUBLIC  
COMMENT:**

There were no public comments.

**ARBOR DAY  
DEBRIEF:**

Members and staff reviewed the outcome of the recent Arbor Day celebration and tree giveaway. The dogwood tree was a popular choice this year. Handout materials and posters were popular items although it appears fewer children attended this year's event. One member suggested the City should consider planting different species of trees that are featured during the Arbor Day tree giveaway to serve as examples for the public when considering selection of a specific tree. Members addressed the possibility of diversifying the type of giveaway plants, such as adding groundcover for those residents who lack space for trees. This year's addition of vine maple trees was a popular addition. All trees and seeds were distributed during the event. The budget request for Arbor Day has been increased for the next biennium. Members discussed the importance of promoting diversity in vegetation through layering of ground cover, shrubs, and trees. Next year, the City will have an approved tree list, which will assist in identifying different tree species for the giveaway. The draft tree list includes native species for unimproved right-of-way areas. A laminated page listing all giveaway plants was helpful for attendees as many used the information to determine which species of tree they wanted. Individual handout information for each plant was also beneficial for the community.

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Members discussed the interaction of the Arbor Day and Earth Day participants as some of the participants in the Earth Day activity expressed interest in receiving plants. Members supported the physical setup of the two events at Tumwater Historical Park. All members agreed the event was very successful this year.

Members discussed the lack of a specific tree planting during the event and shared ideas on potential places to plant trees in the City to celebrate Arbor Day/Earth Day.

Members expressed interest in having the City display a banner across Tumwater Boulevard advertising the Arbor Day event. Coordinator Jones Wood said the Parks and Recreation Department control the placement of banners along Tumwater Boulevard. She indicated she would follow-up with Parks and Recreation on the possibility of displaying a banner next year.

**ROUNDAABOUT  
 LANDSCAPING:**

Boardmember Chapman commented on a relatively new roundabout that has not been planted located at Crosby Boulevard and Barnes. The roundabout was required traffic mitigation for an apartment complex. He questioned the lack of landscaping within the roundabout.

Coordinator Jones Wood said the roundabout is located on Tumwater Hill at Crosby Boulevard and Barnes near U.S. Highway 101. She shared photographs of the area depicting the smaller roundabout. Another unplanted roundabout in the City is located on 93<sup>rd</sup> Avenue associated with private development requirements as part of the project. Landscaping in the roundabout was not required for either project. In both locations, the roundabouts are smaller and the approach geometry is tighter affecting sight distance with no trees recommended in the roundabout. As the roundabouts are limited in space, they are more difficult to plant while maintaining sight distance according to City engineers. All City-owned roundabouts are landscaped. All roundabouts in the City must be accessible by emergency vehicles. Smaller roundabouts with limited space would likely not be landscaped because of sight distance and accessibility by emergency vehicles. One forthcoming new City roundabout planned is located at Kingswood and Tyee Drive. The compact roundabout will not have landscaping because of accessibility for emergency vehicles.

Discussion ensued on different landscaping requirements for roundabouts in other jurisdictions and alternative options, such as rock gardens or adding sculptures, such as totem poles as some other jurisdictions have completed for some roundabouts. Boardmember Chapman recommended addressing roundabout landscaping during the review of the landscape code for landscaping requirements for different types of roundabouts to

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avoid just concrete paving. Members offered suggestions on the appropriate avenue to pursue requirements such as the development guide or through the Urban Forestry Management Plan.

**MOTION:** **Boardmember Chapman moved, seconded by Chair Grantham, to advocate for the City to require private development to install landscaping in roundabouts that meet the criteria. Motion carried unanimously.**

**OTHER BUSINESS:** Boardmember Chapman requested an update on the status of the Meeker-Davis oak tree. Coordinator Jones Wood advised that the City Council's worksession on May 14, 2024 includes a discussion on the oak tree. The Tumwater Historical Preservation Commission did not delist the tree from the Historic Register, as the Commission desired more research and options. She noted that several public comments spoke to the creditability of the City's urban forester, Kevin McFarland. City Administrator Parks contacted the urban forester in the City of Olympia. The urban forester spoke in support of Mr. McFarland's reputation and offered his opinion on his report. He supported the completeness of the report submitted by Mr. McFarland. Although the Tree Board does not have a role in the decision concerning the outcome of the tree, Boardmembers are welcome to share their respective opinions about the issue as tree professionals. The City plans to release a community survey and the June meeting might be an opportunity to seek feedback from the Board on the outcome of the oak tree.

Boardmember Chapman expressed interest for the Tree Board to have a stronger voice in the process.

Boardmember Sedore referred to a recommendation he received from Nancy Partlow on a book titled, *The Nature of Oaks: The Rich Ecology of Our Most Essential Native Trees* by Douglas W. Tallamy. The author reveals what is going on in oak trees month by month, highlighting the seasonal cycles of life, death, and renewal. The book is an excellent environmental ecological study. According to the author, oak trees will grow for 300 years, maintain a stasis between new growth and canopy loss for the next 300 years, and then decline over the next 300 years. Oak trees can live with decay. During his employment with DNR, he learned from a state pathologist that trees can compartmentalize decay. Human beings do not compartmentalize decay, such as living with a dead liver, but a tree can live for hundreds of years with dead hardwood. On his property is a 150-year old apple tree. Some of the tree has rotted but it continues to grow and thrive, which is the case for the Meeker oak because the tree is experiencing hard decay, which is normal for an oak tree. The tree can live for hundreds of years with decay, as the tree is capable of compartmentalizing decay in the center of the tree. However, the location of the tree is problematic over a highway and next to an

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airport.

Discussion ensued on the damage to the tree years ago when it was struck by a vehicle. The damage was a very large hole in the tree, which is noticeable. The location and position of the tree is problematic. The City's conversation since last June surrounding the potential removal of the tree has focused on the health of the tree and the risk to the traveling public and the hanger. Boardmember Chapman commented on the possibility of diverting the highway further away from the tree. Coordinator Jones Wood said some community members offered the same suggestion at the last meeting of the Board.

The tree is located within City right-of-way. Mr. McFarland has planted some acorns from the tree.

Boardmember Sedore referred to comments by some in the community questioning the numerous restorative activities along Percival Creek when a homeless encampment is destroying the stream. He asked whether the encampment is located in Tumwater or Olympia. Chair Grantham said the site is located within the boundary of the City of Olympia. A large homeless community is polluting Percival Creek. The Olympia Fire Department responds quite frequently to the encampment. Many in the community are asking the City to address the damage that is occurring to Percival Creek. Coordinator Jones Wood advised that the restoration activities by the City are located upstream of the encampment. Boardmember Sedore noted that salmon passage is affected by the encampment.

Boardmember Jackson mentioned another homeless encampment located off Martin Way within a buffer of a wetland. An apartment complex located on the opposite side was required to remove all understory vegetation and replant to the border of the wetland, which has negatively affected the wetland.

Boardmember Sedore addressed a letter from Nancy Partlow requesting the City inventory all oak trees. She has identified oak trees on many private properties and believes the City should create an inventory of both public and private properties with oak trees.

Discussion ensued on the capabilities of the City to inventory oak trees on private properties. Ms. Partlow also identified existing oaks at the future Trosper Lake park. She would like the trees preserved when the park is developed. Coordinator Jones Wood explained that the City's code speaks to Garry oaks as a protected state species. Requirements to protect the trees are triggered when development occurs. City staff also collected acorns from the Meeker oak tree with the intent of planting them at the new Trails End Park.

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Boardmember Jackson commented on the care required to nurture and grow oaks from acorns to develop a root system in several years.

Members and staff discussed issues associated with the urban environment and the ecological conditions necessary for successfully growing Garry oak trees. Several jurisdictions were cited with programs developed to promote the development and protection of oak trees and habitat in addition to many groups formed to promote the protection and planting of Garry oaks throughout the state.

**NEXT MEETING  
DATE:**

Coordinator Jones Wood noted that the meeting in June is not a joint meeting with the Planning Commission. The next meeting is scheduled on Monday, June 11, 2024.

**ADJOURNMENT:**

**With there being no further business, Chair Grantham adjourned the meeting at 8:57 p.m.**

Prepared by Valerie L. Gow, Recording Secretary/President  
Puget Sound Meeting Services, psmsoly@earthlink.net



TO: Tree Board  
FROM: Alyssa Jones Wood, Sustainability Coordinator  
DATE: July 8, 2024  
SUBJECT: Draft urban forester job description

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1) Recommended Action:

Provide feedback on the draft urban forester job description.

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2) Background:

The Tumwater Urban Forestry Management Plan (UFMP) was adopted by the City Council on March 2, 2021, by Ordinance No. 2020-004. The UFMP includes Objective 5.2, Action D.: "hire an urban forester, certified arborist, or urban ecologist on City staff or look to share that position with other jurisdictions or departments as part of a wider City environmental manager position to manage the community and urban forest to assist in development review, respond to inquiries, and assess individual tree-health issues."

The City has been awarded a \$333,301.75 grant from the U.S. Forest Service, passed through the River Network. The grant agreement for this award has not yet been approved by the City Council but is scheduled to be considered in July 2024. If accepted, this grant would provide 50% of the funding for the urban forester position including benefits through 2028. That 50% would be focused on occurring or otherwise directly benefiting the EPA IRA Disadvantaged Communities census blocks shown in orange in Attachment B. The remaining 50% of funding for the urban forester position will be proposed in the forthcoming 2025/2026 Biennium Budget and will be subject to City Council approval.

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3) Alternatives:

☐ Do not discuss the draft urban forester job description.

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4) Attachments:

- A. Draft urban forester job description
- B. Map of Tumwater EPA IRA Disadvantaged Communities

## Urban Forester

Grade 54

Salary: \$6,049 - \$7,368 per month

Location: WRS Office at South Puget Sound Community College

Job Type: Full Time

Job Number: TBD

Department: Water Resources & Sustainability

Opening Date: TBD

Closing Date: TBD

The City of Tumwater Water Resources & Sustainability Department seeks a qualified individual to fill the position of Urban Forester. This position leads efforts to maintain and enhance the City urban and community forest including planning, implementing, coordinating, and operation of urban forestry initiatives and programs. Provides technical expertise on public and private tree-related concerns and is responsible for implementing the City Urban Forestry program. The selected individual will assist with the administration of a broad range of local land use and development codes and support city planning and policy development with technical expertise in urban forestry. This position is expected to spend approximately 60% of their time in an office and 40% of their time in the field.

### Essential Job Duties

Join our team of dedicated public servants and make a difference.

The essential functions of this position include, but are not limited to:

1. Leads and implements programs to maintain and enhance the City tree canopy including tree planting and distribution programs
2. Supervises tree planting and maintenance as required
3. Provides technical expertise to internal and external stakeholders on urban forestry-related issues as needed
4. Supports Code Enforcement, landscape plan review, ordinance development, inspections, and other land use planning related to trees
5. Supports advancing best practices in Urban Forestry including Right Tree Right Place
6. Conducts education and outreach on urban forestry topics
7. Maintains records, prepares and presents written and oral reports on urban forestry
8. Performs field site visits to conduct tree assessments on City properties
9. Understand and administer tree, soil and native vegetation protection and replacement standards to land development applications such as site plans, land use review, civil engineering, and building permit applications
10. Assist in implementing the City Urban Forestry Management Plan, including any future updates
11. Promote the proper management of trees on City-owned properties (including but not limited to right-of-way)
12. Serve as an alternate Staff Liaison to the Tumwater Tree Board and other urban forestry policy and technical teams
13. Prepare staff reports and other documents that clearly and accurately convey complex information to the public, advisory commissions, and City Council
14. Maintain the City Tree City USA accreditation and tree inventory data
15. Visits nurseries and selects trees for mass planting projects throughout the City

16. Manages the River Foundation grant and all deliverables therein that funds the Urban Forestry Work
17. Assists in conducting field surveys to inspect trees and other plant material to determine quality, rate of growth, and insect and disease damage and recommends treatment plans to correct problems identified as needed
18. Estimates the extent and cost of injuries to trees subjected to environmental damage and submits to supervisor for inclusion in the City budget
19. Coordinates volunteer tree-planting events with the City Volunteer Coordinator and Water Resources Specialist (Habitat & Outreach)
20. Provides professional horticultural and landscape advice to citizens, departments, and agencies as needed
21. Directs, supervises, and trains staff engaged in forestry activities
22. Coordinates and administers the City Heritage Tree program

Performs related duties and responsibilities as required.

### **Selection Criteria**

#### **Knowledge, Skills, and Abilities**

To perform this job successfully, an individual must be able to perform each essential job function satisfactorily. The requirements listed below are representative of the knowledge, skills and abilities required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

1. Knowledge of current urban forestry practices and procedures
2. Knowledge of applicable City Ordinances, policies, procedures, rules, and regulations related to trees and landscaping
3. Skill of active listening
4. Skill of coordination with others
5. Project management
6. Thorough knowledge of modern office practices, procedures, software and equipment.
7. Ability to maintain effective, courteous, and tactful public relations with elected officials, management, staff, and the general public.

**Message to potential applicants:** Studies have shown that some potential applicants are less likely to apply for jobs unless they believe they meet every one of the items or tasks listed in a job description. We are most interested in finding the best candidate for the job, and we understand that the best candidate may be someone who will learn some tasks on the job. If you are interested in this position, and have the minimum qualifications, we encourage you to go ahead and apply! Feel free to think about how you will bring your own set of skills to the role and tell us about the potential that you hold.

#### **Minimum Qualifications:**

Four-year degree in forestry, ecology, arboriculture, horticulture, Planning or closely related field and three years of related experience required. Additional qualifying experience of completion of coursework at an accredited college or university in a job-related field, may substitute on a year-for-year basis one year of the required experience.

International Society of Arboriculture (ISA) Arborist Certification or the ability to attain ISA Arborist Certification within 6 months of hire. The Urban Forester must maintain this credential for the duration of their employment at the City of Tumwater.

**Preferred Qualifications:**

1. A valid Washington State Driver's License may be required
2. Preferred credentials include the following: ISA Certified Arborist Municipal Specialist, ISA Tree Risk Assessment Qualification, and/or American Society of Consulting Arborists Tree Plant Appraisal Qualification. The Urban Forester must maintain this credential for the duration of their employment at the City of Tumwater.

**Contacts:** This position will have significant daily contact with the public for the purpose of information-sharing and problem resolution. Due to the subject matter, some contacts may be confrontational, requiring the Urban Forester to explain City policies and procedures in a professional, concise, and respectful manner. The Urban Forester will also have daily contact with other City staff for the purpose of information sharing, work coordination, and problem resolution. Additional contacts with public officials are for the purpose of information gathering and project definition. Contacts with public officials are usually held in a public meeting forum.

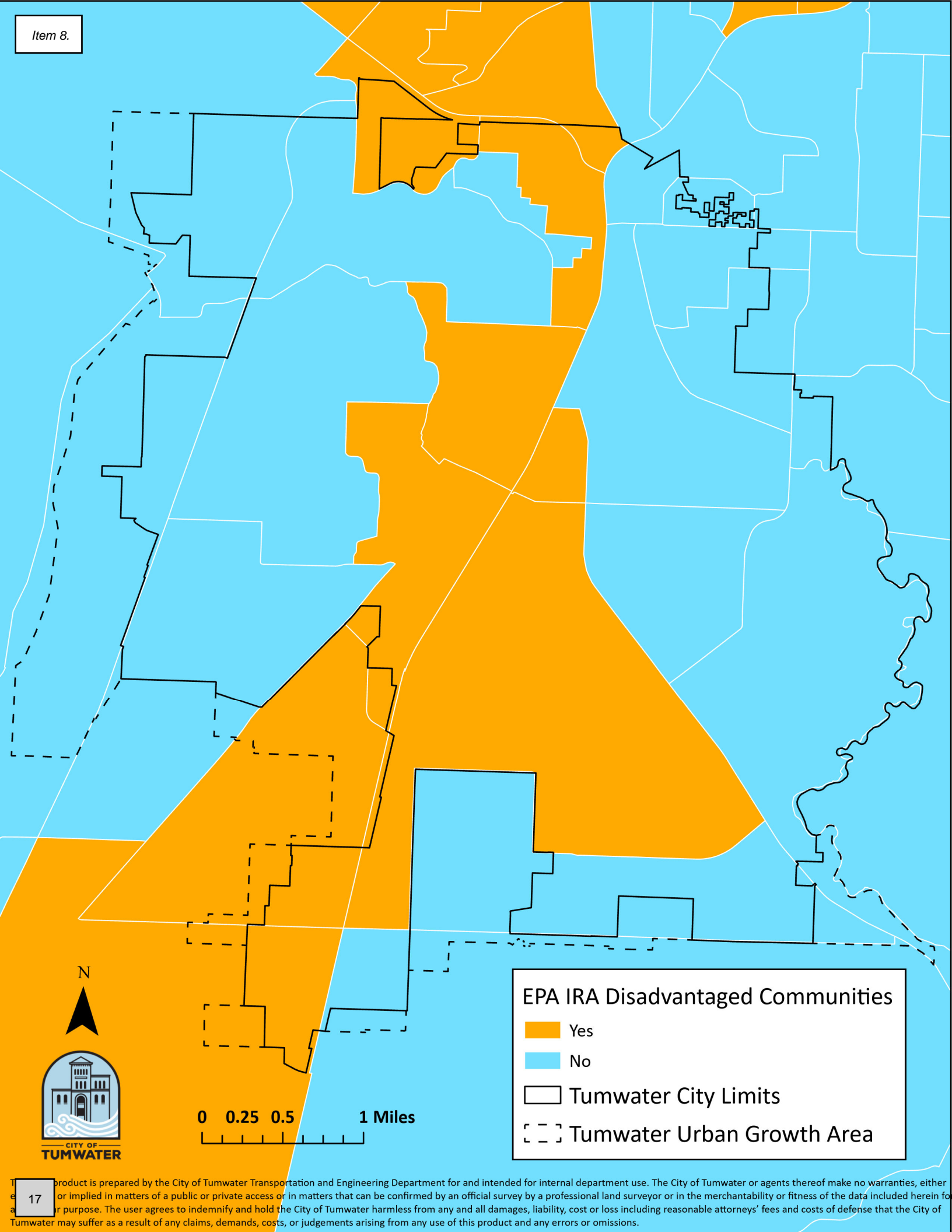
**Supervision:** May assist in the training and/or supervision of less experienced staff. However, general supervision is not required as a part of this job.

**Accountability:** The Urban Forester reports to the Sustainability Coordinator under the guidance of the Water Resources & Sustainability Department Director. The Urban Forester is accountable for completing all assigned work in a timely, professional manner.

**Working Conditions:** The Urban Forester will generally work in an office with a significant portion of time spent performing duties out-of-doors completing site investigations. Investigations require working on construction sites, rough terrain, in wetlands, boating and being in the proximity of heavy equipment. Frequent travel and attendance at meetings and conferences, both during regular working hours and in the evening are required.

This position may require attendance at regularly scheduled night meetings once per month.

The City of Tumwater is an Equal Opportunity Employer (EOE), committed to a diverse workforce. Women, minorities and people with disabilities are encouraged to apply.



### EPA IRA Disadvantaged Communities

Yes

No

Tumwater City Limits

Tumwater Urban Growth Area



0 0.25 0.5 1 Miles



TO: Tree Board  
FROM: Alyssa Jones Wood, Sustainability Coordinator  
DATE: July 8, 2024  
SUBJECT: Case study of current Protection of Trees and Vegetation code (TMC 16.08) implementation

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1) Recommended Action:

Review and discuss two case studies of how TMC 16.08 is applied currently.

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2) Background:

The Tree Board, Planning Commission, and City Staff have been involved with updating the TMC 16.08 since the fall of 2022. The project was put on hold in the spring of 2023 while the City worked to clarify the Washington Wildland Urban Interface Code on the state level. City staff endeavors to restart the code update process for TMC 16.08 in the fall of 2024. In the meantime, Board Member Brent Chapman suggested that the Tree Board review case studies of how the current code is applied.

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3) Alternatives:

- ☐ Table the discussion of TMC 16.08 case studies to the August 12, 2024 Tree Board meeting.
- 

4) Attachments:

- A. TMC 16.08
- B. Belmont Flats Tree Report
- C. Yorkshire Tree Protection Plan
- D. Kingswood Apartments Tree Protection Plan
- E. Kingswood Apartments Landscape Plan

## Chapter 16.08

### PROTECTION OF TREES AND VEGETATION

Sections:

- 16.08.010 Short title.**
- 16.08.020 Purposes.**
- 16.08.030 Definitions.**
- 16.08.035 City tree protection professional.**
- 16.08.038 Forest practice applications.**
- 16.08.040 Tree account.**
- 16.08.050 Permit required – Applications – Requirements – Processing – Conditions of issuance.**
- 16.08.060 Performance and maintenance bond may be required.**
- 16.08.070 Standards.**
- 16.08.072 Maintenance requirements.**
- 16.08.075 Heritage trees designated.**
- 16.08.080 Exemptions.**
- 16.08.090 Alternative plans.**
- 16.08.100 Appeal procedure.**
- 16.08.110 Violation – Criminal penalties.**
- 16.08.120 Violation – Civil penalties – Presumption – Other remedies.**

#### **16.08.010 Short title.**

This chapter shall be known and may be cited as the "tree and vegetation protection ordinance" of the city.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Amended, 09/20/1994; Ord. 1190, Added, 05/16/1989)

#### **16.08.020 Purposes.**

The regulations are adopted for the following purposes:

- A. To promote public health, safety and general welfare of the citizens of Tumwater, and to retain as many existing mature trees as possible, without preventing the reasonable development and maintenance of land;
- B. To preserve and enhance the city's physical and aesthetic character by preventing indiscriminate removal or destruction of trees and ground cover, and by encouraging development that incorporates existing trees and ground cover into site development practices;
- C. To retain trees and vegetation for their positive environmental effects including, but not limited to, the protection of wildlife habitat;
- D. To promote identification and protection of trees that have historical significance; are unusual due to their size, species, or age; are unusual for their aesthetic quality; or have other values or characteristics that make them worthy of protection;
- E. To prevent erosion and reducing the risk of landslides;
- F. To protect environmentally sensitive areas;
- G. To minimize surface water runoff and diversion. To reduce siltation and other pollution entering city storm sewer systems, other utility improvements, and the city's rivers, streams, and lakes;
- H. To retain trees and ground cover to assist in abatement of noise, to provide wind breaks, and for improvement of air quality;
- I. To promote building and site planning practices that are consistent with the city's natural topographical, soil, and vegetation features and to reduce landscaping costs for new development by utilizing existing trees and ground cover to help fulfill landscaping requirements;
- J. To ensure prompt development, restoration and replanting, and effective erosion control of property after land clearing;
- K. To promote conservation of energy;
- L. To educate the public regarding urban forestry;
- M. To implement objectives of the State Environmental Policy Act and Growth Management Act; and
- N. To implement and further the city's comprehensive plan and other related ordinances.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O2000-012, Amended, 08/01/2000; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/29/1994; Ord. 1190, Added, 05/16/1989)

#### **16.08.030 Definitions.**

- A. "Buildable area" is that portion of a parcel of land wherein a building, parking and other improvements may be located and where construction activity may take place. Buildable area shall not include streams, flood hazard areas, geological hazard areas or wetlands and their buffers as defined in TMC Chapter [18.04](#). For the purpose of calculating required tree protection open space area, existing and newly dedicated city rights-of-way shall not be included.

"City" means the city of Tumwater, Washington.

- C. "Code administrator" means the director of the community development department or the director's designated representative.
- D. "Conversion option harvest plan (COHP)" means a voluntary plan developed by the landowner and approved by the Washington State Department of Natural Resources and the city of Tumwater, indicating the limits and types of harvest areas, road locations, and open space. This approved plan, when submitted to the Department of Natural Resources as part of the forest practice application and followed by the landowner, maintains the landowner's option to convert to a use other than commercial forest product production (releases the landowner from the six-year moratorium on future development).
- E. Critical Root Zone or CRZ. Unless determined otherwise by the tree protection professional, the root protection zone for trees means an area contained inside an area on the ground having a radius of one foot for every inch of tree diameter, measured from four and one-half feet above ground level, but in no event shall the root protection zone be less than a six-foot radius.
- F. "Drip line" of a tree means an imaginary line on the ground created by the vertical projections of the foliage at its circumference.
- G. "Environmentally sensitive area" means any lands with the following characteristics:
  - 1. "Geologically hazardous areas" as defined in TMC Chapter [16.20](#);
  - 2. Lakes, ponds, stream corridors, and creeks as defined in TMC Chapter [16.32](#);
  - 3. Identified habitats with which endangered, threatened, or sensitive species have a primary association as defined in TMC Chapter [16.32](#);
  - 4. Wetlands as defined in TMC Chapter [16.28](#).
- H. "Grading" means excavation, filling, or any combination thereof. Excavation and grading is governed by the International Building Code (IBC).
- I. "Greenbelt" means certain designated areas of a project or development that are intended to remain in a natural condition, and/or private permanent open space, or serve as a buffer between properties or developments.
- J. "Greenbelt zone" means any area so designated on the official zoning map of the city and subject to the provisions of TMC Chapter [18.30](#).
- K. "Ground cover" means vegetation that is naturally terrestrial excluding noxious or poisonous plants and shall include trees that are less than six inches in diameter measured at four and one-half feet above ground level.
- L. "Hazardous tree" means any tree that, due to its health or structural defect, presents a risk to people or property.
- M. "Heritage tree(s)" means tree(s) designated by the city and their owners as historical, specimen, rare, or a significant grove of trees.
- N. "Historic tree" means any tree designated as an historic object in accordance with the provisions of TMC Chapter [2.62](#).
- O. "Land clearing" or "clearing" means any activity which removes or substantially alters by topping or other methods the vegetative ground cover and/or trees.
- P. "Open space" means unoccupied land that is open to the sky and which may or may not contain vegetation and landscaping features, subject to the provisions in TMC [17.04.325](#) and [17.12.210](#).
- Q. "Parcel" means a tract or plot of land of any size which may or may not be subdivided or improved.
- R. "Qualified professional forester" is a professional with academic and field experience that makes them an expert in urban forestry. This may include arborists certified by the International Society of Arboriculture, foresters with a degree in forestry from a Society of American Foresters accredited forestry school, foresters certified by SAF, or urban foresters with a degree in urban forestry. A qualified professional forester must possess the ability to evaluate the health and hazard potential of existing trees, and the ability to prescribe appropriate measures necessary for the preservation of trees during land development. Additionally, the qualified professional forester shall have the necessary training and experience to use and apply the International Society of Arboriculture's Guide for Plant Appraisal and to successfully provide the necessary expertise relating to management of trees specified in this chapter.
- S. "Topping" is the removal of the upper crown of the tree with no consideration of proper cuts as per the current ANSI A300 Standard. Cuts created by topping create unsightly stubs that promote decay within the parent branch and can cause premature mortality of a tree. Topping a tree is considered to be a removal, and may require a tree removal permit.
- T. "Tree" means any healthy living woody plant characterized by one or more main stems or trunks and many branches, and having a diameter of six inches or more measured four and one-half feet above ground level. Healthy in the context of this definition shall mean a tree that is rated by a professional with expertise in the field of forestry or arbor culture as fair or better using recognized forestry or arbor cultural practices. If a tree exhibits multiple stems and the split(s) or separation(s) between stems is above grade, then that is considered a single tree. If a tree exhibits multiple stems emerging from grade and there is visible soil separating the stems, then each soil-separated stem is considered an individual tree. Appropriate tree species under six inches may be considered with approval of the city tree protection professional.
- U. "Tree plan" is a plan that contains specific information pertaining to the protection, preservation, and planting of trees pursuant to this chapter.
- V. "Tree protection open space" is a separate dedicated area of land, specifically set aside for the protection and planting of trees.
- W. "Tree protection professional" is a certified professional with academic and field experience that makes him or her a recognized expert in urban tree preservation and management. The tree protection professional shall be either a member of the International Society of Arboriculture or the Society of American Foresters or the Association of Consulting Foresters, and shall have specific experience with urban tree management in the Pacific Northwest. Additionally, the tree protection professional shall have the necessary training and experience to use and apply the International Society of Arboriculture's Guide for Plant Appraisal and to successfully provide the necessary expertise relating to management of trees specified in this chapter.

(Ord. 02013-017, Amended, 08/19/2014; Ord. 02013-025, Amended, 01/07/2014; Ord. 02011-002, Amended, 03/01/2011; Ord. 02006-014, Amended, 04/17/2007; Ord. 02002-012, Amended, 07/16/2002; Ord. 097-029, Amended, 03/17/1998; Ord. 094-029, Amended, 09/20/1994; Ord. 1311, Amended, 04/07/1992; Ord. 1190, Added, 05/16/1989)

#### **16.08.035 City tree protection professional.**

In the city's interest of achieving professional assistance in the city's tree protection efforts and achieving consistency in tree protection decisions; the city shall contract with a "city tree protection professional" that qualifies as a tree protection professional under the definition of this chapter. The tree protection professional shall be responsible for providing the information and services required of a tree protection professional described herein.

Individual applicants will be responsible for payment of costs of the tree protection professional for projects necessitating work to be performed by the tree protection professional with the exception that the code administrator may waive payment by the applicant for minor work of the tree protection professional in determining an exempt project; provided however, that the city shall be responsible for billing and collecting costs charged to the applicant and transferring payment to the tree protection professional unless the city has opted for some other mechanism of providing for the costs, such as inclusion of costs in application fees.



**16.08.038 Forest practice applications.**

Pursuant to RCW [76.09.240](#), requiring local jurisdictions to set standards for and to process class IV forest practice applications, such permits shall be processed as a land clearing permit, and shall meet the requirements of this chapter.

A. The application of this chapter to forest practice activities regulated by the Washington State Forest Practices Act (Chapter [76.09](#) RCW) shall be limited to:

1. General forest practices.

B. This chapter is intended to allow the city of Tumwater to assume jurisdiction for approval of general forest practices, approvals occurring in the city of Tumwater, as authorized under the Washington State Forest Practices Act, Chapter [76.09](#) RCW. Until such time as jurisdiction for these permits is transferred to the city by the State Department of Natural Resources, the city will act as the State Environmental Policy Act (SEPA) lead agency for all general forest practice approvals occurring within the city limits. This chapter shall rely upon existing definitions contained within the Washington State Forest Practices Act (Chapter [76.09](#) RCW), Rules for the Washington State Forest Practices Act (Chapter [222-16](#) WAC), and the Tumwater Municipal Code.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Added, 07/16/2002)

**16.08.040 Tree account.**

There is hereby established within the city a "tree account" for the purposes of acquiring, maintaining and preserving wooded areas, and for planting and maintaining trees within the city.

A. Collections and Deposits. All fines collected for violations of this chapter shall be deposited into the tree account. All donations and mitigation fees collected related to the preservation of trees or the enhancement of wooded buffer areas shall also be deposited into the tree account.

B. Maintenance of Account. The tree account shall be maintained by the finance director as a separate, interest-bearing account.

C. Use of Funds. Funds in the tree account shall be used only upon appropriation by the city council. Funds may be withdrawn from the tree account with the approval of the code administrator, and may be used for any purpose consistent with the intent of this chapter. Funds used to plant trees may be used only on city-owned property, or on property upon which the city has been granted an easement for the purpose of establishing or maintaining trees or other vegetation.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Added, 09/20/1994)

**16.08.050 Permit required – Applications – Requirements – Processing – Conditions of issuance.**

A. No person, corporation, or other legal entity not exempt under TMC [16.08.080](#) shall engage in land clearing or tree removal in the city without having received a land clearing permit.

B. Requirement Established. The application for land clearing permit shall be submitted with any project permit as defined in TMC [14.02.020](#)(O), including single-family and duplex structures unless a land clearing permit was previously reviewed as part of prior project permit. A tree protection plan is required to obtain a land clearing permit and is also required for any land development not exempt under TMC [16.08.080](#). The tree protection plan shall be developed by a qualified professional forester and be submitted in conjunction with other environmental submittals and site plan development permits. For single-family homes on lots created prior to November 1994, the applicant has the option of using the city tree protection professional to prepare the permit application. This service will be provided at the same hourly rates charged to the city under its contractual arrangement with the tree protection professional.

C. An application for a land clearing permit shall be submitted on a form provided by the city. Accompanying such form shall be a report which includes the following information:

1. General vicinity map;
2. Date, north arrow and scale;
3. Property boundaries, the extent and location of proposed clearing and major physical features of the property (streams, ravines, etc.);
4. Tree Inventory. Drawn to scale on the preliminary or conceptual site plan: a map delineating vegetation types. Each type should include the following information:
  - a. Average trees and basal area per acre, by species and six-inch diameter class. For nonforested areas, a general description of the vegetation present.
  - b. Narrative description of the potential for tree preservation for each vegetation type. This should include soils, wind throw potential, insect and disease problems, and approximate distance to existing and proposed targets.
  - c. Description of any off-site tree or trees, which could be adversely affected by the proposed activity;
5. Tree Protection Plan. Drawn to scale on the site plan, grading and erosion control and landscape plans. It should include the following information:
  - a. Surveyed locations of perimeters of groves of trees and individual trees to be preserved, adjacent to the proposed limits of the construction. General locations of trees proposed for removal. The critical root zones of trees to be preserved shall be shown on the plans.
  - b. Limits of construction and existing and proposed grade changes on site.
  - c. Narrative description, buildable area of the site, and graphic detail of tree protection, and tree maintenance measures required for the preservation of existing trees identified to be preserved.
  - d. Timeline for clearing, grading and installation of tree protection measures.
  - e. Final tree protection plan will be drawn to scale on the above described plans and submitted with the final application packet;
6. Tree Replacement Plan. Drawn to scale on the site and landscape plans. The tree replacement plan shall be developed by a licensed Washington landscape architect, Washington certified nursery professional, ISA certified arborist, board certified horticulturist, qualified professional forester or Washington certified landscaper. It should include the following information:
  - a. Location, size, species and numbers of trees to be planted.
  - b. Narrative description and detail showing any site preparation, installation and maintenance measure necessary for the long-term survival and health of the trees.
  - c. Narrative description and detail showing proposed locations of required tree planting, site preparation, installation and maintenance within critical root zones of preserved groups or individual trees.
  - d. Cost estimate for the purchase, installation and three years' maintenance of trees;
7. A timeline for implementation and monitoring of the tree protection, and/or replacement plan;

A plan indicating how the site will be revegetated and landscaped;

9. A proposed time schedule for land clearing, land restoration, revegetation, landscaping, implementation of erosion controls, and any construction of improvements;
10. Information indicating the method to be followed in erosion control and restoration of land during and immediately following land clearing;
11. A note indicating that the city will have the right of entry upon the subject property for the purpose of performing inspections consistent with the provisions of this chapter;
12. The approved tree protection plan map will be included in contractor's packet of approved plans used for construction on the project; and
13. Other information as deemed appropriate to this chapter and necessary by the code administrator or city tree protection professional.

D. In addition to the requirements noted in subsection C of this section, on timbered property greater in size than one acre or commercial property with more than fifteen trees, or other sites the city deems necessary because of special circumstances or complexity, the code administrator may require review of the site and proposed plan and submittal of a report by the city's tree protection professional for compliance with the requirements of this chapter.

Further provided, that the code administrator may modify the submittal requirements of subsections C and D of this section, on individual applications where the information is not needed or is unavailable.

E. Each application shall be submitted with a fee established by resolution of the city council, to help defray the cost of handling the application, no part of which fee is refundable.

F. The code administrator shall notify the applicant whether the application is complete within twenty-eight calendar days of receipt of the application. If incomplete, the code administrator shall indicate in the notice the information required to make the application complete. The code administrator shall approve, approve with conditions or deny the permit within thirty calendar days of receipt of the complete application, or within thirty calendar days of completion of any environmental review, whichever is later. For applications such as site development proposals where there is more than a land clearing permit pending, the code administrator shall, whenever feasible, coordinate reviews, notices and hearings, and act upon the land clearing permit concurrently with other pending permits.

G. Any permit granted under this chapter shall expire eighteen months from the date of issuance, unless said permit is associated with another development permit. If it is associated with another development permit, the restrictions and deadlines of that approval will apply. Upon a written request, a permit not associated with another development permit may be extended by the code administrator for one six-month period. Approved plans shall not be amended without being resubmitted to the city. Minor changes consistent with the original permit intent will not require a new permit fee or full application standards to be followed. The permit may be suspended or revoked by the city because of incorrect information supplied or any violation of the provisions of this chapter.

H. Once issued, the permit shall be posted by the applicant on the site, in a manner so that the permit is visible to the general public.

(Ord. O2017-022, Amended, 12/05/2017; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1996; Ord. O94-029, Amended, 09/20/1994; Ord. 1190, Added, 05/16/1989)

#### **16.08.060 Performance and maintenance bond may be required.**

A. The code administrator may require bonds and bond agreements in such form and amounts as may be deemed necessary to assure that the work shall be completed in accordance with the permit. Bonds, if required, shall be furnished by the applicant or property owner. A bond agreement shall provide assurance that the applicant has sufficient right, title and interest in the property to grant the city all rights set forth in the agreement.

B. In lieu of a bond, the applicant may file assigned funds or an instrument of credit with the city in an amount equal to that which would be required in a bond.

C. The amount of bonds or other assurance instrument shall not exceed the estimated cost of the total restoration, revegetation, planting or landscaping work planned, as determined by the code administrator.

D. The duration of any bond or other required surety shall be not less than three years from the date that said restoration, revegetation, planting or landscaping has been accepted by the code administrator.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Amended, 09/20/1994; Ord. 1190, Added, 05/16/1989)

#### **16.08.070 Standards.**

All land clearing not exempt under TMC [16.08.080](#) shall conform to the approved plan and the following standards and provisions unless alternate procedures that are equal to or superior in achieving the purposes of this chapter are authorized in writing by the code administrator:

A. No land clearing and/or ground surface level changes shall occur in a greenbelt zone as delineated on the official zoning map except as required for uses permitted in that zone. In addition, such land clearing and/or ground surface changes shall be subject to all other applicable standards and regulations;

B. Land clearing in designated greenbelt, open space, tree tract or buffer areas of approved and recorded subdivisions or approved projects which would substantially alter the character or purpose of said greenbelt or buffer areas is prohibited, except in cases involving land clearing plans approved by the code administrator for removal of hazard trees, invasive or noxious plant species and replanting with native plant and tree species;

C. Erosion control measures shall be provided by the applicant's professional engineer, in conformance with the Drainage Design Erosion Control Manual for the Thurston Region, Washington, as currently written and subsequently amended. The erosion control measures shall be reviewed and subject to approval by the code administrator. The requirement for a professional engineer may be waived by the code administrator on a case-by-case basis;

D. Land clearing shall be accomplished in a manner that will not create or contribute to landslides, accelerated soil creep, settlement and subsidence on the subject property and/or adjoining properties;

E. When land clearing occurs that does not include development, the proposal shall contain provisions for the protection of natural land and water features, vegetation, drainage, retention of native ground cover, and other indigenous features of the site;

F. Land clearing shall be accomplished in a manner that will not create or contribute to flooding, erosion, or increased turbidity, siltation, or other form of pollution in a watercourse;

G. Land clearing in wetlands, and fish and wildlife habitat areas shall be in accordance with the provisions of TMC Chapter [16.28](#), Wetland Protection Standards, and TMC Chapter [16.32](#), Fish and Wildlife Habitat Protection;

H. During the months of November, December, and January, no land clearing shall be performed in areas with average slopes of fifteen percent or greater, or any slopes of forty percent or greater;

I. During the months of November, December, and January, no land clearing shall be performed in areas with fine-grained soils and a slope greater than five percent. For the purposes of this section, fine-grained soils shall include any soil associations which are classified in hydrologic soil groups C or D, as mapped in the Thurston County Soil Survey, or as determined by a qualified soil scientist;

J. Land clearing shall be undertaken in such a manner as to preserve and enhance the city's aesthetic character. The site shall be revegetated and landscaped as soon as practicable, in accordance with the approved revegetation plan. Where the construction schedule does not provide for revegetation of the site prior to October 15 of any year, all disturbed areas shall be hydro seeded or otherwise revegetated on an interim basis. The revegetation plan shall include plantings along public streets and adjoining property boundaries, especially between areas of differing intensities of development. For land

clearing permits that are part of a specific development proposal, land use development shall be initiated or a vegetative screen or buffer established within six months of the date of initiation of land clearing activities;

K. Land clearing shall be conducted so as to expose the smallest practical area of soil to erosion for the least possible time, consistent with the construction schedule. Provisions shall be made for interim erosion control measures;

L. Land clearing activities shall be limited to the hours of 7:00 a.m. to 8:00 p.m. on weekdays and 9:00 a.m. to 8:00 p.m. on Saturdays in accordance with TMC Chapter [8.08](#);

M. Open burning of land clearing debris is prohibited. Slash shall be properly disposed of off site or chipped and applied to the site within six months of the completion of the land clearing. Chipped material deposited on the site shall be spread out or other means used to prevent fire hazard;

N. Any trees to be retained shall be flagged or otherwise marked to make it clear which tree or groups of trees are to be retained;

O. Any trees or groups of trees to be retained shall have temporary fencing installed around the critical root zone. Temporary fencing must be adequate to protect the critical root zone of trees designated for retention. On construction sites where circumstances warrant, the code administrator may require more substantial tree protection fencing, as necessary, to protect intrusion of construction activity into the CRZ areas. Machinery and storage of construction materials shall be kept outside of the CRZ of trees designated for retention. The code administrator may require fencing beyond the CRZ if, in the code administrator's determination, such additional protection is needed to protect the tree from damage. Trees designated for retention shall not be damaged by scoring, ground surface level changes, compaction of soil, attaching objects to trees, altering drainage or any other activities that may cause damage of roots, trunks, or surrounding ground cover;

P. Any trees designated for retention shall be field verified by the city tree protection professional before land clearing begins;

Q. Not more than thirty percent of the trees on any parcel of land shall be removed within any ten-year period, unless the clearing is accomplished as part of an approved development plan. Such clearing shall be done in such a way as to leave healthy dominant and codominant trees well distributed throughout the site (taking into account the interdependency of the trees) unless, according to the determination of the city tree protection professional, this requirement would conflict with other standards of this section. For every tree removed at least one replacement tree shall be planted. Replacement trees shall consist of seedlings of the same or similar species to those trees removed, which shall be at least two years old. In lieu of this planting of replacement trees, the applicant may contribute a cash payment to the city's tree account in an amount equal to one hundred twenty-five percent of the retail value replacement cost. The time schedule for the planting of replacement trees shall be specified in the approved plan. If a land clearing permit is applied for as part of a development plan within ten years of clearing under this subsection, all trees removed under this standard will be counted towards required tree retention/replacement when a land clearing permit is issued;

R. When land clearing is performed in conjunction with a specific development proposal not less than twenty percent of the trees, or not less than twelve trees per acre (whichever is greater), shall be retained.

Provided, however, where it can be demonstrated that the trees on a site were planted as part of a commercial Christmas tree farm, then no less than seventeen percent or twelve trees per acre, whichever is less, shall be retained. Commercial tree farm status must be verified by the city tree protection professional.

1. Size, Type and Condition of Retained Trees.

- a. For the purpose of calculating tree retention standards, trees twenty-four inches or greater in diameter measured four and one-half feet above ground level shall count as two trees.
- b. Species such as willow, cottonwood, poplar and other species, the roots of which are likely to obstruct or injure site improvements, sanitary sewers or other underground utilities, shall not be considered trees for the purpose of calculating tree retention standards if located within the buildable portion of the lot.
- c. A tree must meet the following standards in order to be counted for the purpose of meeting tree retention standards:
  - i. Must have a post-development life expectancy of greater than ten years;
  - ii. Must have a relatively sound and solid trunk with no extensive decay or significant trunk damage;
  - iii. Must have no major insect or pathological problems;
  - iv. Must have no significant crown damage;
  - v. Should be fully branched and generally proportional in height and breadth for the tree age;
  - vi. Must be windfirm in their post-development state.

2. These standards may be waived or modified by the code administrator if the applicant provides substantial evidence demonstrating that strict compliance would make reasonable use of the property impracticable for three or more of the following reasons:

- a. Removal of the tree or trees is needed to enable use of a solar system. A waiver for this reason must be accompanied by a bond assuring completion of the solar system within the timeframe associated with the underlying building permit issued for the project.
- b. The tree retention standard cannot be achieved because of the necessity of complying with applicable zoning and development requirements including, but not limited to, residential densities, open space requirements for active recreation, floor area ratios (FAR), parking requirements, stormwater requirements, street construction requirements, etc.
- c. The tree retention standard cannot be achieved because the tree or trees do not have a reasonable chance of survival once the site is developed or modified and may pose a threat to life or property if retained.
- d. The applicant has made reasonable efforts to reconfigure or reduce the building footprint(s), site access, on-site utility systems and parking area(s) to avoid impacts to trees on the property.
- e. For commercial and industrial land uses, the project pro forma demonstrates that economically viable use of the property cannot be achieved while meeting the tree retention standards in this chapter. This standard is presumed to be met without a pro forma if the area disturbed by development of the property would be less than eighty-five percent of the land.
- f. The granting of the waiver or modification will not result in increasing the risk of slope failure, significant erosion or significant increases in surface water flows that cannot be controlled using best management practices.

3. Where the standard is waived or modified, the applicant shall plant not less than three trees for each tree cleared in excess of the standard.

- a. These replacement trees shall be at least two inches in diameter measured at a height of six inches above the root collar.
- b. Replacement trees shall be planted on the same parcel as the proposed development, unless the code administrator approves of an alternate location.

- c. Replacement trees must first be planted in a "tree protection open space." The tree protection open space shall be comprised of a minimum of five percent of the buildable area for the purpose of retaining existing trees and/or for the planting of replacement trees. Replacement trees in the tree protection open space shall be a mix of native coniferous and deciduous trees. The tree protection open space shall be a contiguous area. The tree protection open space is required to be eighty percent covered by tree canopy after fifteen years utilizing retained and/or replacement trees. Approved trees and their CRZ area within a critical area buffer may count for up to fifty percent of the required tree protection open space. Stormwater facilities can be considered as part of the tree protection open space if trees can be retained and/or planted successfully and not disable the operating functions of the facility.
- d. If more replacement trees are required than necessary to meet the canopy requirement in the tree protection open space, then these trees (either native and/or nonnative species) can be planted elsewhere on the parcel(s).
- e. If the city tree protection professional determines that more replacement trees are required than can be planted in the tree protection open space and the rest of the parcel, then the applicant shall contribute a cash payment to the city's tree account in an amount determined by the current city fee resolution.
- 4. In situations where a parcel of land to be developed does not meet the retention standards above in an undeveloped state, the applicant shall be required to reforest the site to meet the applicable standard outlined above at a 1:1 ratio as a condition of project approval.
- 5. In determining which trees shall be given the highest priority for retention, the following criteria shall be used:
  - a. Heritage or historic trees;
  - b. Trees which are unusual due to their size, age or rarity;
  - c. Trees in environmentally sensitive areas;
  - d. Trees that act as a buffer to separate incompatible land uses;
  - e. Trees which shelter other trees from strong winds that could otherwise cause them to blow down;
  - f. Trees within greenbelts, open space, tree protection open space or buffers;
  - g. Trees with significant habitat value as identified by a qualified wildlife biologist or by the city tree protection professional; and
  - h. Trees which are part of a continuous canopy or which are mutually dependent, as identified by a qualified professional forester or the city tree protection professional;
- S. In addition to the provisions of this chapter, the cutting or clearing of historic trees requires the issuance of a certificate of appropriateness in accordance with TMC Chapter [2.62](#).

(Ord. O2013-017, Amended, 08/19/2014; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Added, 09/20/1994)

#### **16.08.072 Maintenance requirements.**

- A. Maintenance Requirement. Trees are to be maintained in a vigorous and healthy condition, free from diseases, pests and weeds. Trees which become diseased, severely damaged or which die shall be removed by the owner as soon as possible but no later than sixty days after notification by the city. As it pertains to this section, all replacement trees that die shall be replaced with healthy trees of the same size and species as required by the approved tree protection plan for the property. If retained trees die due to construction damage or negligence on the part of the applicant, the city tree protection professional shall determine the appraised landscape value of the dead trees, and the applicant shall plant the equivalent value of trees back onto the site. In the event that space is not available for the required replacement trees (as determined by the city tree protection professional), the equivalent value shall be paid into the tree fund.
- B. For areas dedicated as tree protection open space areas, street trees and single-family residential land divisions, the maintenance requirement of this section shall be in effect for three years from the date the final plat is approved or the trees are planted. The tree plan shall be a condition of approval and identified on the face of the plat. The applicant shall also execute a covenant in a form agreeable to the city, which shall require the applicant and his successors to comply with the maintenance requirement of this section. The covenant shall obligate both the property owner and the homeowner's association and shall be recorded with the county auditor. The recording fee shall be paid by the applicant.
- C. For multifamily residential, commercial, and industrial developments, the maintenance requirement for all trees covered by the tree plan shall apply in perpetuity. The applicant shall execute a covenant in a form agreeable to the city, which shall require that the applicant and his successors comply with the maintenance requirement imposed by this section. The covenant shall be binding on successor property owners and owners' associations. The covenant shall be recorded with the county auditor and the recording fee shall be paid by the applicant.
- D. Maintenance Agreement. Each development to which the maintenance requirement for this chapter applies and that contain a heritage tree(s) shall also be subject to a maintenance agreement. The code administrator shall require the applicant to execute a maintenance agreement with the city, in a form acceptable to the city attorney, which shall include the provisions of the maintenance requirement in this chapter, to ensure the survival and proper care of any heritage trees identified in the tree plan.
- E. Failure to Maintain. Retained trees, replacement trees and street trees as per the requirements of this chapter and/or TMC Chapter [18.47](#), Landscaping, shall be maintained according to the American National Standards Institute, current edition of the American National Standards, ANSI A300. Failure to regularly maintain the trees as required in this section shall constitute a violation of this chapter and, if applicable, the plat covenant.

(Ord. O2006-014, Added, 04/17/2007)

#### **16.08.075 Heritage trees designated.**

- A. Trees can be nominated for designation by citizens, the Tumwater tree board, or city staff.
  - 1. Application for heritage tree designation must be submitted to the community development department. The application must include a short description of the trees, including address or location, and landowner's name and phone number. The application must be signed by both the landowner and nominator.
  - 2. The tree board reviews the application and makes a recommendation to the city council.
  - 3. All heritage trees will be added to city tree inventory and public works maps.
- B. Trees that are designated as heritage trees shall be classified as follows:
  - 1. Historical – A tree which by virtue of its age, its association with or contribution to a historical structure or district, or its association with a noted citizen or historical event.
  - 2. Specimen – Age, size, health, and quality factors combine to qualify the tree as unique among the species in Tumwater and Washington State.
  - 3. Rare – One or very few of a kind, or is unusual in some form of growth or species.
  - 4. Significant Grove – Outstanding rows or groups of trees that impact the city's landscape.

The city will provide an evaluation and recommendation for tree health and care and will provide up to one inspection annually upon request of the landowner. The city may, at its discretion, provide a plaque listing the owner's name and/or tree species/location.

D. Heritage Tree Removal.

1. A tree removal permit is required for removal of any heritage tree(s).
2. The city tree protection professional shall evaluate any heritage trees prior to a decision on the removal permit. Recommendations for care, other than removal, will be considered.
3. Dead or hazardous trees are exempt from a tree removal permit after verification by the city tree protection professional.

E. Heritage Tree Declassification. Any heritage tree may, at any time, be removed from heritage tree status at the request of the landowner after providing two weeks' written notice to the community development department. Unless an agreement can be reached to preserve the tree, the tree will be removed from the heritage tree inventory list and the plaque, if any, will be removed.

(Amended during 2011 reformat; O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O2000-012, Added, 07/18/2000)

**16.08.080 Exemptions.**

The following shall be exempt from the provisions of this chapter; provided however, the code administrator may require reasonable documentation verifying circumstances associated with any proposal to remove trees under any of the following exemptions:

- A. Land clearing in emergency situations involving immediate danger to life or property. For every tree cleared under this exemption, at least one replacement tree shall be planted. Except for the number of trees, replacement trees shall conform to the standard for replacement trees described in TMC [16.08.070\(R\)](#);
- B. Land clearing associated with routine maintenance by utility companies such as the power company and telephone company. Utility companies shall notify the community development department at least two weeks prior to the start of work and shall follow appropriate vegetation management practices;
- C. Land clearing performed within any public right-of-way or any public easement, when such work is performed by a public agency and the work relates to the installation of utilities and transportation facilities (such as streets, sidewalks and bike paths). To the greatest extent possible, all such work shall conform to the standards set forth in this chapter;
- D. Land clearing within ten feet (when required for construction) of the perimeter of the single-family or duplex dwellings and associated driveways or septic systems must be indicated on the plot plan submitted to the building official with an application for a building permit. This exemption does not apply to land clearing located within environmentally sensitive areas, or to areas subject to the provisions of the shoreline master program;
- E. Clearing of dead, diseased, or hazardous trees, after verification by the city tree protection professional. For every tree cleared under this exemption, at least one replacement tree shall be planted. Except for the number of trees, replacement trees shall conform to the standard for replacement trees described in TMC [16.08.070\(R\)](#);
- F. Clearing of trees that act as obstructions at intersections in accordance with the municipal code;
- G. The removal of not more than six trees from any parcel of land in three consecutive calendar years. This exemption does not apply to heritage or historic trees, or to trees located in a greenbelt or greenbelt zone, or in wetlands or critical areas and their buffers or to tree topping. A letter of "waiver" for the exempt removals must be obtained from the community development department prior to tree removal;
- H. Land clearing associated with tree farming operations specifically preempted by Chapter [76.09](#) RCW, Washington Forest Practices Act; provided, that a harvesting and reforestation plan is submitted to the code administrator prior to any land clearing;
- I. Clearing of noxious ground cover for the purposes of utility maintenance, landscaping, or gardening. This exemption applies solely to ground cover, for protected trees clearing must conform to subsection G of this section;
- J. Clearing of trees that obstruct or impede the operation of air traffic or air operations at the Olympia Airport. The tree replacement standards of this chapter must be met. Trees should be replanted outside the air operations area;
- K. Clearing of not more than six trees every three consecutive calendar years on developed properties, when such clearing is necessary to allow for the proper functioning of a solar-powered energy system. Such clearing may be done only after verification of the need to clear the trees, issuance of a waiver letter, and the issuance of a building permit for such a system by the code administrator.

(Amended during 2011 reformat; O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/20/1994; Ord. 1311, Amended, 04/07/1992; Ord. 1190, Added, 05/16/1989)

**16.08.090 Alternative plans.**

Required tree mitigation must conform to the standards contained in this chapter unless alternate plans that are equal to or superior in achieving the purposes of this chapter are authorized in writing by the code administrator. The code administrator may modify or waive the requirements of this chapter only after consideration of a written request for any of the following reasons:

- A. Special circumstances relating to the size, shape, topography or physical conditions, location, or surroundings of the subject property, or to provide it with use rights and privileges permitted to other properties in the vicinity and zone in which it is located;
- B. Improvement as required without modification or waiver would not function properly or safely or would not be advantageous or harmonious to the neighborhood or city as a whole;
- C. The proposed modification would result in an increased retention of mature trees and/or naturally occurring vegetation on the site;
- D. The proposed modification represents a superior result than that which could be achieved by strictly following the requirements of this chapter, the proposed modification complies with the stated purpose of TMC [16.08.020](#) and the proposed modification will not violate any city of Tumwater codes or ordinances.

Any modifications under this chapter shall be as limited as possible to achieve the aim of relating required mitigation for tree protection to the impacts caused by the individual development.

(Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. 1190, Added, 05/16/1989)

**16.08.100 Appeal procedure.**

Any person aggrieved by a decision or an action of the code administrator in the enforcement or implementation of this chapter may, within fourteen calendar days of such decision or action, file a written appeal to the hearing examiner. Any decision of the hearing examiner may be appealed to the Thurston County superior court in accordance with the provisions of TMC Chapter [2.58](#).

(Ord. O2017-022, Amended, 12/05/2017; Ord. O2006-014, Amended, 04/17/2007; Ord. O2002-012, Amended, 07/16/2002; Ord. O94-029, Amended, 09/20/1994; Ord. 1259, Amended, 11/06/1990; Ord. 1190, Added, 05/16/1989)

**16.08.110 Violation – Criminal penalties.**

A. Any person who violates the provisions of this chapter or fails to comply with any of the requirements shall be guilty of a misdemeanor and subject to the penalties set forth in TMC [1.12.010](#). In keeping with the city's concern regarding protection of the environment, the court should consider the imposition of minimum fines of no less than \$1,000 per occurrence. Each day such violation continues shall be

considered a separate, distinct offense. In cases involving land clearing in violation of this chapter, the clearing of any area up to the first acre shall be considered one offense, and the clearing of each additional acre and of any additional fractional portion that does not equal one more acre shall each be considered a separate and distinct offense.

B. Any person who commits, participates in, assists or maintains such violation may be found guilty of a separate offense and suffer the penalties as set forth in subsection A of this section.

C. In addition to the penalties set forth in subsections A and B of this section, any violation of the provisions of this chapter is declared to be a public nuisance and may be abated through proceedings for injunctive or similar relief in superior court or other court of competent jurisdiction.

D. Upon determination that a violation of the provisions of this chapter has occurred, the building official shall withhold issuance of building permits for the affected property until corrective action is taken by the responsible party. However, if mitigating circumstances exist and reasonable commitments for corrective action are made, the building official may issue building permits. Such corrective action may include:

1. Restoration and replanting of surface vegetation with plant material similar in character and extent as existed prior to the unauthorized clearing;
2. Implementation of drainage and erosion control measures;
3. Replanting of trees equal in value to those lost through unauthorized clearing. The value of the trees removed shall be determined by the city's tree protection professional using landscape tree appraisal methodology published in the current edition of the International Society of Arboriculture's Guide for Plant Appraisal.

(Ord. O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Amended, 09/20/1994; Ord. 1311, Amended, 04/07/1992; Ord. 1190, Added, 05/16/1989)

#### **16.08.120 Violation – Civil penalties – Presumption – Other remedies.**

A. As a supplement or alternative to the remedies set forth in TMC [16.08.110](#), the code administrator shall have the authority to seek civil penalties for violation of the provisions of this chapter.

Any person, corporation, partnership or other entity being the owner of real property or holder of timber rights upon such property who violates the provision of this chapter or fails to comply with any of its requirements shall upon a proper showing be deemed to have committed a class 1 civil infraction as defined by TMC [1.10.120\(D\)\(1\)](#). Civil liability shall also attach to others who violate the provisions of this chapter, whether or not such violation occurs at the direction of the owners or holder of timber rights.

As provided by law, the Tumwater municipal court is hereby vested with jurisdiction to hear civil infraction cases under this chapter. Said cases shall be heard by the court without jury and upon a finding that the infraction has been committed by a preponderance of the evidence.

The code administrator shall have the authority to charge as a separate violation each such tree removed or destroyed.

B. Presumption. For purposes of administration and prosecution of alleged violations of this chapter, there is hereby created a rebuttable presumption that the person whose name appears on tax records of the Thurston County assessor, with respect to the real property in question, has responsibility for ensuring that violations of provisions of this chapter do not occur on the property in question.

C. In addition to the penalties set forth in this chapter, any violation of the provisions of this chapter is declared to be a public nuisance and may be abated through proceedings for injunctive or similar relief in superior court or other court of competent jurisdiction.

D. Upon determination that a violation of the provisions of this chapter has occurred, the building official shall withhold issuance of building permits for their affected property until corrective action is taken by the responsible party. However, if mitigating circumstances exist and reasonable commitments for corrective action are made, the building official may issue building permits. Such corrective action may include:

1. Restoration of surface vegetation with plant material similar in character and extent as existed prior to the unauthorized clearing;
2. Implementation of drainage and erosion control measures;
3. Replanting of trees equal in value to those lost through unauthorized clearing. The value of the trees removed shall be determined by the city's tree protection professional using landscape tree appraisal methodology published in the current edition of the International Society of Arboriculture's Guide for Plant Appraisal.

(Amended during 2011 reformat; O2002-012, Amended, 07/16/2002; Ord. O97-029, Amended, 03/17/1998; Ord. O94-029, Added, 09/20/1994)

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The Tumwater Municipal Code is current through Ordinance O2024-003, passed May 21, 2024.

Disclaimer: The city clerk's office has the official version of the Tumwater Municipal Code. Users should contact the city clerk's office for ordinances passed subsequent to the ordinance cited above.

[City of Tumwater Website](#)

City Telephone: (360) 754-5855

[General Code](#)

# SUF

## **SOUND URBAN FORESTRY**

**Appraisals, Planning, Urban Landscape Design and Management**

### **Belmont Flats Mixed-Use Project**

Tyee Drive

Tumwater, Washington 98501

#### Tree Protection Plan

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Prepared for: Israel Investments, LLC

JSA Civil, Brandon Johnson

Prepared by: Kevin M. McFarland, SUF

Consulting Urban Forester/ISA Certified Arborist & Tree Risk Assessor Qualified

Date: 12/21/2022

This report has been developed as part of the proposed 15.18-acre Belmont Flats mixed-use project along Tyee Drive, in Tumwater, Washington. This plan will satisfy the requirements as specified by the City of Tumwater Protection of Trees and Vegetation Ordinance (TMC 16.08) and Development Guidelines and Standards.

SOUND URBAN FORESTRY, LLC ~ 360/870-2511 ~ P.O. Box 489, Tahuya, WA 98588

## I. Overall Site & Vegetation Description

The site contains 3 distinct vegetation types. The northern half is dominated by western red cedar and Douglas fir with scattered red alder, shore pine and big leaf maple. The southern half is dominated by red alder with some shore pine and Douglas fir. Along the eastern edge are large Douglas firs with a few shore pine and big leaf maple. The trees are in overall fair to good conditions and with the exception of the alders, are even aged and well-spaced. Understory vegetation is typical of lowland forests and includes salal, mahonia, hazelnut, sword fern and snowberry. The property had been mowed in the last 5-10 years resulting in open areas and lack of regeneration.

## II. Inventory of Trees

A 100% inventory of all trees measuring 6" and greater within the parcels was conducted in December 2022. This information is presented in the table below.

**Table 1. Inventory of Trees within Property**

Species	DBH	Number of Trees
Big Leaf Maple	6-46"	198
Western Red Cedar	6-36"	93
Douglas Fir	6-38"	184
Shore Pine	8-24"	63
Grand Fir	8-24"	3
Red Alder	8-26"	5
Bird Cherry	12-32"	6
Bitter Cherry	12-32"	1
Pacific Dogwood	8-16"	7
Western Hemlock	14"	1
		<b>Total = 561</b>

### Landmark Trees

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

### Off-Site & Edge Trees

No offsite trees were identified with the potential of impacts.



### III. Tree Retention Calculations

Trees to be retained are located within the Tree Protection Open Space in the southeast corner of the project. A summary of those trees can be found within Table 2. Per the TMC, trees that measure 24" and greater count as two.

**Table 2. Inventory of Trees to be Retained within Tree Protection Open Space**

Species	DBH	Number of Trees	Count Toward Retention
Big Leaf Maple	6-24"	6	6
Big Leaf Maple	24"+	4	8
Western Red Cedar	36"	1	2
Douglas Fir	24"+	3	6
Red Alder	26"	1	2
Pacific Dogwood	8-16"	5	5
Bitter Cherry	12" & 32"	2	3
			<b>Total = 32</b>

**Table 3. Summary of Tree Retention Calculations**

Gross Acreage (15.18 – 1.12 Dedicated ROW)	14.06
Total Trees Within Site (Table 1)	561
20% Tree Retention	112 Trees
*12 Trees/ Acre Retention	169 Trees
Proposed Tree Retention	32 Trees
Shortfall on Required Retention	137 Trees
Required Replanting (3:1)	411 Trees

\*This is the greater amount and therefore required by TMC

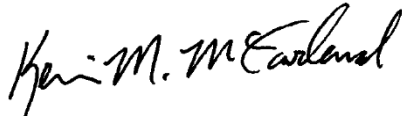
### IV. Replanting

This project falls short of the minimum retention by 137 trees. Because it would be possible to meet that minimum, the applicant will be required to replant at a rate of 3:1 within the site. Per the standards outlined in TMC 16.08.070, priority must be given to replanting within the tree protection open space in order to obtain 80% coverage in 15 years. There is ample room within the open space for replanting. These requirements will be addressed with the submitted landscape plans.

#### IV. Tree Protection

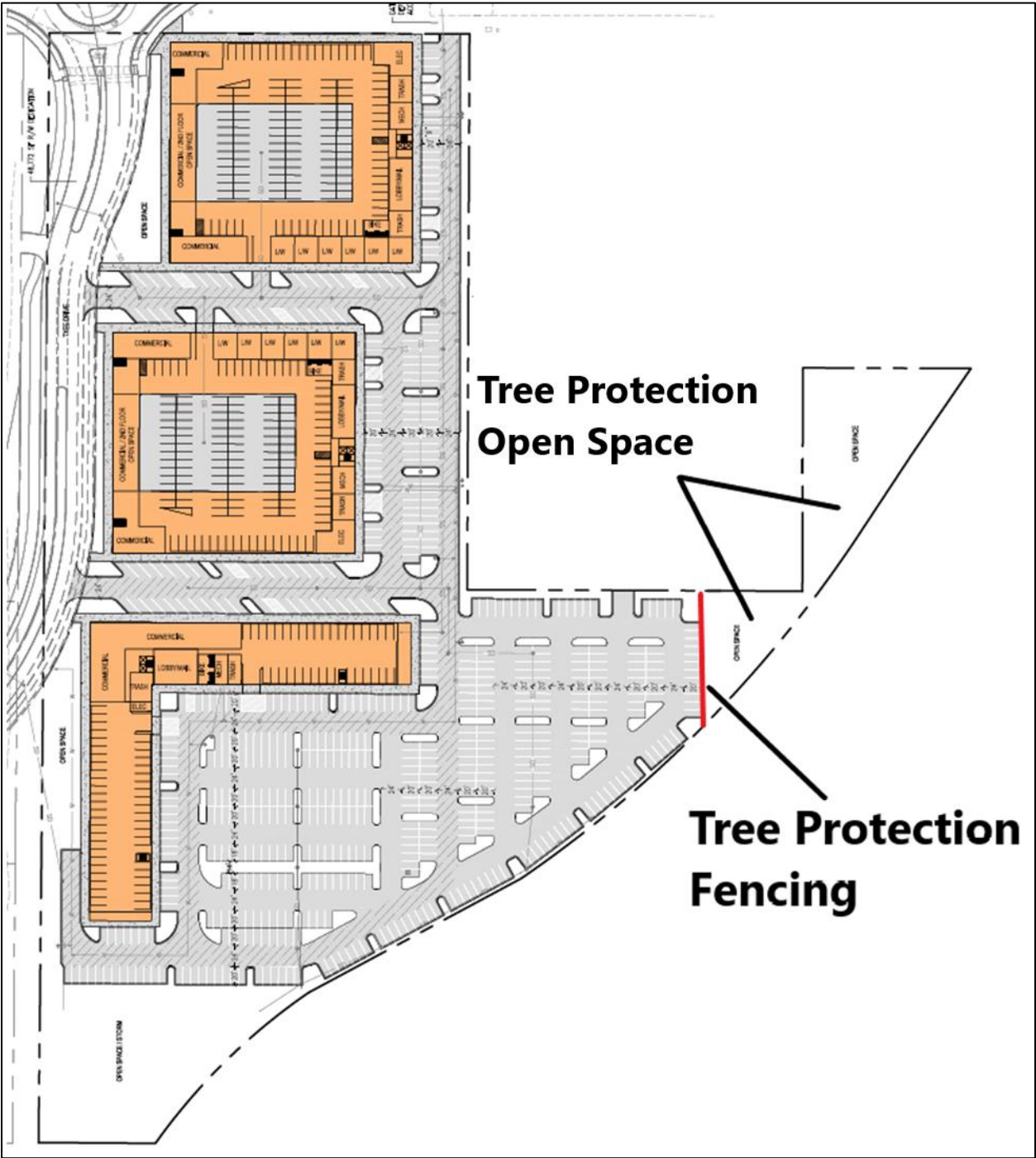
Due to the limited access of the Tree Protection Open Space, protection fencing will only be necessary along the western most perimeter, as shown on the attached site plan. Fencing will meet the City's standards and be installed prior to any site work.

Professionally Submitted,



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

Location of Tree Protection Open Space and Recommended Tree Protection Fencing



Belmont Flats

# WASHINGTON FORESTRY CONSULTANTS, INC.

## FORESTRY AND VEGETATION MANAGEMENT SPECIALISTS



O: 360/943-1723  
C: 360/561-4407

9136 Yelm Hwy SE  
Olympia, WA 98513

- Preliminary Tree Protection Plan-

### YORKSHIRE PROJECT

Tumwater Blvd. SW  
Tumwater, Washington

Prepared for: Glenn Wells Architects

Prepared by: Washington Forestry Consultants, Inc.

Date: December 1, 2022

The project proponent is proposing to construct a 1,150-unit multi-family complex on three parcels totaling 25.52 acres between Tumwater Blvd. SW and Israel Road SW in Tumwater, WA. Washington Forestry Consultants, Inc. was retained to examine the trees on these proposed new project parcels.

### Scope of Work

The purpose of the evaluation was to:

1. Complete an inventory of existing trees, and
2. Make recommendations for retention and/or replacement as per Chapter 16.08.070, the Tumwater Tree Protection Ordinance.
3. Prepare a tree protection plan.

### Methodology

WFCI has inventoried all trees 6-inches and larger diameter at breast height (DBH) in the proposed project area using standard forestry sampling methodology. Nineteen variable area plots were installed on a systematic grid across the site. The plot locations are marked in the field with pink and black striped flagging. Data from the counts of significant trees were entered into SuperAce®, a forest inventory software program that projected the total number of significant trees in the buildable area of the project. This plot data will be used to determine the tree retention requirement. Sampling was designed to, and achieved a 95% confidence level for the projection of the population of significant trees.

## Yorkshire Project – Preliminary Tree Protection Plan

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The tree evaluation phase used methodology developed by Matheny and Clark (1998)<sup>1</sup> and the International Society of Arboriculture.

### Soils and Site Description

The project includes parcels: 12704431300 (8.43-acres), 12704440103 (16.18-acres), and 12704440100 (0.91-acres) located in Sec. 4, T17N, R2W, W.M., City of Tumwater, Thurston County, Washington.

The topography of the project site is flat to gently rolling. It is bordered by Israel Road SW and an undeveloped lot to the north, an undeveloped lot to the east, Tumwater Blvd. SW to the south, and an apartment complex, four undeveloped lots, and a veterinary clinic to the west. There are no improvements on the site.

According to the Natural Resource Conservation Service there are two soil types on the parcels; the Cagey loamy sand, and the Nisqually loamy fine sand.

The first soil type is the Cagey loamy sand, a very deep, moderately well drained soil found on terraces. It formed in sandy glacial drift. Permeability is rapid. Available water capacity is moderate. The effective rooting depth for trees is 60 inches or more. A seasonal high-water table is at a depth on 18 to 30 inches from November to April. Runoff is slow and the hazard of erosion is slight. Windthrow hazard is slight under normal conditions. This is the dominant soil type on the site.

The second soil type is the Nisqually loamy fine sand, a very deep, somewhat excessively drained soil found on terraces. It is formed in sandy glacial outwash. Permeability is moderately rapid in the surface layer and very rapid in the substratum. Available water capacity is moderate. The effective rooting depth for trees is 60 inches or more. The potential for windthrow of trees is slight under normal conditions. New trees require irrigation for establishment.

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<sup>1</sup> Nelda Metheny and James R. Clark. Trees and Development: A Technical Guide to Preservation of Trees during Land Development. International Society of Arboriculture, Champaign, IL.



## Yorkshire Project – Preliminary Tree Protection Plan

**Figure 1: Yorkshire Project soil map.**



20 – Cagey loamy sand

73 – Nisqually loamy fine sand

## Existing Trees

There are four distinct forest cover types on the site.

Type I. – Type I (8.59-acres) is a well-stocked stand of bigleaf maple (*Acer macrophyllum*), black cottonwood (*Populus trichocarpa*), Douglas-fir (*Pseudotsuga menziesii*), grand fir (*Abies grandis*), red alder (*Alnus rubra*), western redcedar (*Thuja plicata*), and western hemlock (*Tsuga heterophylla*). The diameter of the trees in the stand range in size from 6 to 48 inches DBH. There were few trees in the small diameter classes, most trees were larger than 20 inches DBH. The stand was thinned in the early 2000's. A summary of tree species, diameter range, trees per acre, number of trees and the percent composition of each species are provided in Table 1. The condition of the trees ranges from 'Very Poor' to 'Good'. There are many quality trees in this type to retain.



**Photo 1: Typical trees in Cover Type I.**



## Yorkshire Project – Preliminary Tree Protection Plan

Table 1. -- Inventory summary for forest cover Type I.

Species	DBH Range	Trees/Acre	# of Trees	% Composition
Bigleaf Maple	6 – 38	30	258	37%
Cottonwood	22 – 36	2	17	2%
Douglas-fir	21 – 40	12	103	15%
Grand Fir	25 – 32	2	17	2%
Red Alder	15 – 18	7	60	9%
Western Redcedar	13 – 48	27	232	33%
Western Hemlock	26	1	9	2%
<b>Total</b>	<b>6 – 48</b>	<b>81</b>	<b>696</b>	<b>100%</b>

The understory of this type includes salal (*Gaultheria shallon*), western hazel (*Corylus cornuta*), Oregon grape (*Mahonia nervosa*), sword fern (*Polystichum munitum*), other broadleaf weeds, and grasses.

Type II. – Type II (8.59-acres) is a very poorly stocked stand of bigleaf maple, Douglas-fir, western redcedar, and western hemlock. The area was previously cleared of most trees. The type was not replanted after it was harvested. A summary of tree species, diameter range, trees per acre, number of trees and the percent composition of each species are provided in Table 2. The condition of the trees ranges from ‘Very Poor’ to ‘Good’. Only the conifer trees in this type would be suitable for retention.



**Photo 2: Typical appearance Cover Type II.**



## Yorkshire Project – Preliminary Tree Protection Plan

Table 2. -- Inventory summary for forest cover Type II.

Species	DBH Range	Trees/Acre	# of Trees	% Composition
Bigleaf Maple	28	1	9	10%
Douglas-fir	22 – 35	5	43	50%
Western Redcedar	25 – 40	2	17	20%
Western Hemlock	18	2	17	20%
<b>Total</b>	<b>18 – 40</b>	<b>10</b>	<b>86</b>	<b>100%</b>

The understory of the type includes salmon berry (*Rubus spectabilis*), bitter cherry (*Prunus emarginata*), western hazelnut, Scotch broom (*Cytisus scoparius*), trailing blackberry (*Rubus ursinus*), Himalayan blackberry (*Rubus armeniacus*), broadleaf weeds and grasses.

Type III. – Type III (3.49-acres) is a moderately stocked stand of lodgepole pine (*Pinus contorta*), bigleaf maple, black cottonwood, noble fir (*Abies procera*), red alder, and western redcedar. The type was also thinned in the early 2000's. The main part of the stand is lodgepole pine with the secondary species growing on the perimeter. A summary of tree species, diameter range, trees per acre, number of trees and the percent composition of each species are provided in Table 3. The condition of the trees ranges was 'Very Poor to 'Good'. The conifer in this type would be suitable for retention.



**Photo 3: Typical appearance of trees in Cover Type III.**



## Yorkshire Project – Preliminary Tree Protection Plan

Table 3. -- Inventory summary for forest cover Type I.

Species	DBH Range	Trees/Acre	# of Trees	% Composition
Bigleaf Maple	18	4	14	8%
Cottonwood	18 – 22	17	59	36%
Lodgepole Pine	15 – 22	21	73	44%
Noble Fir	32	1	3	2%
Red Alder	26	2	7	4%
Western Redcedar	34 – 52	3	10	6%
<b>Total</b>	<b>18 - 52</b>	<b>48</b>	<b>166</b>	<b>100%</b>

The understory of the type includes trailing blackberry, Himalayan blackberry, salmon berry, western hazelnut, broadleaf weeds and grasses.

Type IV. – Type IV (4.86-acres) is a moderately stocked stand of bigleaf maple, western redcedar and Douglas-fir. The diameters of trees in the stand range in size from 10 to 52 inches DBH. A summary of tree species, diameter range, trees per acre, number of trees and the percent composition of each species are provided in Table 4. The condition of the trees ranges from ‘Poor’ to ‘Good’. There are some quality trees in this type to retain.



Photo 4: Typical appearance of trees in Cover Type IV.

## Yorkshire Project – Preliminary Tree Protection Plan

Table 4. -- Inventory summary for forest cover Type IV.

Species	DBH Range	Trees/Acre	# of Trees	% Composition
Bigleaf Maple	14 – 38	20	97	36%
Douglas-fir	24 – 34	4	19	7%
Western Redcedar	10 – 52	31	151	57%
<b>Total</b>	<b>10 – 52</b>	<b>55</b>	<b>267</b>	<b>100%</b>

The understory of the type includes salmon berry western hazelnut, Scotch broom (*Cytisus scoparius*), trailing blackberry, Himalayan blackberry, broadleaf weeds and grasses.

**Historic Trees.** -- No Historic Trees occur on the site.

**Specimen Trees.** – No trees were considered to be specimen trees.

**Off-Site Trees.** -- Tree removal on this parcel will increase wind exposure to off-site trees on the undeveloped parcels to the east of the site.

### Tree Protection Areas

The City of Tumwater requires 5% of the total buildable area of the site to be set aside as tree protection area. The site plan provided, with a 5-lane option on Tyee Drive, shows tree protection in three 'Tree Tact Open Space' areas totaling 1.09 acres in the southwest and southeast corners of the site.

### Minimum Stocking Calculation

The City of Tumwater Tree and Vegetation Protection Ordinance requires that 20% of the existing trees (or 12 trees per acre, whichever is larger) be saved on site.

The following is a summary of the proposed tree retention:

Total Project Acreage:	25.52 acres
Total # of trees on the Project	1,215 trees
<b>Required Retention (12 Trees/acre) *</b>	<b>306 trees</b>
Required Retention (20%): **	243 trees
Site Area	25.52 acres
Rights-of-way Dedication	3.82 acres
Buildable Area	21.70 acres
Required Tree Tract Acreage (5% of buildable area)	1.09 acres
Proposed Tree Tract Areas	1.09 acres

## Yorkshire Project – Preliminary Tree Protection Plan

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Planned Tree Retention in Tree Tracts: 91 trees

Shortfall of Required Retention (306 - 91) 215 trees

\* Used for required tree retention calculation.

\*\* Ordinance requires 20% or 12 trees/acre, whichever is greater – Sample calculation.

A Tree Replacement Plan is necessary since planned retention is short of the minimum stocking requirement by 215 trees. The Tumwater tree ordinance requires that 3 replacement trees be planted for every tree short of the required tree retention. This means that **645** trees will need to be replanted on the site in addition to the required landscaping.

### Tree Species for Inter-planting

We recommend that the following conifer tree species be used to interplant any gaps in the tree protection areas:

- Western redcedar
- Douglas-fir
- Incense-cedar
- Austrian pine

The trees should be at least 6-7 foot tall balled and burlap trees with well-developed central leaders.

The landscape plan (prepared by others) should incorporate some deciduous accent and shade trees to provide a mix of color, texture, and size across the site. The street tree selection should correspond to the Tumwater Comprehensive Street Tree Plan recommendations. All tree species should be planted and mulched according to industry standards.

### Tree Protection during Construction

The tree protection fence should be orange mesh plastic, and be erected after logging and clearing, but prior to grading. No trenches, cuts, fills, drainage modification, irrigation lines, storing of materials, equipment operation, or other activity should occur within the critical root zone of protected trees. The tree protection and silt fences should be installed at least 5 feet beyond the driplines of trees to be saved.

If there are to be encroachments on any trees due to any change in the site plan, each tree should be evaluated to determine the impacts on tree survival and safety prior to the impact.

## Pruning

All trees to be retained near structures, streets, or other targets should be crown cleaned to remove dead, dying, diseased, structurally defective, or extra branches. Crown raising or side trimming may be necessary to provide building and ground clearances for sidewalks and parking lots. All pruning should conform to the ANSI A300<sup>2</sup> standards for proper pruning, and be completed by or supervised by an ISA Certified Arborist®.

## Landscape Installation

Grading, rototilling, and installation of irrigation lines should not impact the critical root zones (CRZ) of the protected trees. Noxious vegetation such as blackberry and Scotch broom should be selectively removed from tree tract areas by hand.

If additional fill is required to achieve desired grades, no more than 20% of the protected trees root zone should be covered with fill depths over 2 inches. If impacts must exceed 20% of the CRZ, the tree should be further evaluated by a Washington Forestry Consultants, Inc. (WFCI) to determine if removal and replacement is more appropriate.

## Monitoring

Tree protection fences should be inspected by WFCI after installation to insure that they are properly located and installed. The fences should be maintained until installation of the final landscaping.

---

<sup>2</sup> American National Standard ANSI A300 (Part 1). 2008. Pruning for Tree Care Operations - Tree, Shrub, and Other Woody Plant Management - Standard Practices (Pruning). Tree Care Industry Association. Londonderry, NH. 13 pgs.

## Sequence of Events for Tree Protection Activity

1. Stake the clearing limits.
2. Contact WFCI to inspect and re-inspect trees in the final tree protection areas to confirm that no hazardous trees are retained and that tree counts are correct.
3. Applicant can then complete necessary pruning and hazard tree removal from the tree protection areas if necessary.
4. Heavily mark the clearing limits adjacent to the tree tracts.
5. Complete logging and clearing.
6. Install tree protection fences prior to the start of grading as prescribed by WFCI.
7. If unforeseen changes will impact a tree(s), then WFCI should re-evaluate the tree(s) before construction, to design mitigation if necessary.
8. Complete construction.
9. Contact WFCI to inspect all large trees **after** construction is complete to ensure that protected trees were not damaged or made hazardous.
10. Conduct **annual** hazard tree evaluation to determine short- and long-term effects of site changes on protected trees.

## Summary

The 5% tree protection requirement has been met by saving 1.09 acres of tree tract. It is projected that a total of 91 healthy trees can be protected on the site. This is below the minimum requirement of 12 trees per acre (306) by 215 trees.

A total of 645 trees, in addition to the required landscaping, will need to be replanted to meet the city of Tumwater minimum stocking requirement. We suggest that inter-planting the tree tracts with suitable tree species where gaps in the tree cover occur. Payment for the shortfall of planted trees can, with approval, be made to the Tumwater Tree Fund.

Please give us a call if you have any questions.

Respectfully submitted,

Washington Forestry Consultants



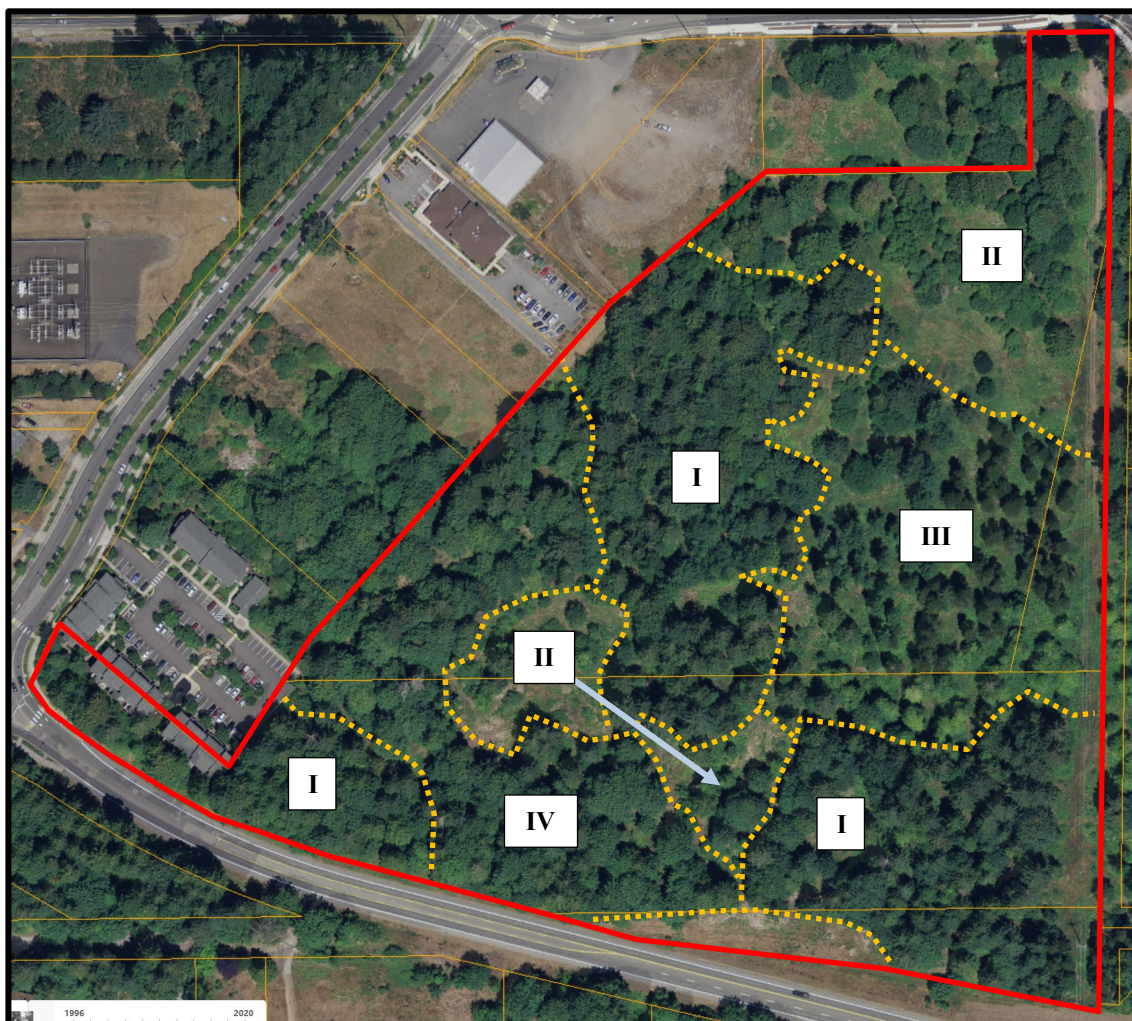
Galen M. Wright, ACF, ASCA  
ISA Bd. Certified Master Arborist PN-129BU  
Certified Forester No. 44  
ISA Tree Risk Assessor Qualified



Joshua Sharpes  
Professional Forester  
ISA Certified Arborist  
Municipal Specialist, PN-5939AM  
ISA Tree Risk Assessor Qualified



## APPENDIX I - Yorkshire Project Site Aerial Photo with Forest Cover Types (Thurston County Geodata 2018)



— Project Boundaries  
 ..... Forest Cover Type Lines

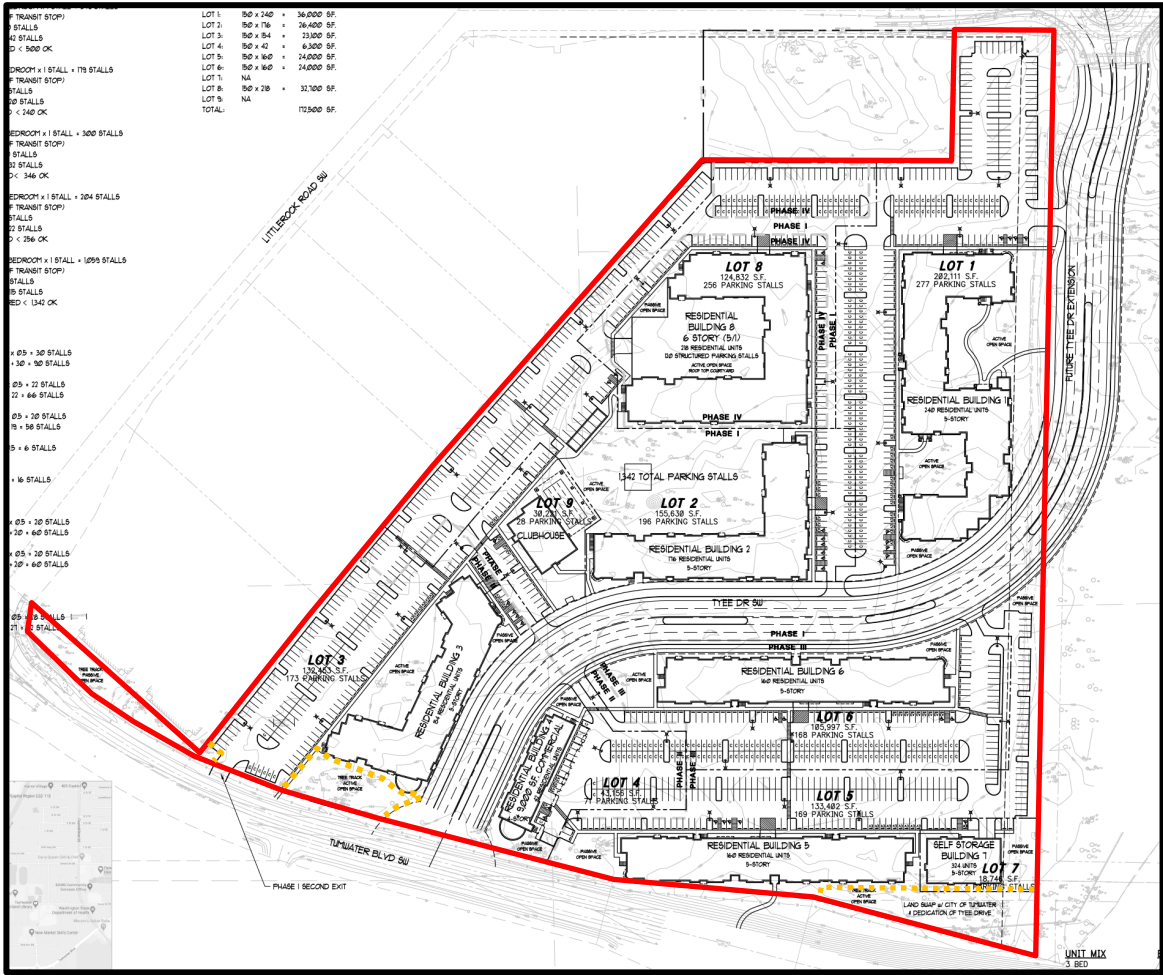
**Type I:** BM, cw, df, gf, ra, rc, wh – 6 – 48 DBH – 81 Trees/acre

**Type II:** DF, bm, rc, wh – 18 – 40" DBH – 10 Trees/acre

**Type III:** LP, bm, cw, nf, ra, rc – 15 – 52" DBH – 48 Trees/acre

**Type IV:** RC, bm, df – 10 – 52" DBH – 55 Trees/acre

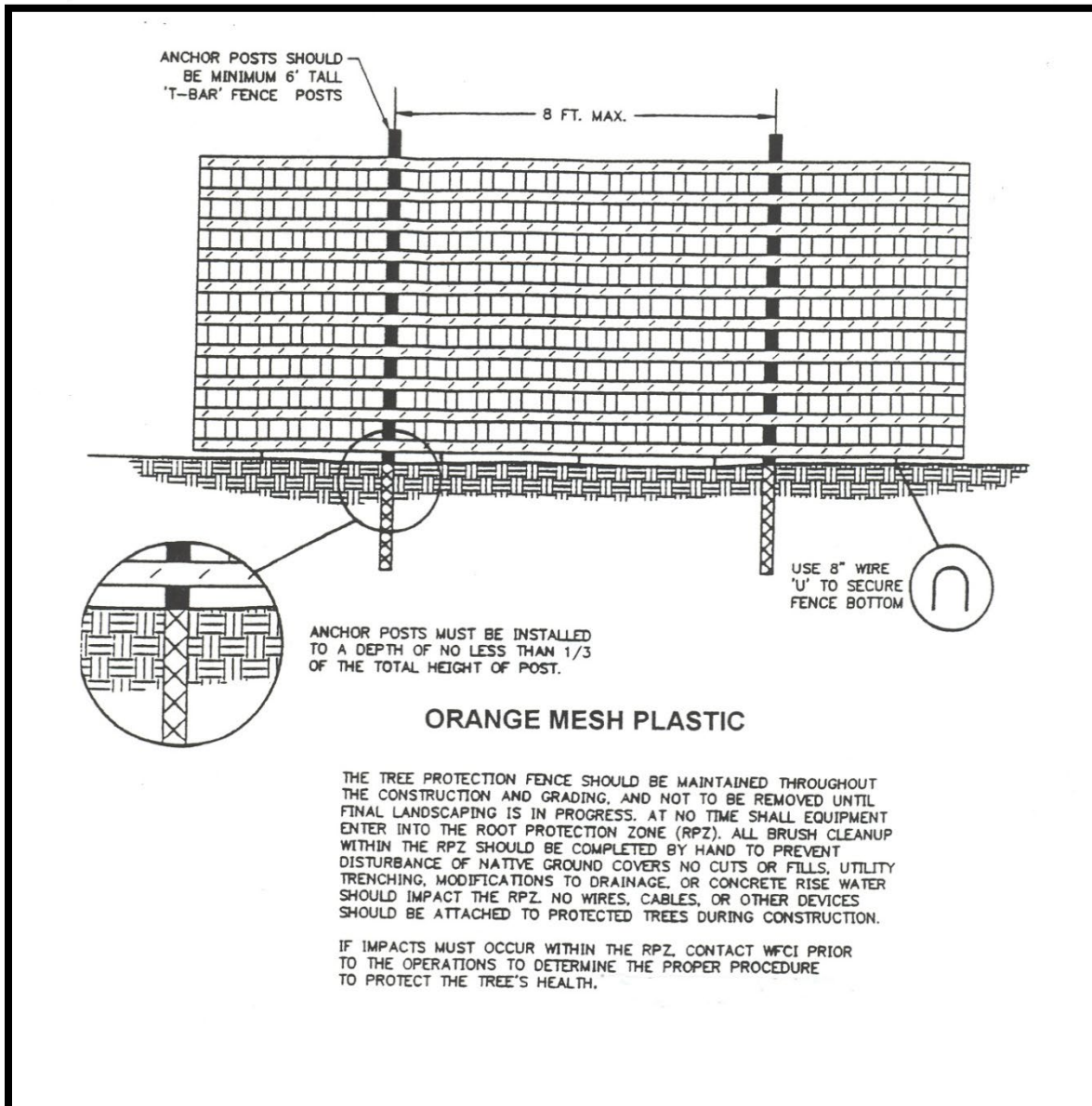
APPENDIX II  
Yorkshire Project Site Plan





## APPENDIX III

### Tree Protection Fence Detail



## APPENDIX IV

### Assumptions and Limiting Conditions

- 1) Any legal description provided to the Washington Forestry Consultants, Inc. is assumed to be correct. Any titles and ownership's to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
- 2) It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations, unless otherwise stated.
- 3) Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, Washington Forestry Consultants, Inc. can neither guarantee nor be responsible for the accuracy of information.
- 4) Washington Forestry Consultants, Inc. shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
- 5) Loss or alteration of any part of this report invalidated the entire report.
- 6) Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of Washington Forestry Consultants, Inc.
- 7) Neither all or any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of Washington Forestry Consultants, Inc. -- particularly as to value conclusions, identity of Washington Forestry Consultants, Inc., or any reference to any professional society or to any initialed designation conferred upon Washington Forestry Consultants, Inc. as stated in its qualifications.
- 8) This report and any values expressed herein represent the opinion of Washington Forestry Consultants, Inc., and the fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence neither of a subsequent event, nor upon any finding in to reported.
- 9) Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
- 10) Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflects the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination of accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the tree or other plant or property in question may not arise in the future.

***Note: Even healthy trees can fail under normal or storm conditions. The only way to eliminate all risk is to remove all trees within reach of all targets. Annual monitoring by an ISA Certified Arborist or Certified Forester will reduce the potential of tree failures. It is impossible to predict with certainty that a tree will stand or fail, or the timing of the failure. It is considered an 'Act of God' when a tree fails, unless it is directly felled or pushed over by man's actions.***

# WASHINGTON FORESTRY CONSULTANTS, INC.

## FORESTRY AND VEGETATION MANAGEMENT SPECIALISTS



O: 360/943-1723  
C: 360/561-4407

9136 Yelm Hwy SE  
Olympia, WA 98513

- Tree Protection Plan-

### KINGSWOOD APARTMENTS

Kingswood Drive SW  
Tumwater, Washington

Prepared for: Glenn Wells Architects

Prepared by: Washington Forestry Consultants, Inc.

Date: July 6, 2022

The project proponent is proposing to build a 180-unit multi-family apartment complex on 3.1-acres at Kingswood Drive SW in Tumwater, WA. Washington Forestry Consultants, Inc. was retained to examine the trees on the proposed project parcel.

### Scope of Work

The purpose of the evaluation was to:

1. Complete an inventory of existing trees, and
2. Make recommendations for retention and/or replacement as per Chapter 16.08.070, the Tumwater Tree Protection Ordinance.
3. Prepare a new tree protection plan.

### Methodology

WFCI has evaluated all trees 6 inches and larger diameter at breast height (DBH) in the proposed project area, and assessed their potential to be incorporated into the new project. The parcel was located and identified on plans provided to WFCI. The tree evaluation phase used methodology developed by Matheny and Clark (1998)<sup>1</sup> and the International Society of Arboriculture.

<sup>1</sup> Nelda Metheny and James R. Clark. Trees and Development: A Technical Guide to Preservation of Trees during Land Development. International Society of Arboriculture, Champaign, IL.

## Soils and Site Description

The project includes parcel number: 12703240100 located in Sec. 03, T17N, R2W, W.M., City of Tumwater, Thurston County, Washington.

The topography of the project site is flat. It is bordered by Kingswood Drive SW to the north, Tyee Drive SE to the east, a Toyota dealership to the south, and a new multi-family development to the west. The parcel is sparsely stocked with scattered open grown trees. The ages of the trees are approximately 10 to 40 years old. There are no improvements on the site.

According to the Thurston County Soil Survey, the one soil type located on the site is the Nisqually loamy fine sand, a very deep, somewhat excessively drained soil found on terraces. It formed in sandy glacial outwash. Permeability is moderately rapid in the surface layer and very rapid in the substratum. Available water capacity is moderate and effective rooting is over 60 inches. Windthrow hazard is slight under normal conditions. Droughtiness during the summer months may cause seedling mortality.

**Figure 1: Soil map of Kingswood Apartments Site.**



**73 - Nisqually loamy fine sand**

## Existing Trees

There is one forest type on the 3.1-acre project area.

Type I: This type contains all trees in the project area. There are three black locust (*Robinia pseudoacacia*) and 10 shore pine (*Pinus contorta*) trees growing in the type. The trees range from 5 to 20 inches DBH. The condition of the trees ranges from ‘Dead’ to ‘Fair’. Black locust however, is considered to be an invasive species and not recommended for retention on new projects. The following Table 1 is a list of all trees on the site.

Table 1. Inventory of trees on Kingswood Drive Apartments Site.

#	Species	DBH (in.)	Condition	Savable Based on Tree Condition Only? Yes or No	Minimum Root Protection Zone (ft.) if Saved	Project Plan Save or Remove	Notes
1	Shore Pine	8 – 12	Poor	No		Remove	Poor form, broken tops
2	Shore Pine	9 – 12	Dead	No		Remove	
3	Shore Pine	9	Fair	Yes	6	Remove	
4	Shore Pine	8	Fair	Yes	6	Remove	
5	Shore Pine	12	Fair	Yes	8	Remove	
6	Shore Pine	10 – 20	Fair	Yes	17	Remove	3 stems
7	Shore Pine	6	Fair	Yes	6	Remove	
8	Shore Pine	9	Fair	Yes	6	Remove	
9	Shore Pine	7	Fair	Yes	6	Remove	
10	Shore Pine	6	Fair	Yes	6	Remove	
11	Black Locust	7,8	Poor, invasive;	No		Remove	Poor form, growing in fence
12	Black Locust	6 – 7	Poor, invasive;	No		Remove	Poor form, growing in fence
13	Black Locust	5,6	Poor, invasive;	No		Remove	Poor form, growing in fence

The understory of the type is grass, Scotch broom (*Cytisus scoparius*), and Himalayan black berry (*Rubus armeniacus*).





Photo 1. View of cover type I and trees 1 & 2 on Kingswood Apartments Site.

**Historic Trees.** -- No Historic Trees occur on the site.

**Specimen Trees.** – No trees were considered to be specimen trees.

**Off-Site Trees.** – No offsite trees will be adversely affected by this project.

## Tree Protection Areas

Due to poor tree quality, the invasive nature of black locust, and the tree locations being under the footprint of improvements, no trees are planned to be retained.

## Minimum Stocking Calculation

The City of Tumwater Tree and Vegetation Protection Ordinance requires that 20% of the existing trees (or 12 trees per acre, whichever is larger) be saved on site.

The following is a summary of the proposed tree retention:

Total Project Acreage:	3.1 acres
Total # of Healthy Trees on the Project	8 trees
<b>Required Retention (12 Trees/acre) *</b>	<b>37 trees</b>
Required Retention (20%): **	2 trees
Planned Tree Retention:	0 trees
Planned Tree Removal	13 trees
Shortage of Required Retention (37 - 0)	37 trees

\* Used for required tree retention calculation.

\*\* Ordinance requires 20% or 12 trees/acre, whichever is greater – Sample calculation.

According to TMC 16.08.070.R.4: “In situations where a parcel of land to be developed does not meet the retention standards above in an undeveloped state, the applicant shall be required to reforest the site to meet the applicable standard outlined above at a 1:1 ratio as a condition of project approval.” A Tree Replacement Plan is necessary since planned retention is short of the minimum stocking requirement by 37 trees. The Tumwater tree ordinance requires that 37 trees be replanted to meet the 1:1 replacement standard. This plan is providing 80 replacement trees in the landscaping plan.

## Tree Protection during Construction

If trees were saved, the tree protection fence should be orange mesh plastic, and be erected after logging and clearing, but prior to grading. No trenches, cuts, fills, drainage modification, irrigation lines, storing of materials, equipment operation, or other activity should occur within the critical root zone of protected trees. The tree protection and silt fences should be installed at least 5 feet beyond the driplines of trees to be saved.

If there are to be encroachments on any large diameter trees due to any change in the site plan, each tree should be evaluated to determine the impacts on tree survival and safety prior to the impact.

## Pruning

If trees were retained, then all trees to be retained near structures, streets, or other targets should be crown cleaned to remove dead, dying, diseased, structurally defective, or extra branches. Crown raising or side trimming may be necessary to provide building and ground clearances for sidewalks and parking lots. All pruning should conform to the ANSI A300<sup>2</sup> standards for proper pruning, and be completed by or supervised by an ISA Certified Arborist®.

## Landscape Installation

Grading, rototilling, and installation of irrigation lines should not impact the critical root zones (CRZ) if trees are saved. Noxious vegetation such as blackberry and Scotch broom should be selectively removed from tree tract areas by hand.

If additional fill is required to achieve desired grades, no more than 20% of the protected trees root zone should be covered with fill depths over 2 inches. If impacts must exceed 20% of the CRZ, the tree should be further evaluated by a Washington Forestry Consultants, Inc. (WFCI) to determine if removal and replacement is more appropriate.

## Sequence of Events for Tree Protection Activity

1. Stake the clearing limits.
2. Complete logging.
3. Complete construction.
4. Plant replacement trees.

## Tree Species for Inter-planting

We recommend that the following conifer tree species be used to interplant any gaps in the tree protection areas:

- Western redcedar
- Douglas-fir
- Incense-cedar
- Austrian pine

The trees should be at least 6-7 foot tall balled and burlap trees with well-developed central leaders.

The landscape plan (prepared by others) should incorporate some deciduous accent and shade trees to provide a mix of color, texture, and size across the site. The street tree

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<sup>2</sup> American National Standard ANSI A300 (Part 1). 2008. Pruning for Tree Care Operations - Tree, Shrub, and Other Woody Plant Management - Standard Practices (Pruning). Tree Care Industry Association. Londonderry, NH. 13 pgs.



selection should correspond to the Tumwater Comprehensive Street Tree Plan recommendations. All tree species should be planted and mulched according to industry standards.

### Summary

We propose that **no trees be retained** on the site due to poor tree condition or the invasive nature of the species. Other trees are located under the footprint of improvements and are not particularly significant. A landscape plan using quality tree species will provide high quality trees in 10 years - Versus dying retained trees that are not quality today.

A total of 37 trees are required to be planted to reforest the site to meet the TMC requirement. A total of 80 trees are being planted on the site.

We have suggested some suitable tree species for tree replacement. Payment for the shortfall of planted trees can, with approval, be made to the Tumwater Tree Fund.

Please give us a call if you have any questions.

Respectfully submitted,

Washington Forestry Consultants, Inc.



Galen M. Wright, ACF, ASCA  
ISA Bd. Certified Master Arborist PN-129BU  
Certified Forester No. 44  
ISA Tree Risk Assessor Qualified  
ASCA Tree and Plant Appraisal Qualified



Joshua Sharpes  
Professional Forester  
ISA Certified Arborist®,  
Municipal Specialist, PN- 5939AM  
ISA Tree Risk Assessor Qualified

APPENDIX I

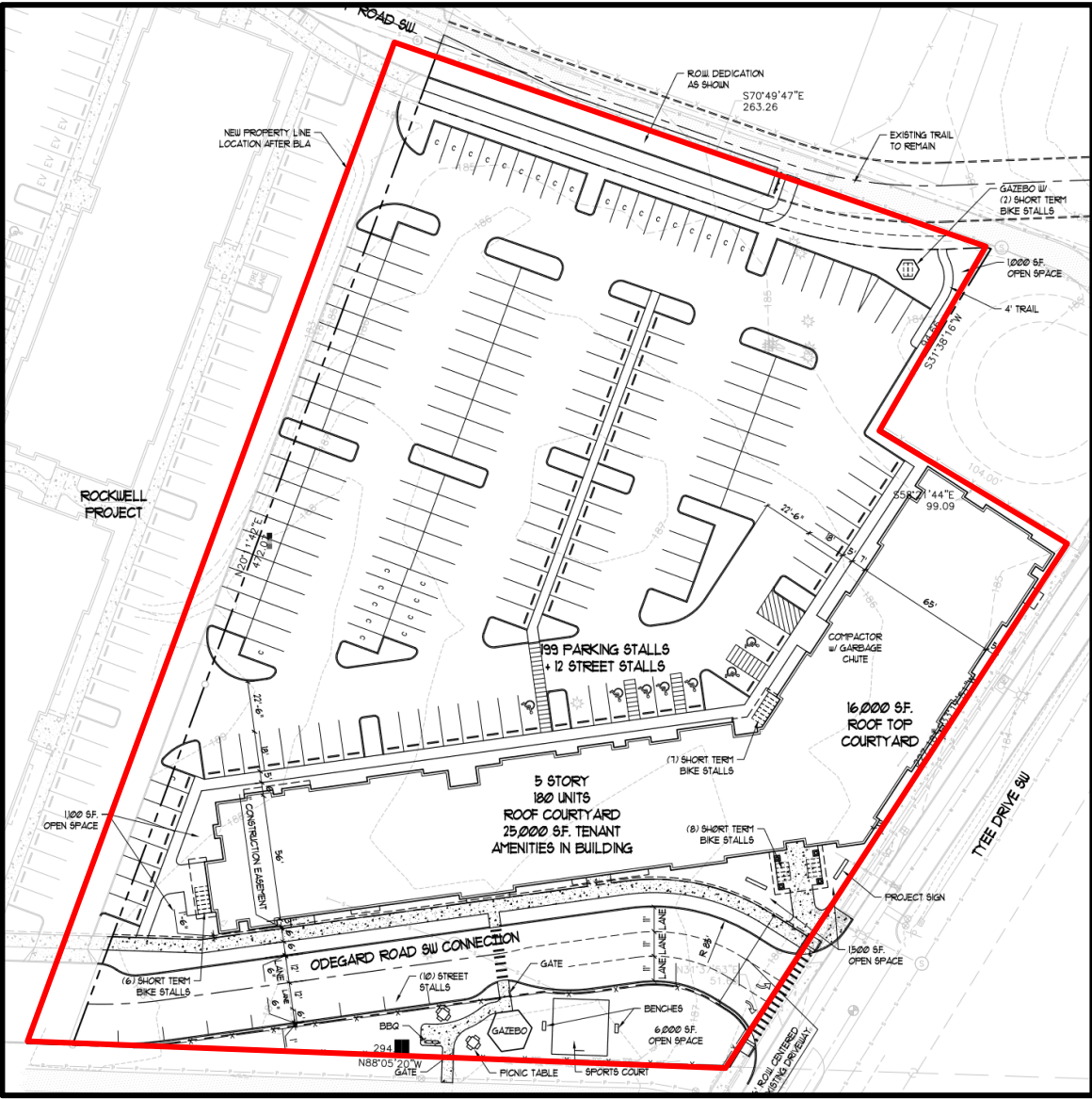
Kingswood Drive Apartments Site Tree Locations  
(Thurston County Geodata 2020)



- Project and Cover Type Boundary
- ★ Healthy Tree
- ★ Unhealthy Tree

APPENDIX II

Kingswood Drive Apartments Site Plan

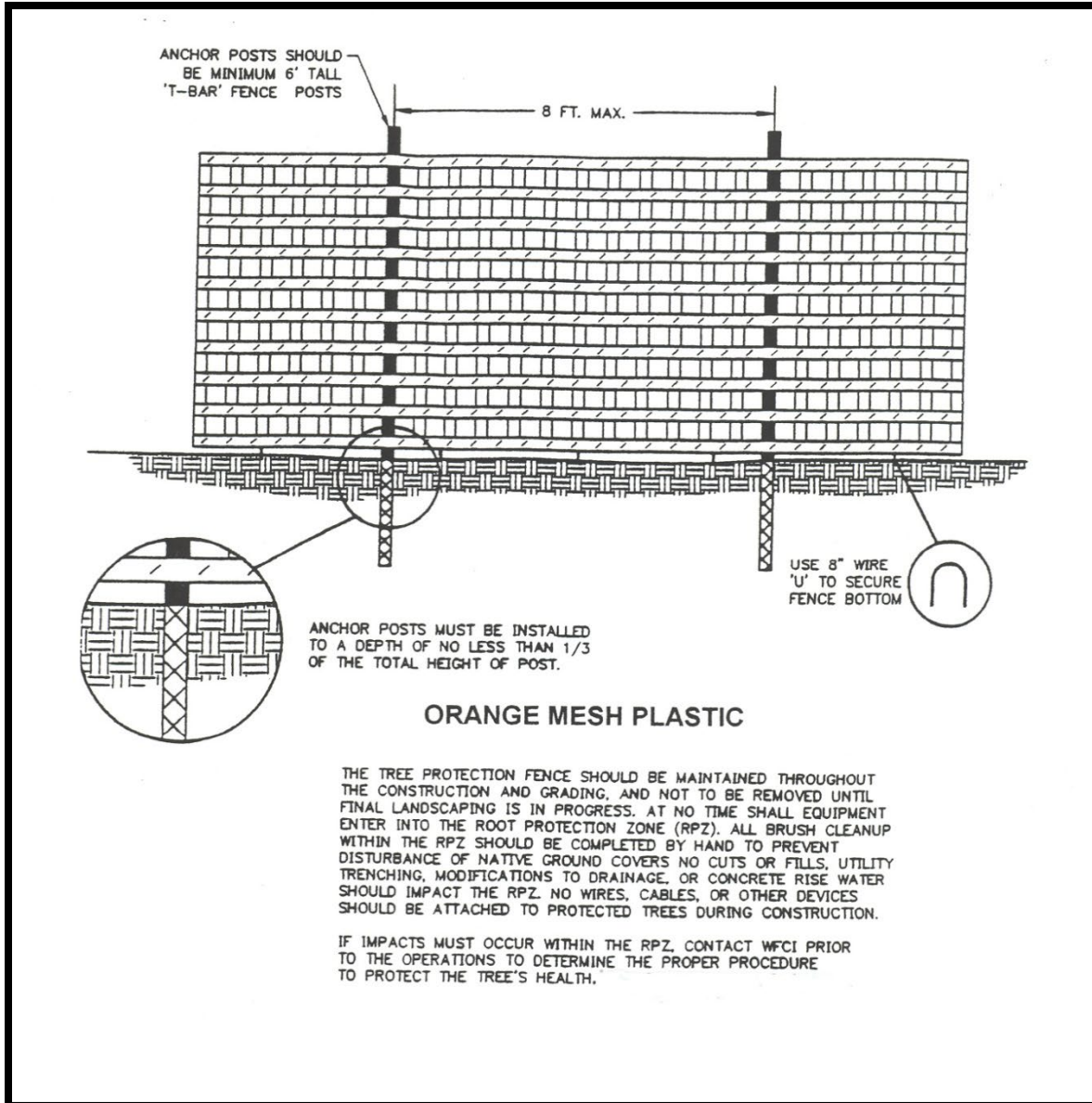


— Project Boundary



## APPENDIX III

### Tree Protection Fence Detail



## APPENDIX IV

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***Note: Even healthy trees can fail under normal or storm conditions. The only way to eliminate all risk is to remove all trees within reach of all targets. Annual monitoring by an ISA Certified Arborist or Certified Forester will reduce the potential of tree failures. It is impossible to predict with certainty that a tree will stand or fail, or the timing of the failure. It is considered an 'Act of God' when a tree fails, unless it is directly felled or pushed over by man's actions.***



PLANT LIST									
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	INSTALLED SIZE	MATURE HEIGHT	MATURE DIA.			TYPE OF PLANT
TREES									
⊗	AMELANCHIER LAEVIS	ALLEGHENY SERVICEBERRY	2	2 1/2" CALIPER	20'	20'	NN		D
⊗	CHAMAECYPARIS NOOTKATENSIS 'JUBILEE'	ALASKAN CEDAR	14	6" TALL	20'	5'	DT NN		EG
⊗	PICEA OMORIKA 'BURNS'	BRUNS SERBIAN SPRUCE	13	6" TALL	30'	10'	DT NN		EG
⊗	SANGO KAKU MAPLE	CORAL BARK MAPLE	3	2 1/2" CALIPER	15'	15'	DT NN		D
⊗	PYRUS CALLERYANA 'CAPITAL'	CAPITAL PEAR	12	2 1/2" CALIPER	25'	25'	DT NN		D
⊗	MALUS 'JFS-KWS' ROYAL RAINDROPS	ROYAL RAINDROPS CRABAPPLE	30	2 1/2" CALIPER	20'	15'	DT NN		D
⊗	ACER PALMATUM	JAPANESE MAPLE	12	2 1/2" CALIPER	15'	15'	DT NN		D
⊗	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	4	2 1/2" CALIPER	35'	25'	DT NN		D
SHRUBS									
⊗	NANDINA DOMESTICA 'FIRE POWER'	HEAVENLY BAMBOO	244	2 GALLON	2'	2'	DT NN		EG
⊗	NANDINA DOMESTICA	HEAVENLY BAMBOO	8	5 GALLON	6'	4'	DT NN		EG
⊗	PIERIS VARIEGATA	VARIEGATED PIERIS	33	5 GALLON	4'	4'	DT NN		EG
⊗	RHODODENDRON IMPEDITUM	DWARF PURPLE RHODODENDRON	156	5 GALLON	1	2'	DT NN		EG
⊗	THUJA OCCIDENTALIS 'SMARAGO'	EMERALD GREEN ARBORVITAE	7	5' TALL	12'	4'	DT NN		EG
GROUND COVER									
⊗	ARCTOSTAPHYLOS UVA-URSI 'MASSACHUSETTS'	KINNINNICK (SPACED @ 3'-0" O.C.)	-	1 GALLON	-	-	-	-	-

DT NN  
DT N  
EG  
C  
D

DROUGHT TOLERANT NON NATIVE  
DROUGHT TOLERANT NATIVE  
EVERGREEN  
CONIFEROUS  
DECIDUOUS

NOTE:  
PLANTS ARE DROUGHT-TOLERANT ONCE ESTABLISHED AND WILL REQUIRE SUPPLEMENTAL WATER THROUGHOUT THE FIRST TWO SUMMERS AT MINIMUM.

Tree Protection Areas

Due to poor tree quality, the invasive nature of black locust, and the tree locations being under the footprint of improvements, no trees are planned to be retained.

Minimum Stocking Calculation

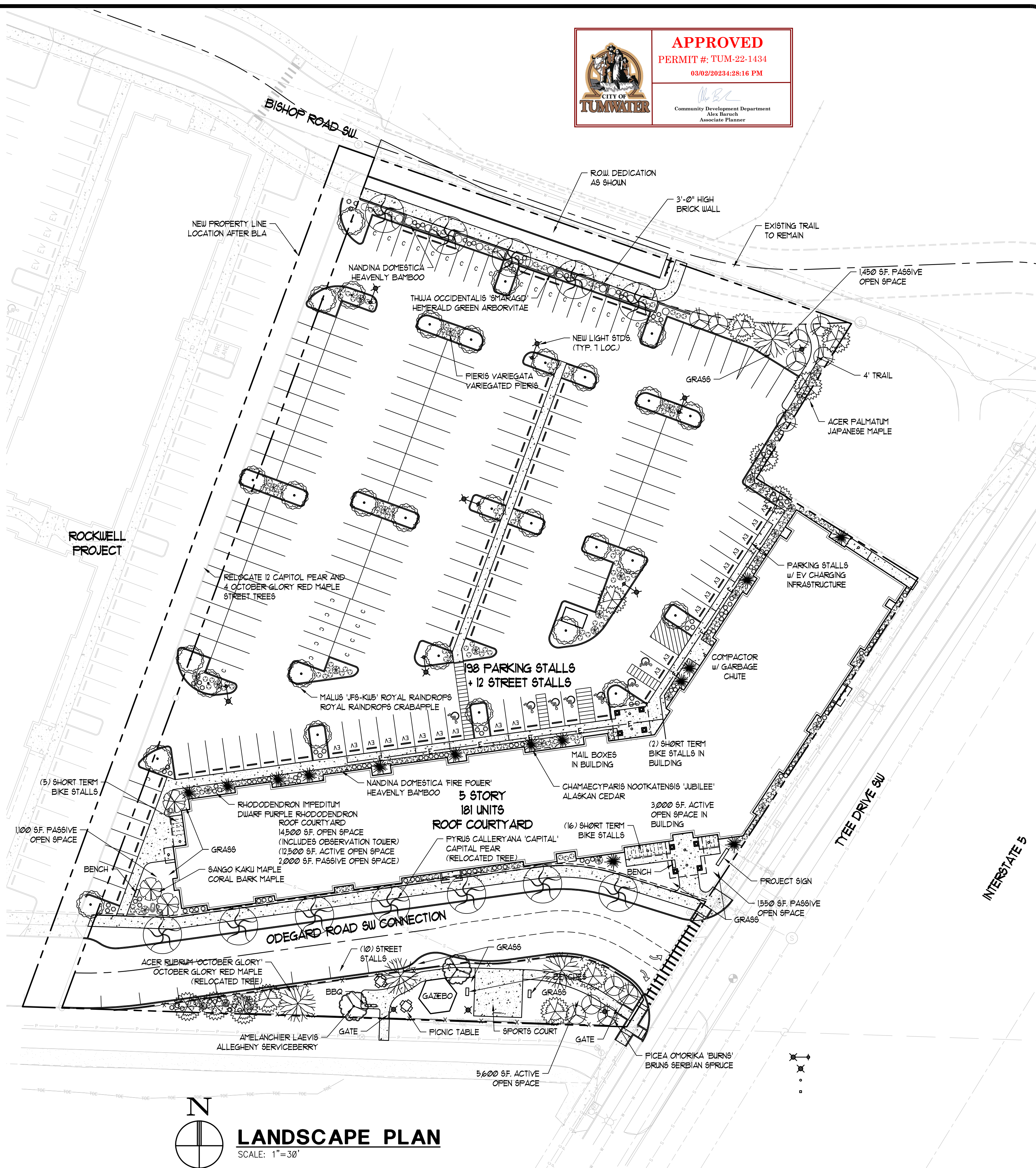
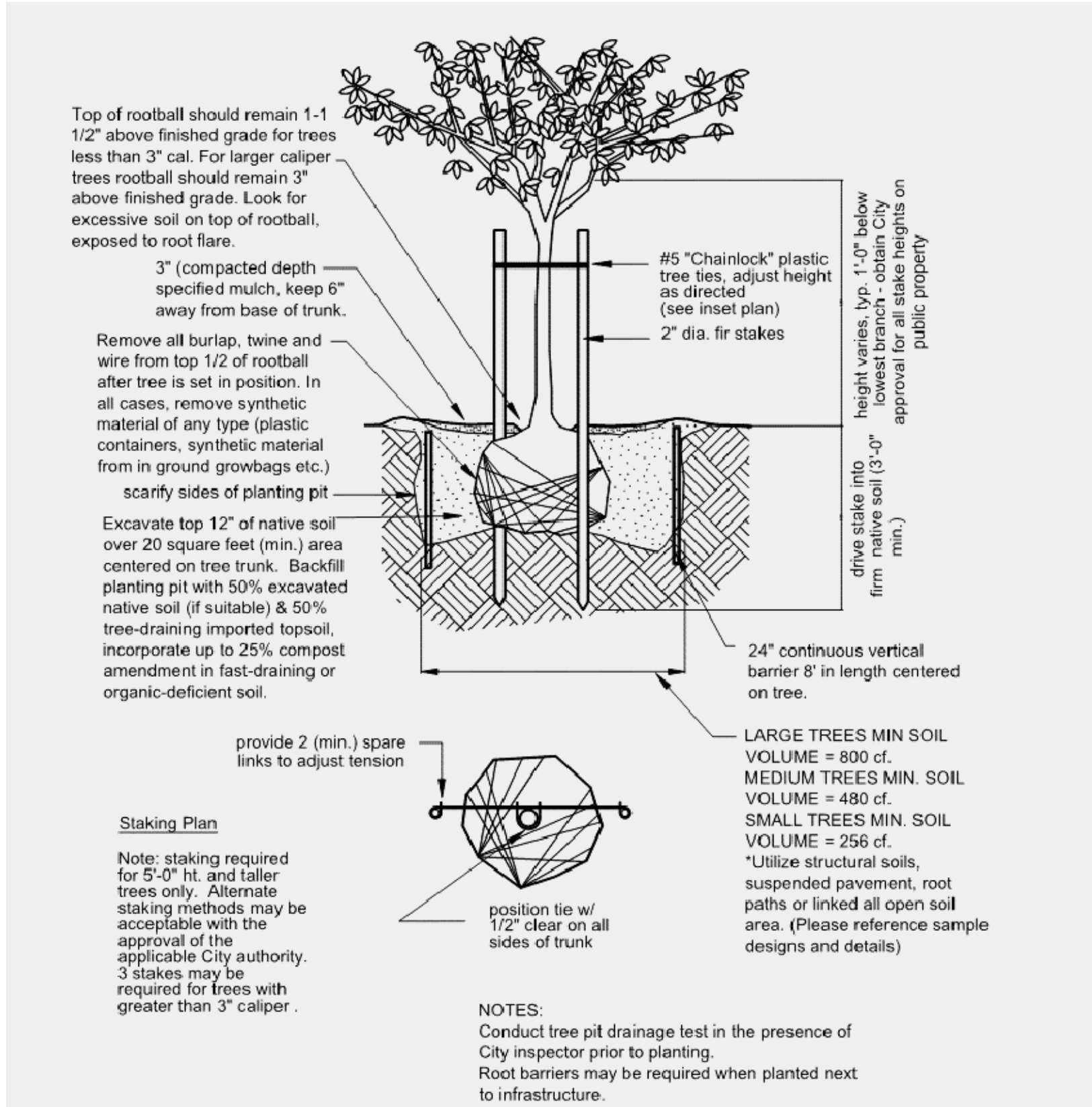
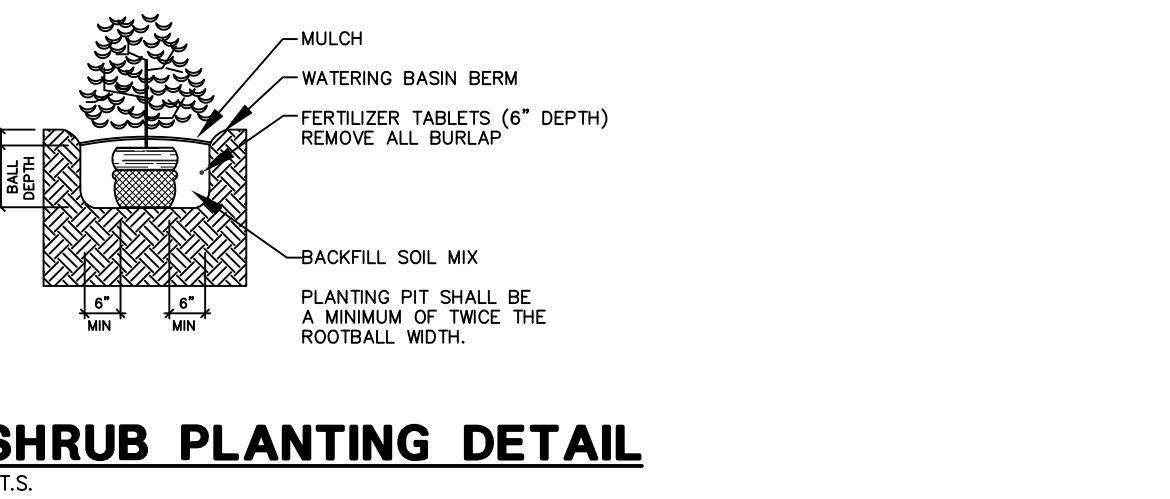
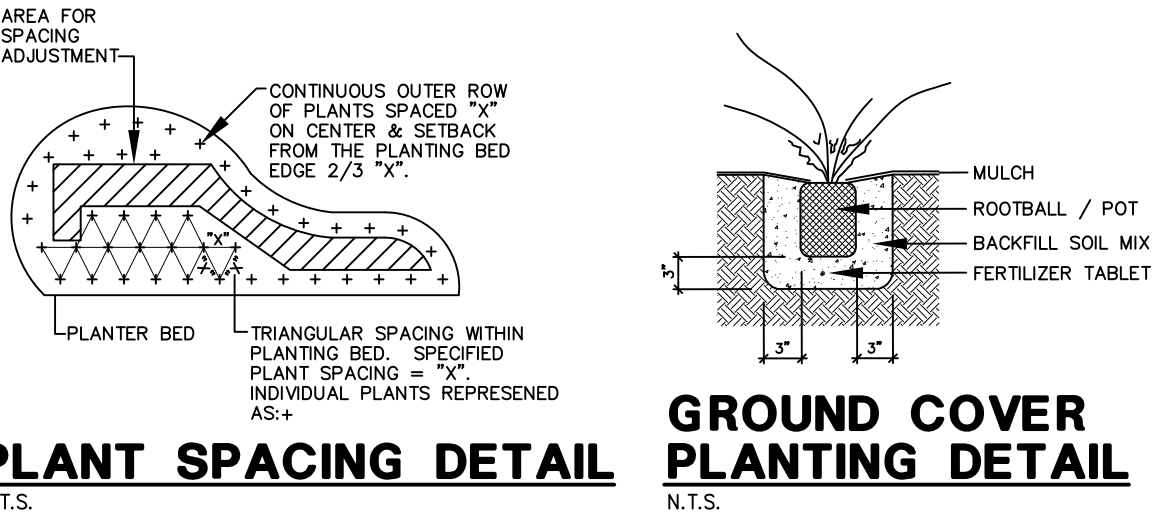
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Total Project Acreage:	3.1 acres
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Required Retention (12 Trees/acre) *	37 trees
Required Retention (20%): **	2 trees
Planned Tree Retention:	0 trees
Planned Tree Removal	13 trees
Shortage of Required Retention (37 - 0)	37 trees

\* Used for required tree retention calculation.  
\*\* Ordinance requires 20% or 12 trees/acre, whichever is greater – Sample calculation.

According to TMC 16.08.070.R.4: "In situations where a parcel of land to be developed does not meet the retention standards above in an undeveloped state, the applicant shall be required to reforest the site to meet the applicable standard outlined above at a 1:1 ratio as a condition of project approval." A Tree Replacement Plan is necessary since planned retention is short of the minimum stocking requirement by 37 trees. The Tumwater tree ordinance requires that 37 trees be replanted to meet the 1:1 replacement standard. This plan is providing 80 replacement trees in the landscaping plan.



date: 02-05-20

drawn: R.C.T.

checked: .

city issue: .

revisions: 07-22-22  
09-09-22  
02-15-23

title: LANDSCAPE PLAN  
KINGSWOOD APARTMENTS  
XX00 TYEE DRIVE  
TUMWATER, WASHINGTON

sheet no. L1.0



TO: Tree Board  
FROM: Alyssa Jones Wood, Sustainability Coordinator  
DATE: July 8, 2024  
SUBJECT: Summer field trip

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1) Recommended Action:

Provide ideas for themes and locations for the 2024 Tree Board summer field trip.

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2) Background:

The Tree Board traditionally holds an annual field trip in the summer months to visit and discuss different tree-related issues or opportunities. In 2022, the field trip focused on visiting recent developments including Kirsop Crossing, Gendlek Short Plat, Skyview Estates, and Tumwater Highlands. In 2023, the field trip was scheduled to visit potential planning sites at stormwater facilities, but a quorum was not met.

At the May 13, 2024 Tree Board meeting, Board Member Chapman suggested Sapp Road Park and the future location of the Operations and Maintenance facility as potential field trip locations.

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3) Alternatives:

☐ Do not hold a Tree Board field trip in 2024.

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4) Attachments: