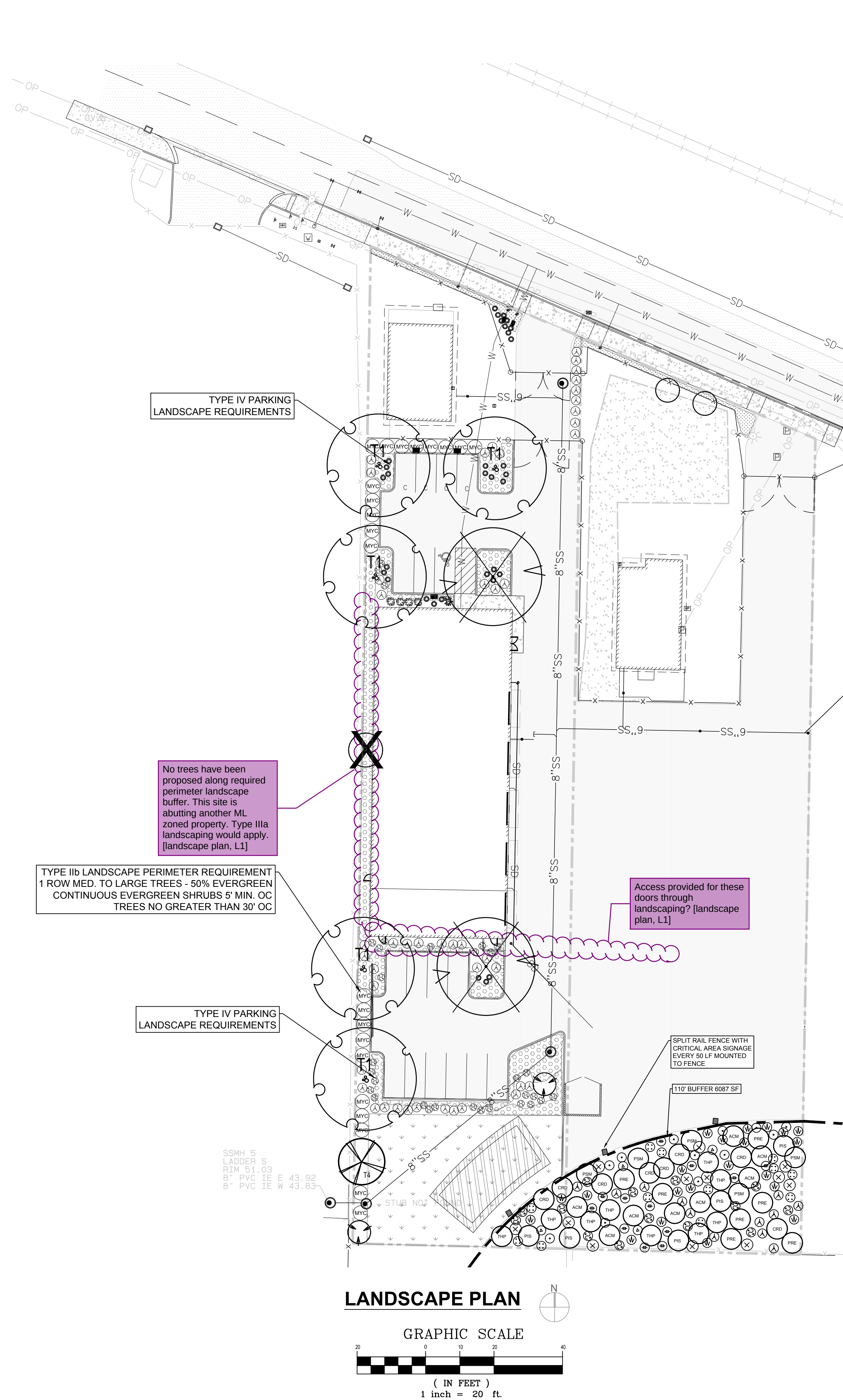
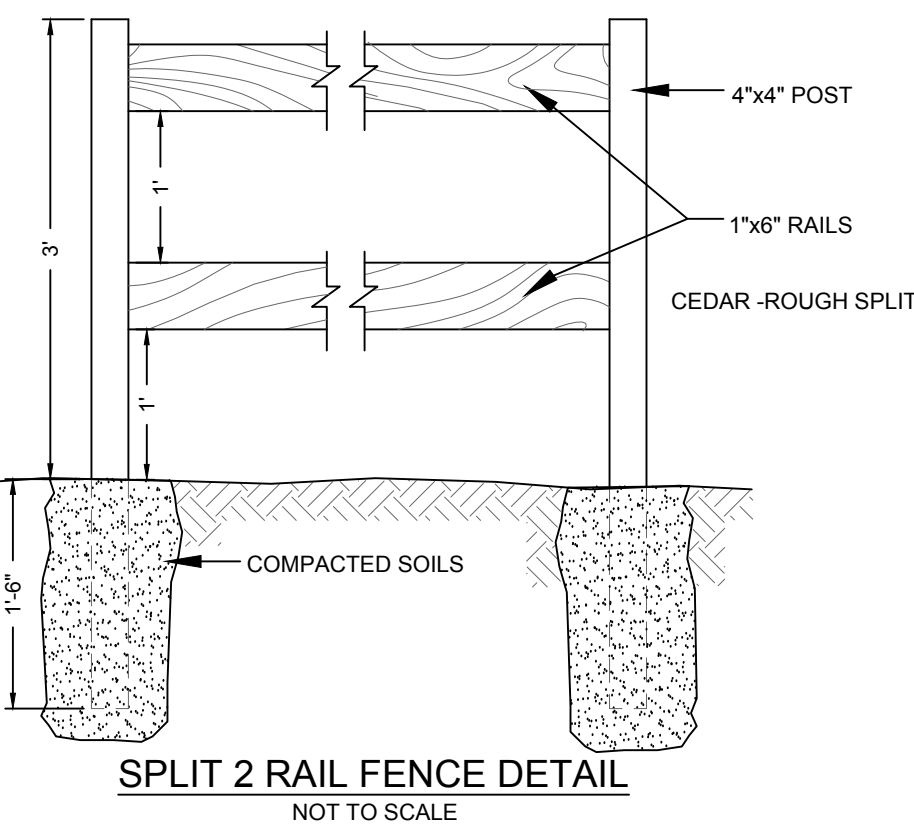
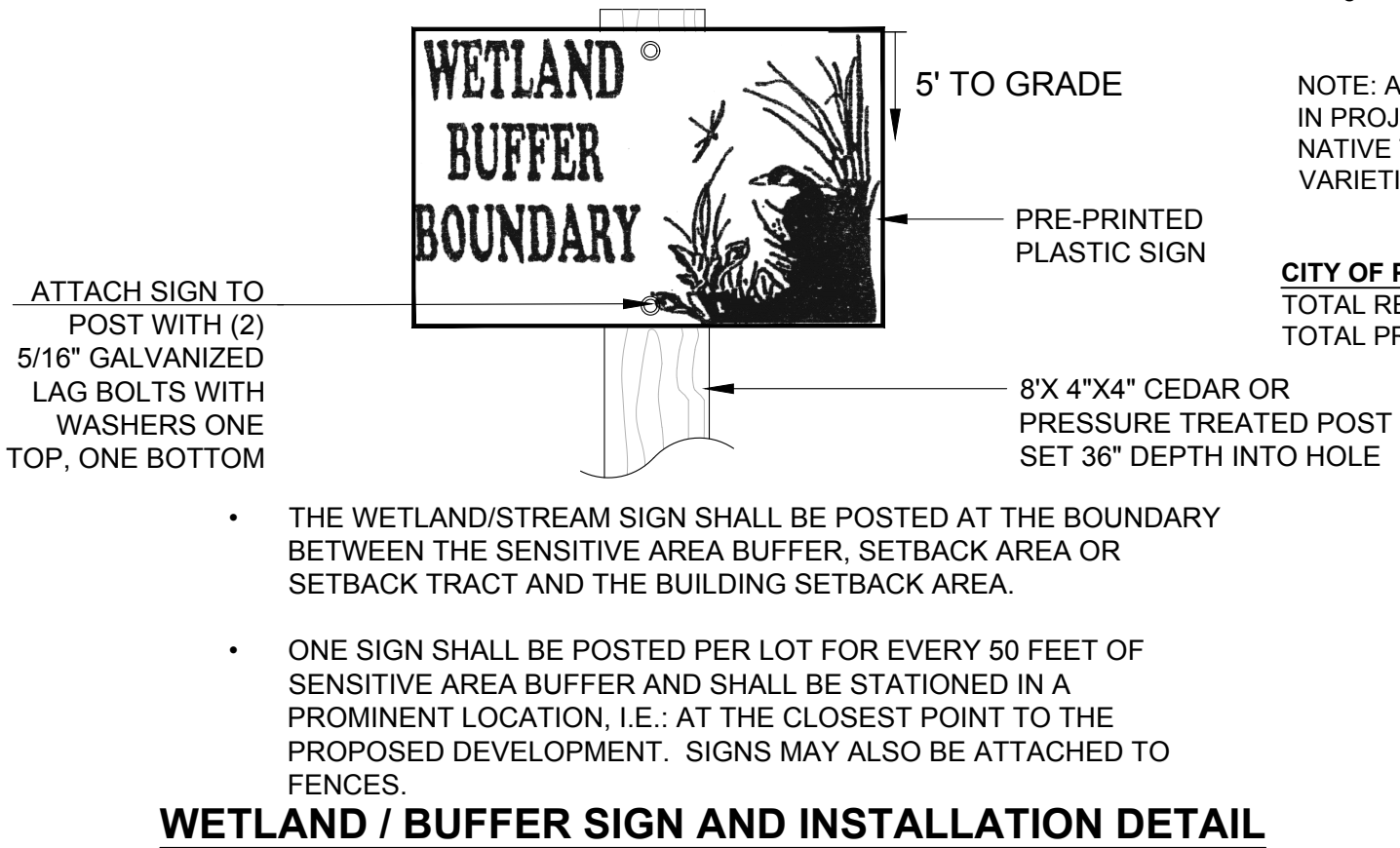




BUFFER PLANT LIST			
SYMBOL	QTY	DESCRIPTION	SIZE
TREES			
ACM	8	Acer macophyllum Big Leaf Maple	2 Gal. Min.
CRD	8	Crataegus douglasii Western Hawthorne	2 Gal. Min.
PCS	5	Picea sitchensis Sitka Spruce	2 Gal. Min.
PBC	7	Prunus emarginata Bitter Cherry	2 Gal. Min.
PDM	5	Pseudotsuga menziesii Douglas Fir	2 Gal. Min.
TRP	9	Thuja plicata Western Red Cedar	2 Gal. Min.
TOTAL	42		
SHRUBS			
Δ	4	Acer circinatum Vine Maple	1 Gal. Min.
Λ	12	Berberis aquifolium Tall Oregon Grape	1 Gal. Min.
○	12	Berberis nervosa Oregon Grape	1 Gal. Min.
⊗	12	Corylus cornuta Hazelnut	1 Gal. Min.
⊕	12	Holodiscus discolor Oceanspray	1 Gal. Min.
⋯	12	Ribes sanguineum Flowering Currant	1 Gal. Min.
W	21	Rosa gymnocarpa Wild Rose	1 Gal. Min.
⊙	14	Symphoricarpos albus Snowberry	1 Gal. Min.
TOTAL	99		

6087 / 43,560 = 0.14 AC
300 TREES PER ACRE = 42 TREES
600 SHRUBS PER ACRE = 84 SHRUBS



PLANT LIST				
SYMBOL	QTY	DESCRIPTION	SIZE	CLASS
TREES				
⊙	5	Ginkgo biloba 'Autumn Gold' Autumn Gold Ginkgo	1.5" Cal. Min. Well-Formed	Medium
⊗	2	Ulmus americana 'Valley Forge' American Elm Valley Forge	1.5" Cal. Min. Well-Formed	Large
⊙	2	Cedrus decurrens (NATIVE) Incense Cedar	5' Ht. Min. Full/Compact	Large
SHRUBS				
MYC	23	Myrica californica (NATIVE) Pacific Wax Myrtle	2 Gal. Min.	
⊕	4	Viburnum davidii David's Viburnum	2 Gal. Min.	
⊗	1	Nandina domestica c. 'Gulf Stream' Gulf Stream Nandina	2 Gal. Min.	
⊙	45	Mahonia aquifolium (NATIVE) Tall Oregon Grape	2 Gal. Min.	
⊙	31	Symphoricarpos albus (NATIVE) Snowberry	2 Gal. Min.	
⊕	32	Mahonia repens (NATIVE) Creeping Oregon Grape	2 Gal. Min.	
⊕	453	Arctostaphylos uva-ursi (NATIVE) Kinnickinnick (2452 sf)	1 Gal. Min. @ 30" O.C. Triangular Spacing	
⊕	86 kinn 1000 bulbs	Arctostaphylos uva-ursi (NATIVE) Kinnickinnick with bulbs: Narcissus trumpet 'King Alfred' &/Or 'Dutch Master' daffodils (467 sf)	1 Gal. Min. @ 30" O.C. Triangular Spacing w/ bulbs @ 6" OC Triangular Spacing	

NOTE: CONTRACTOR SHALL SUBMIT PLANT LIST PRIOR TO PURCHASING AND INSTALLING PLANT MATERIAL. ANY SUBSTITUTIONS SHALL BE APPROVED BY LANDSCAPE ARCHITECT AND CITY.

7.4 Daffodils

The Puyallup area has a long history with daffodil bulb agricultural cultivation. To reflect that cultural heritage, daffodils shall be used in all perimeter yard areas. All perimeter landscape yard areas required by PMC 20.58 shall include Narcissus trumpet 'King Alfred' or 'Dutch Master' in the first 3' of landscape areas behind the property line, planted at 6" on-center. Other groupings of Narcissus shall be used in groupings through landscape areas.

A. Daffodil Bulbs may be interspersed throughout the perimeter landscape areas with standard landscaping shrubs/ground cover/trees, as required.

B. Other varieties of Narcissus trumpet may be used, with the preference of 'King Alfred' or 'Dutch Master' in the frontage areas closest to any property line for visibility from the right of way.

C. Daffodil bulb planting shall be completed at appropriate time of year to allow establishment (September – November). Applicants may be required to post an assignment to secure the installation at the appropriate time of year. Project landscape architect may spec an alternative time of year to plant, such as during the winter or very early spring.

TOTAL TOP SOIL AND MULCH CALCULATIONS

SOIL DEPTH	TOTAL LANDSCAPE AREA SOILS
8"	7,413 sf X (8") .66 / 27=183 CUBIC YARDS

NOTE: A MINIMUM OF 25 PERCENT OF THE SHRUBS AND GROUND COVERS USED IN PROJECTS UNDER THE REQUIREMENTS OF THE PMC AND THE VMS SHALL BE NATIVE TO THE PUGET SOUND REGION (VMS 7.3). 5 NATIVE SHRUBS / GC VARIETIES PROPOSED / 7 SHRUBS =71%

CITY OF PUYALLUP CALCULATIONS

TOTAL REQUIRED SITE LANDSCAPING (20% MIN.)	78,027 SF X .2 =	15,605 SF
TOTAL PROPOSED LANDSCAPING		20,896 SF

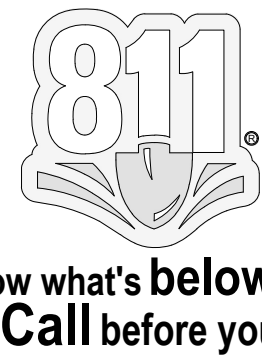
CITY OF PUYALLUP
Planning Division
Approved Landscape Plan
(253) 864-4165

Staff: _____

Date: _____

THIS APPROVAL IS VOID AFTER 180 DAYS FROM APPROVAL DATE. THE CITY WILL NOT BE RESPONSIBLE FOR ERRORS AND/OR OMISSIONS ON THESE PLANS. FIELD CONDITIONS MAY DICTATE CHANGES TO THESE PLANS AS DETERMINED BY THE PLANNING MANAGER, DESIGNER, OR PROJECT PLANNER.

NOTE: If street trees are required, Call Planning Division for final inspection: (253) 864-4165 (Option 3) Root Barriers are required around street trees in accordance with city standard detail. Top soil shall be installed in accordance with city standards - field verification required. Failure to install top soil and root barriers in accordance with city standards may result in rejection of installation.



Nature By Design
Landscape Architecture

1320 Alameda Avenue, Suite B, Everett, WA 98206
www.naturebydesigninc.com
253.460.6067

TODD RD BUFFER PLANTING
212 & 302 TODD RD,
PUYALLUP, WA

REVISIONS:
D. REVISED PER NEW SITE LAYOUT

DRAWING ISSUED FOR:
AGENCY REVIEW
DATE: JUNE 25, 2026

STATE OF WASHINGTON
KATHERINE OWERS
NO. 692 - EXP. APRIL 2027
LICENSED LANDSCAPE ARCHITECT

PROJECT NO: 26120
FILE NAME: 26120LSD
DRAWN BY: KLO
CHECKED BY: KLO
X-REFS: CIVIL
PLOT SCALE: 1:1
DRAWING SCALES: 1:20

DRAWING CONTENTS
LANDSCAPE PLAN

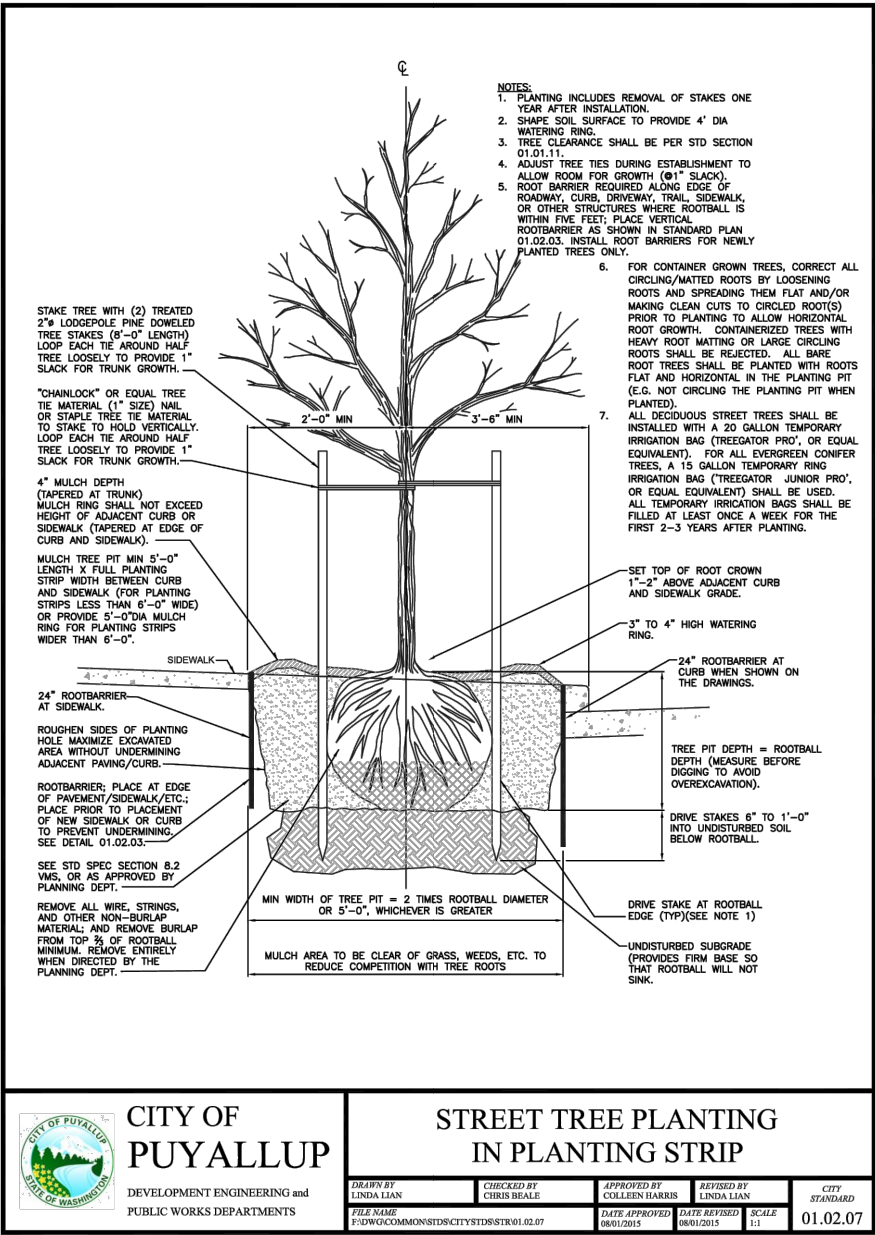
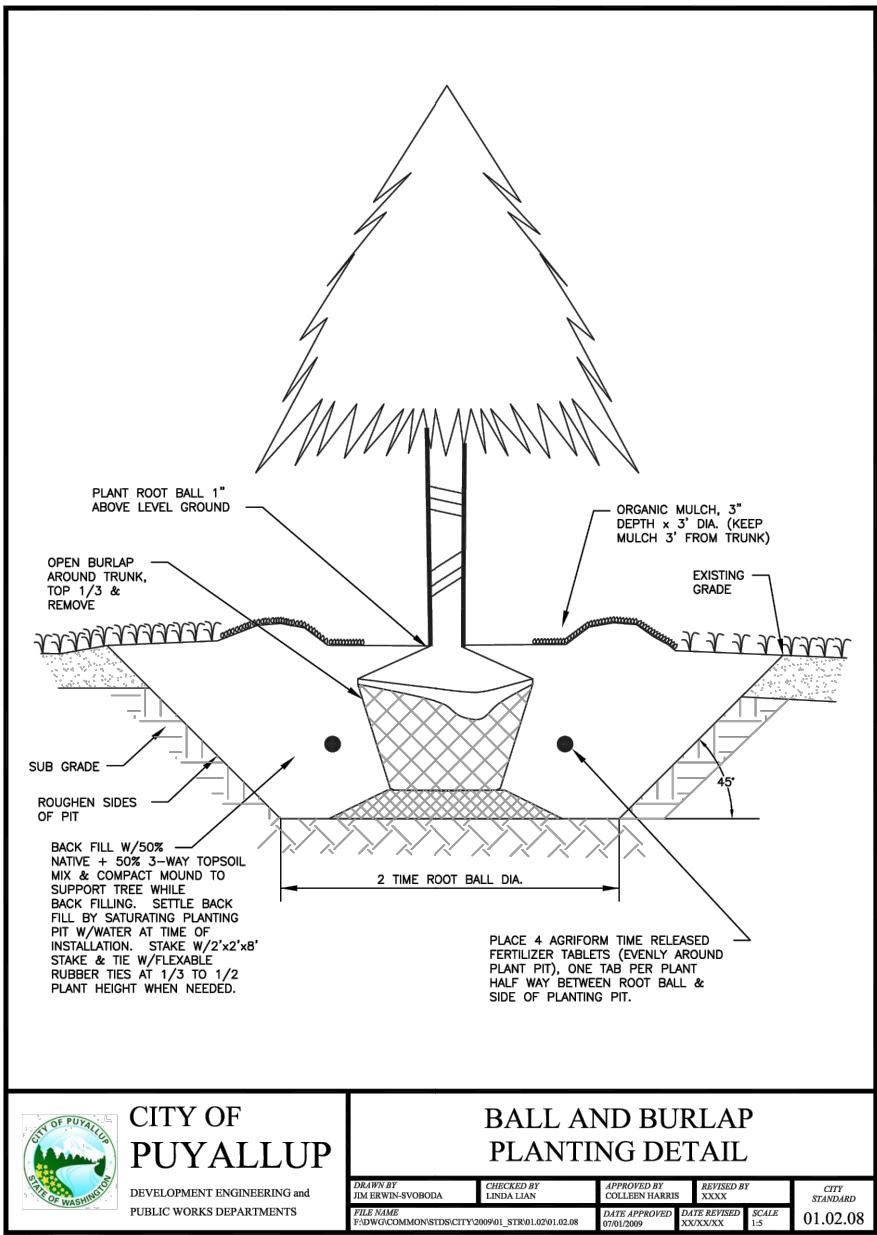
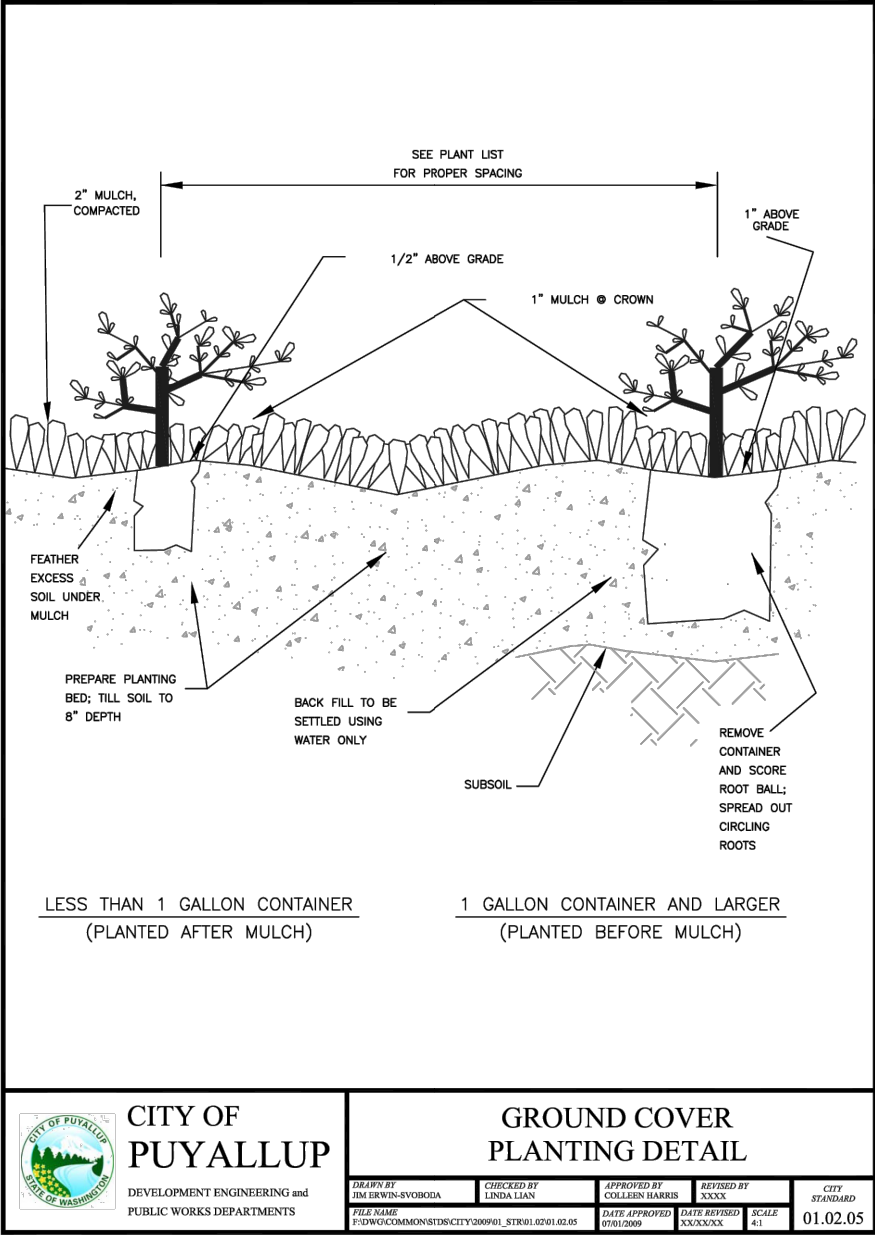
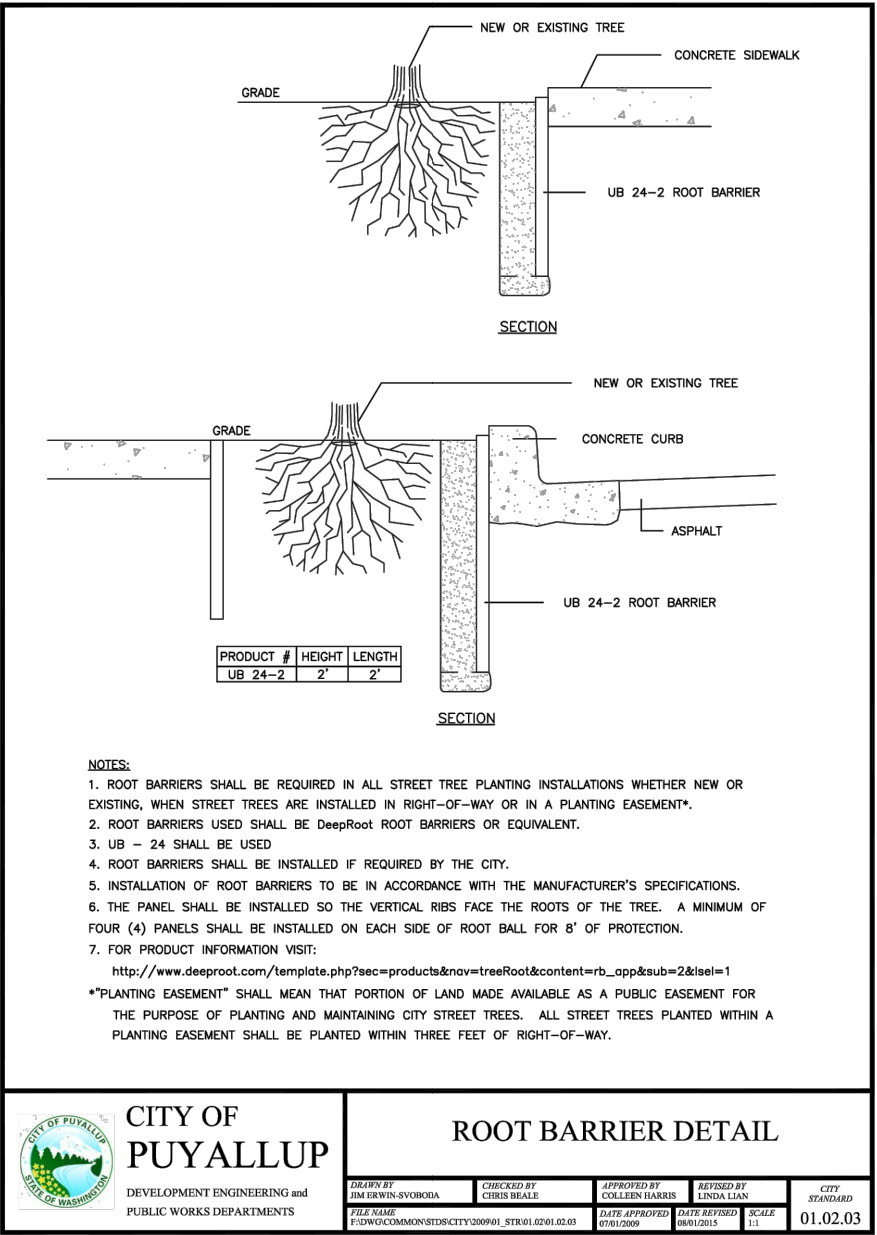
DRAWING NO.: **L1**
1 OF 3

ORIG. SHEET SIZE 22X34

GENERAL LANDSCAPE NOTES

1. Contractor is responsible for obtaining all necessary permits from the appropriate agency prior to commencing work. Contractor shall contact Line Locators (811) a min. of 48 hours prior to any digging or trenching. If there are any discrepancies with existing lines and landscaping, it is the contractor's responsibility to contact the landscape architect and request a site visit to address the conflicts. Contractor shall comply and conform to any and all local and state codes for work, schedules and any other project related requirements.
2. Contractor shall coordinate directly with the landscape architect for all landscape related issues, concerns, inspections and approvals. Contractor shall provide the landscape architect with a written request for a site visit to address any related items.
3. Scope of work shall include any and all specified and unspecified but related incidental work to achieve the design indicated on the landscape plans. All labor, materials, subcontractors, equipment, and related incidental items shall be supplied and installed to achieve a complete project, unless directed otherwise by the general contractor or landscape architect.
4. Contractor to verify all sub grades are set below required amendments to insure the finished grade will match what is intended by civil or drainage design. All sub grades and finished or final grades shall be graded to drain to the designed drainage system with positive drainage away from all structures.
5. **Grade Preparation BASED ON VEGETATIVE MANAGEMENT STANDARDS REQUIREMENTS:**
- Soil Preparation. See full soils notes to meet City of Puyallup Code requirements sheet L3.
6. Contractor shall field layout all plant material and contact the landscape architect for a site visit to approve the layout. Any field modifications shall be done by the landscape architect prior to planting.
7. Contractor shall immediately notify the landscape architect of any poor drainage condition in landscape areas. No standing water shall be permitted in any landscape areas - either on the surface or below the topsoil. The landscape architect shall coordinate the drainage solution with the general contractor and civil engineer. Once the concerns have been remedied planting shall commence.
8. All groundcover to be planted in a triangular spacing formation, equal in all directions to the centers of the groundcovers in distances indicated in the legend. Contractor shall verify all quantities of groundcovers by area calculations and spacing requirements.
9. Landscaping is to be per plan. Plant substitutions due to availability or otherwise will be allowed only with landscape architect, owner and agency approval. Any substitutions will be with material of similar size, growth characteristics, and quality.
10. All trees must be staked as necessary so as to maintain material in a healthy, vigorous growing condition.

11. Landscaping shall be installed in a professional workmanlike manner that is consistent and accepted throughout the industry. All landscape and irrigation work shall be performed by experienced persons familiar with scope of project.
12. All landscape material and labor is to be guaranteed for a period of one full year from the time of completion.
13. When planting 'Balled and Burlapped' product, remove all burlap, string & wire from any B&B plant material, cut and remove jute strings. Gently place in tact Rootball into planting pit. If rootball breaks or is not solid - the plant is unacceptable and shall be replaced.
14. Street trees shall have caliper size of at least 1" measure per American Association of Nurserymen Standards for Deciduous Trees Plant sizes: 5' Minimum height for Evergreen trees; 2 Gal. Min. for shrubs.
15. Street trees shall be high branching with canopy that starts at least 6' above finish grade.
16. All plant I.D. tags are to remain on the plant material until final inspection has been completed. Once approved all plant I.D. tags shall be removed and discarded appropriately.
17. Trees shall be cared for in accordance with the American National Standards Institute (ANSI) standard practices for trees, shrubs and other woody plant maintenance (ANSI 300) in order to allow them to reach there mature height and form.
18. Pruning of street trees shall be performed per the ANSI 300 standards so as to maintain the natural form of the tree, encourage vigorous growth to a mature spread and height, and avoid weakening the tree to create a hazard. Street trees shall not be topped pollarded, or otherwise pruned in a manner contrary to these goals, unless there is no practicable alternative that would preserve essential utility services.
19. Plant material selected is drought tolerant or native species. The project proponent shall be responsible for maintaining and watering all plant material throughout the first growing season and in times of drought. A Permanent Irrigation system will be designed upon approval of preliminary landscape plan.



8.0 LANDSCAPE INSTALLATION STANDARDS:

8.1. General Installation Standards

- A. All work shall be performed and completed in a professional manner. All public rights-of-ways shall be cleared of all mud and debris at the completion of every workday. All on-site storage and work areas shall be maintained in a safe and hazard free condition.
- B. All final landscape plans shall indicate the method of planting and tree staking when applicable. Staking shall only be used where demonstrated to be necessary. Newly planted trees installed in very loose soil or extremely windy locations shall be staked for one full growing season to minimize tree movement. The tree shall be secured to the stake with a loose attachment that will allow the tree to grow without injury. The stake will be placed in such a manner that there will be no limb or bark damage. The stake shall not penetrate the root ball and be placed on the lee side of the prevailing winds. All stakes and attachment material will be removed by the contractor or property owner at the completion of the first full growing season.
- C. In parking areas, trees and shrubs shall be planted at least two and one-half feet from the inside edge of the curb or wheel stop, where vehicles may overhang planted areas. Ground cover vegetation should be installed on a regular spaced grid pattern including the overhang area.

8.2 Soil Quantity and Quality Standards

Purpose and Definition
Naturally occurring (undisturbed) soil and vegetation provide important stormwater functions including water infiltration, nutrient, sediment, and pollutant adsorption; sediment and pollutant biofiltration; water infiltration storage and transmission; and pollutant decomposition. These functions are largely lost when development strips away native soil and vegetation and replaces it with minimal topsoil and sod. Not only are these important stormwater functions lost, but such landscapes themselves become pollution-generating surfaces due to increased use of pesticides, fertilizers and other landscaping and household/industrial chemicals, the concentration of pet wastes, and pollutants that accompany roadside litter. Establishing soil quality and depth regains greater stormwater functions in the post development landscape, provides increased treatment of pollutants and sediments that result from development and habitation, and minimizes the need for some landscaping chemicals, thus reducing pollution through prevention.

- All soils in all landscape installations shall conform to the following soil depth and quality requirements. Please refer to appendix 20.9 for further installation guidance:
- A. A minimum of eight (8) inches of topsoil, containing ten percent dry weight in plantable beds, and 5% organic matter content in turf areas, and a pH from 6.0 to 8.0 matching the pH of the original undisturbed soil. The topsoil layer shall have a minimum depth of eight inches (8") except where tree roots limit the depth of incorporation of amendments needed to meet the criteria. Subsoils below the topsoil layer should be scarified at least 6 inches with some incorporation of the upper material to avoid stratified layers, where feasible. Installation of the eight inches (8") of topsoil, as described above, shall generally be achieved by placing five inches

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THIS PROJECT SOIL REQUIREMENT

THIS PROJECT SOIL REQUIREMENT

- (5") of imported sandy loam topsoil into planned landscape areas (sub-base scarified four inches (4") with a three-inch (3") layer of compost filled into the entire depth).
- B. For street trees in the right of way planter strip, the following standards shall apply in relation to soil depth, soil amendments and installation of new street trees. The following notes shall be shown on the face of the preliminary and final landscape plan sheets:

- (1) For new construction: In areas where a new planter strip and street tree shall be established or reconstructed due to a street construction project, the planter strip area shall be excavated to a depth of 24" and backfilled following the standard above to achieve a topsoil mix with 40 percent compost by volume. The contractor or installer shall:

B. NOT APPLICABLE

1. Review the city standard planting detail – All contractors/installers are required to follow city standard 01.02.07 (street tree planting) and #01.02.03 (root barrier installation). The contractor/installer shall review the planting standard detail prior to installation to understand the city's requirements. Failure to follow the standard may result in rejection of the work by the inspector and/or Planning Department.
2. Schedule a field pre-construction meeting - The contractor/installer shall contact the site inspector and Planning Department 48 hours in advance of the installation of street trees for a field pre-construction meeting on-site to review the approved plan set and city standard details. If street trees are to be installed over a longer timeline (such as a residential plant tree) may be installed over a multi-month period), the contractor/installer shall hold one consolidated pre-con to review plans. All street trees shall be inspected after planting by the Planning Department.
3. Excavate all construction materials - Excavate all construction materials, remnant soil, gravel, pit run, construction debris, etc. from the planter strip area to a depth of 24" prior to planting. Discard this material as the contractor's responsibility. Do not place this material in the street or on the sidewalk.
4. Prepare the planting strip - After excavating all materials from the planter strip, scarify and rip the sub-base with the teeth of a backhoe bucket (or other mechanical means or hand tools) to a depth of 6" with multiple passes, 90 degrees to each other. Prior to planting the tree, re-compact the tree base where the street tree will be planted to avoid setting of the root ball.
- At this stage, if the tree is to be planted when the planter strip is backfilled with amended topsoil, the contractor/installer should measure the depth of the root ball to determine when to place the tree in the pit during the backfilling process. If the root ball or root mass (in the case of bare root trees) is less than 24", the street tree shall be planted in a manner in which the root flare is level with or at least 1" above grade at the time of finished planting. This may require the root ball be placed on a compacted sub-base of the compost amended topsoil as backfilling is occurring.

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5. Install root barrier panels - At this stage the contractor/installer shall place 24" deep root barrier panels (UB-24) along the edge of the sidewalk and curb line for a total of eight feet (8') of linear protection along either side of the planting area. The panels shall be installed perpendicular to the edge of paved surface in accordance with the manufacturer's standards for a "linear" application; the root barrier panels shall not be installed in the planting pit as a "surround" application, unless specified on the final landscape plans. The top of the root barrier panel shall be installed such that 1/2" of the root barrier is above the finished grade.

6. Compost amended topsoil required - Topsoil source shall be reviewed and approved during the pre-construction meeting; all topsoil shall be a top quality sandy-loam mix, or equivalent as approved by the Planning Department. The topsoil shall be amended on site during installation with compost to achieve a 40 percent by volume topsoil mix in the right-of-way planter strip. Imported topsoil may be used by the contractor if data "cut sheets" are available from the supplier certifying compost amendment equalling 40 percent by volume using one of the approved compost sources below. Compost shall only be sourced from:

- Cascade Compost (also known as PREP/IRI) (available through Pierce County Recycling, Composting & Disposal, 10308 Sales Road, Tacoma, Washington 98409, or retail/wholesale landscape material suppliers)
- TAGRO Compost Mix (available through City of Tacoma, 2201 E. Portland Avenue, Gate 6, Tacoma, WA, 98421, or retail/wholesale landscape material suppliers)
- Cedar Grove Compost (available through Cedar Grove Compost, 17825 Cedar Grove Road S.E., Maple Valley, 98038, or retail/wholesale landscape material suppliers)

7. Install and amend topsoil - To avoid stratified layers, first place seven inches (7") of approved topsoil in the prepared/scarified planting strip area and mechanically till in five inches (5") of approved compost; follow this procedure twice to achieve the total 24" topsoil depth. Finished grade of topsoil should be 1/2" below the edge of sidewalk to allow the root barrier panel to be properly installed above finished grade.

8. Install tree stakes and finish mulch - Placement of four inches (4") of wood chip mulch, water basin rings, tree staking, and temporary irrigation bags (where required) shall follow city standard #01.02.07.

- (1) For street trees to be planted in existing right-of-way planter strips: In a planter strip which already exists, and a new street tree shall be installed, the following procedures shall be followed to achieve a topsoil mix with 40 percent compost by volume:

- i. Excavate soil - Excavate existing soil to a depth of 24" (or equal to the root ball depth, whichever is greater) and width of 8' (or three times (3X) wider than the root ball or root mass, whichever is greater). Stockpile excavated soil on a tarp away from the street and storm water catch basins.

Page 13 of 51

- ii. Prepare the planting strip - After excavating all materials from the planter strip, scarify and rip the sub-base (by mechanical means or hand tools) to a depth of 6" with multiple passes, 90 degrees to each other. Prior to planting the tree, re-compact the tree base where the street tree will be planted to avoid setting of the root ball.

- At this stage, if the tree is to be planted when the planter strip is backfilled with amended topsoil, the contractor/installer should measure the depth of the root ball to determine when to place the tree in the pit during the backfilling process. If the root ball or root mass (in the case of bare root trees) is less than 24", the street tree shall be planted in a manner in which the root flare is level with or at least 1" above grade at the time of finished planting. This may require the root ball be placed on a compacted sub-base of the compost amended topsoil as backfilling is occurring.

- iii. Install root barrier panels - At this stage the contractor/installer shall place 24" deep root barrier panels (UB-24) along the edge of the sidewalk and curb line for a total of eight feet (8') of linear protection along either side of the planting area. The panels shall be installed perpendicular to the edge of paved surface in accordance with the manufacturer's standards for a "linear" application; the root barrier panels shall not be installed in the planting pit as a "surround" application, unless specified on the final landscape plans. The top of the root barrier panel shall be installed such that 1/2" of the root barrier is above the finished grade.

- iv. Compost amended topsoil required - The topsoil shall be amended on site during installation with compost to achieve a 40 percent by volume topsoil mix in the right-of-way planter strip. Imported topsoil may be used by the contractor/installer if data "cut sheets" are available from the supplier certifying compost amendment equalling 40 percent by volume using one of the approved compost sources below. Compost shall only be sourced from:

- Cascade Compost (also known as PREP/IRI) (available through Pierce County Recycling, Composting & Disposal, 10308 Sales Road, Tacoma, Washington 98409, or retail/wholesale landscape material suppliers)
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- v. Install and amend topsoil - To avoid stratified layers, first place seven inches (7") of approved topsoil in the prepared/scarified planting strip area and mechanically till in five inches (5") of approved compost; follow this procedure twice to achieve the total 24" topsoil depth. Finished grade of

- topsoil should be 1/2" below the edge of sidewalk to allow the root barrier panel to be properly installed above finished grade.
- vi. Install tree stakes and finish mulch - Placement of four inches (4") of wood chip mulch, water basin rings, tree staking, and temporary irrigation bags (where required) shall follow city standard #01.02.07.

7. The project landscape architect shall utilize one of the design methods outlined in appendix 20.9 in incorporating this standard. The landscape architect shall estimate total topsoil and compost import volumes and specify the topsoil and compost source during the final landscape plan review. A topsoil delivery ticket(s), invoice(s), or other physical proof that the correct quantity and quality of topsoil was delivered shall be provided at the time of final inspection.

- 8.3 Mulching
To minimize water use, reduce costs and use of chemicals for maintenance, all planting areas shall be mulched with a uniform four (4") inch layer of organic compost mulch material or wood chips over a properly cleaned, amended and graded subsurface. Four (4) inches of mulch in planting areas shall be maintained through the life of the project. Herbicides shall not be used in the mulch ring area for street trees; see city standard #01.02.07 for street tree mulch application and dimensions.

9.0 GUARDING AGAINST DAMAGE:

9.1 Vegetation Protection

- Any person, firm or corporation engaged in the construction, alteration or repair of any street, sidewalk, parking area, building or portion thereof, prior to starting of any such activity, shall place proper guards or temporary fences to ensure the protection of adjacent existing vegetation from all damage or injury. This includes the restriction on stacking, storing, stockpiling, or the accumulation of pools or material in the area defined as the Critical Root Zone. See appendix 20.10 for tree protection on construction and development sites best management practices. See appendix 20.5 for standard detail for protection of all trees (public, private)

- In developing a tree protection plan, the applicant shall consult a certified arborist, with a certification in Tree Risk Assessment (TRAQ). All vegetation scheduled or conditioned to be retained during development or construction actions shall be assessed by a certified arborist in accordance with industry accepted arboricultural standards as well as the standards contained in appendix 20.10. The project arborist shall integrate any and all applicable protection and pre-conditioning measures outlined in appendix 20.10.

9.2 Excavation in Root Zone

- To avoid damaging the health and stability of any existing tree which is to be retained, all root structures one (1) inch in diameter or greater found within the upper 24 inches of soil, should not be cut. All roots over two inches in diameter should be tunneled under. Use of

- pneumatic air tools to remove soil around existing root system is preferred. As last resort, if roots are to be cut, they should be cut cleanly. All exposed/cut roots shall be immediately covered with wet burlap, wet hog fuel/wood chips/sawdust or damp soil or compost to prevent desiccation. No tipping or tearing of the root structure shall be allowed. At no time shall the amount of root destruction pose a danger to the general health or stability of the tree.

9.3 Violation - Penalty for Damage

- Penalties for damage to vegetation covered by this document shall follow the appropriate PMC Section(s) including 11.28 or 20.95.

10.0 EXISTING AND NATIVE VEGETATION:

10.1 Existing Trees

- To maintain and improve the environmental quality, comply with the intent of the Comprehensive Plan and to integrate the project with the existing vegetation, the following classes of trees shall be deemed worthy of retention per the standards of this section: significant trees and heritage trees. Significant trees (as defined below) on a single family or other residential property containing four (4) dwelling units or less are not regulated under the following standards, unless that tree is located in a critical area (as designated under PMC 21.06) or is a tree designated under the city's Heritage Tree Program (PMC 20.58.025).

- See appendix 20.5 and 20.10 for further details regarding tree retention and protection during construction. Critical Root Zone areas shall be established using the following standards:
- A. Critical Root Protection Zones for Significant Trees. In establishing the extent of the Critical Root Protection Zone (CRPZ) for individual significant trees, groupings of significant trees, a stand of significant trees, or a heritage tree the following formula shall be used:

1. Existing Trees
To maintain and improve the environmental quality, comply with the intent of the Comprehensive Plan and to integrate the project with the existing vegetation, the following classes of trees shall be deemed worthy of retention per the standards of this section: significant trees and heritage trees. Significant trees (as defined below) on a single family or other residential property containing four (4) dwelling units or less are not regulated under the following standards, unless that tree is located in a critical area (as designated under PMC 21.06) or is a tree designated under the city's Heritage Tree Program (PMC 20.58.025).

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- See appendix 20.5 and 20.10 for further details regarding tree retention and protection during construction. Critical Root Zone areas shall be established using the following standards:
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- See appendix 20.5 and 20.10 for further details regarding tree retention and protection during construction. Critical Root Zone areas shall be established using the following standards:
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- See appendix 20.5 and 20.10 for further details regarding tree retention and protection during construction. Critical Root Zone areas shall be established using the following standards:
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- (1) Tree diameter (in inches) X 2, converted into feet = CRPZ diameter



- (2) A tree's root system ranges well beyond the drip line. The (CRPZ) has been established above to set a practical limit beyond which any loss of roots would not have a significant impact on the tree's survival. Certain conditions may require larger critical root zones to specify tree survival. Staff may request a larger preserved area for species that are less resilient to the impacts of development, high value trees, heritage trees, rare trees, and trees in sensitive site conditions. This request could identify a critical root zone 1.25 to 1.5 times larger than the minimum standard.

- (3) The following minimum design standards are established and shall be used to determine the extent of allowable impacts to the CRPZ of significant trees:
- i. For significant trees, a minimum of 50 percent of the critical root zone must be preserved at natural grade, with natural ground cover. For heritage trees, a minimum of 75 percent of the critical root zone must be preserved at natural grade with natural ground cover.

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- ii. No cut or fill greater than four (4) inches will be located closer to the tree trunk than 1/2 the CRPZ radius distance.
- iii. No cut or fill within the distance from the tree which is three (3) times the trunk diameter (also can be determined by calculating the 1/2 CRPZ). For example, no cut is allowed within 60-inches of a tree which is a 20-inch diameter trunk.

- These criteria represent minimum standards for determining whether or not a tree may be retained. Greater impacts may be allowed, provided that all design alternatives have been proven unfeasible and that a pre-conditioning and after care mitigation program is established. Such pre and after care program shall follow the guidelines for pre-conditioning found in appendix 20.10 (pages 18-20) and at a minimum shall include:

- i. Establishing and maintaining a 4-6" layer of hard wood chip mulch in the CRPZ
- ii. Soil aeration using a high pressure air spade, pneumatic air tool or power auger to create a spoke patterned area around the base of the tree and throughout the CRPZ, back filled with watering to encourage root growth. See appendix 20.10, page 20, section 4 for specific standards.

- iii. Temporary irrigation (soaker or drip irrigation) throughout the CRPZ during construction
- (4) The CRPZ shall be shown on the final clearing (CFG and TESC) plan sheets (under the civil site development permit) and final landscape plan sheet. The CRPZ shall be protected using the city standard detail found in appendix 20.5. The city planner shall complete an inspection of the CRPZ prior to any work occurring on the development site. The CRPZ fencing and tree protection signage shall remain in place throughout all phases of construction. Other permit conditions, which shall be shown on the face of all CFG, TESC and final landscape plan sheets, include:

- i. All trees shall be marked in the field. This may be done with a small aluminum tag, spray painted numbers using a stencil template, or other minimally invasive method that adds the site contractor and case number in identifying each tree scheduled for retention.
- ii. No work shall occur within the CRPZ, including, but not limited to, stockpiling materials or soil, parking equipment, placing solvents, or dumping any construction related debris, etc.

- iii. Entry into the CRPZ or modification of the CRPZ area requires prior authorization from the city Planning Department.
- iv. Roots cut shall be cut cleanly and immediately covered with wet burlap, wet wood chips/hog fuel, wet compost, etc. to prevent root desiccation.

- v. Areas immediately adjoining the CRPZ that will remain a root zone area/landscaping area post-construction but impacts to that area of the root zone are deemed worthy of retention per the standards of this section: significant trees and heritage trees. Significant trees (as defined below) on a single family or other residential property containing four (4) dwelling units or less are not regulated under the following standards, unless that tree is located in a critical area (as designated under PMC 21.06) or is a tree designated under the city's Heritage Tree Program (PMC 20.58.025).

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- following. Maintaining trees and vegetation cover is critical for reducing potential erosion, soil and slope stability, habitat, and community aesthetics. Trees shall not be removed that will compromise soil stability, increase erosion potential, impact habitat functions or for establishing Street Trees (PMC 11.28), street trees) shall be retained. All new street trees shall conform to the "Street Tree Installation Standards Table" in section 12.4 of this document.
- C. Permitting Requirements - The City's Development Services Director, or designee, shall review and approve all street tree maintenance, pruning, removal and planting requests in accordance with city standards.
- (1) Right-of-way street tree permit shall be obtained to:
- i. Prune branches larger than 2" in diameter or to remove more than 10 percent of the branches in any tree during a one-year period (pruning of branches smaller than 2" in diameter that does not exceed 10 percent removal of tree's branches are exempt, unless they are within 15' of energized overhead power lines, in which case a permit is required).
- ii. Remove a street tree over 6" in diameter (as measured at 4.5' above grade, or 10-15' for trees smaller than 6" in diameter are exempt from permits but may only be removed based on the above established "Street Tree Removal Criteria").
- iii. Remove any street tree within 15' of an energized overhead power line.
- iv. Root prune or trench near any street tree where roots over 2" in diameter will be affected.
- (2) Planting - A street tree planting permit shall be required to plant a new street tree in the right-of-way. The permit shall be reviewed and approved by the City's Development Services Director, or designee, shall review and approve all street tree maintenance, pruning, removal and planting requests in accordance with city standards.
- (3) Stump grinding - All street trees that are removed shall be completely removed around the tree trunk using stump grinding at a grade such that no tripping hazard is present upon completion of the work.

- 10.2 Existing Vegetation
A. Credit for retention: Where existing healthy plant material exists on a site prior to its development, property owners/developers shall retain the existing landscaping and native vegetation to the greatest extent possible. The Director may give credit toward required landscaping for incorporating existing plant material into the project design if it meets the intent of this document.
- B. Buffers: If the proposed project is required to provide natural vegetation buffers for mitigation or environmentally critical areas that will be located on or adjacent to the project site, the Director may permit the use of existing vegetation to satisfy a portion or all of the required landscaping or buffer planting requirements. The Director may require additional landscaping or enhancement to satisfy the standards and intent of this policy, PMC Title 20 or Title 21.

- 11.0 MAINTENANCE STANDARDS:
11.1 General Maintenance
All projects with approved landscape plans shall maintain such landscape in a green and growing condition. Any plant material diseased, dead, or significantly injured or dead shall be replaced at the earliest appropriate time. Landscaped areas shall be kept free of weeds, inappropriate plant material, rubbish and trash. All approved landscapes will be assessed for compliance with the approved final landscape plan and these standards at time of application for final Certificate of Occupancy. The installed landscape shall be re-inspected one full growing season after issuance of final Certificate of Occupancy and periodically thereafter. Any plant material or

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- 11.2 Buffers and Open Space
All areas preserved as natural plant communities or common areas including buffers, enhanced buffers,