

**PLANT SCHEDULE EASTFRONT COMMERCIAL**

TREES	BOTANICAL / COMMON NAME	SIZE	QTY
	<i>Cercis canadensis</i> / Eastern Redbud	2" Cal.	9
	<i>Nyssa sylvatica</i> / Tupelo	2" Cal.	13
	<i>Thuja occidentalis</i> 'Smaragd' / Emerald Green Arborvitae	5' Ht.	18
SHRUBS	BOTANICAL / COMMON NAME	SIZE	QTY
	<i>Calluna vulgaris</i> 'Kerstin' / Kerstin Heather	1 gal.	73
	<i>Juniperus squamata</i> 'Blue Star' / Blue Star Juniper	2 gal.	17
	<i>Myrica californica</i> / Pacific Wax Myrtle	15 gal.	18
	<i>Nandina domestica</i> 'Gulf Stream' / Gulf Stream Nandina	5 gal.	30
	<i>Pieris japonica</i> 'Katsura' / Katsura Japanese Pieris	3 gal.	44
	<i>Prunus laurocerasus</i> 'Mount Vernon' / Mount Vernon English Laurel	1 gal.	35
	<i>Spiraea x bumalda</i> 'Goldflame' / Goldflame Spirea	3 gal.	27
GROUNDCOVER	BOTANICAL / COMMON NAME	SIZE	QTY
	<i>Arctostaphylos uva-ursi</i> / Kinnikinnick	1 gal.	117
GRASSES	BOTANICAL / COMMON NAME	SIZE	QTY
	<i>Calamagrostis x acutiflora</i> 'Karl Foerster' / Karl Foerster Feather Reed Grass	1 gal.	27



STATE OF WASHINGTON  
REGISTERED  
LANDSCAPE ARCHITECT  
PAUL M. GEORGE  
CERTIFICATE NO. 641

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**Eastfront Commercial**  
1695 Main Street  
Ferndale, WA 98248

PROJECT START DATE 6/13/2022
REVISIONS
3/14/2024
DESIGNED BY CTH

L1 of 5  
**L1**

**APPROVED**  
03/20/2024 3:23:03 PM

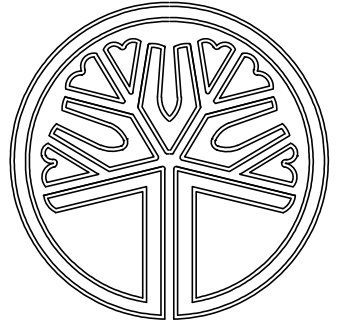


NOTE TO LANDSCAPE CONTRACTOR:  
ALL LAWN AREAS WILL BE SODDED OR HYDROSEEDING WITH PRODUCT APPROVED BY LANDSCAPE ARCHITECT.  
AN IRRIGATION SYSTEM WILL BE INSTALLED THROUGHOUT THE PROJECT.  
SEE SHEET L5.

THIS PROJECT COMPLIES WITH THE DEPARTMENT OF ECOLOGY LID STANDARDS, ALL LANDSCAPE AREAS WILL FOLLOW THE GUIDELINES INDICATED ON THE DIAGRAM V-5.3.3.

**Landscape Overview**  
Scale: 1" = 20'-0"  
RECEIVED  
03/20/2024  
BY: Patti Gearhart  
23014-SPR

MAIN STREET



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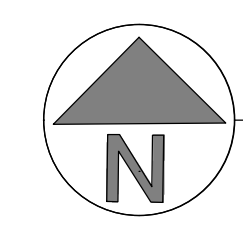
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CTH

L2 of 5  
**L2**

SHEET L2  
SHEET L4

SHEET L2  
SHEET L3



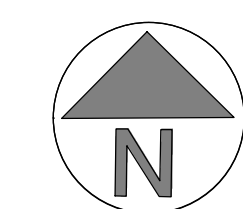
**Planting Plan - Northwest**

Scale: 1" = 10'-0"



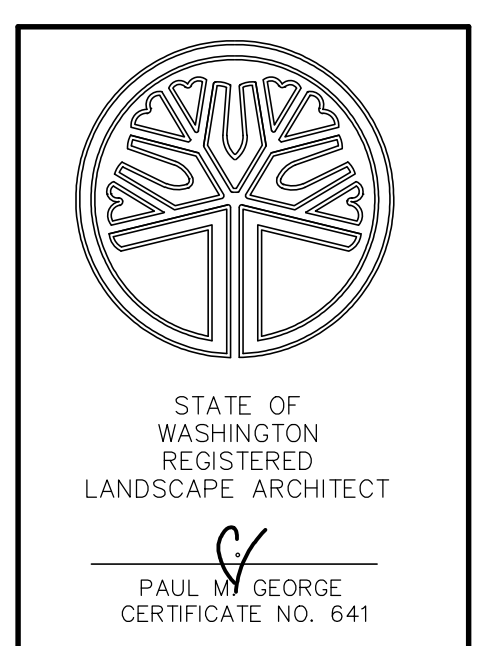
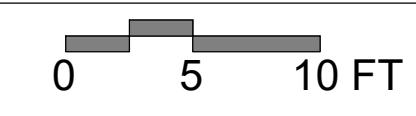


SHEET L2  
SHEET L3



**Planting Plan - Northeast**

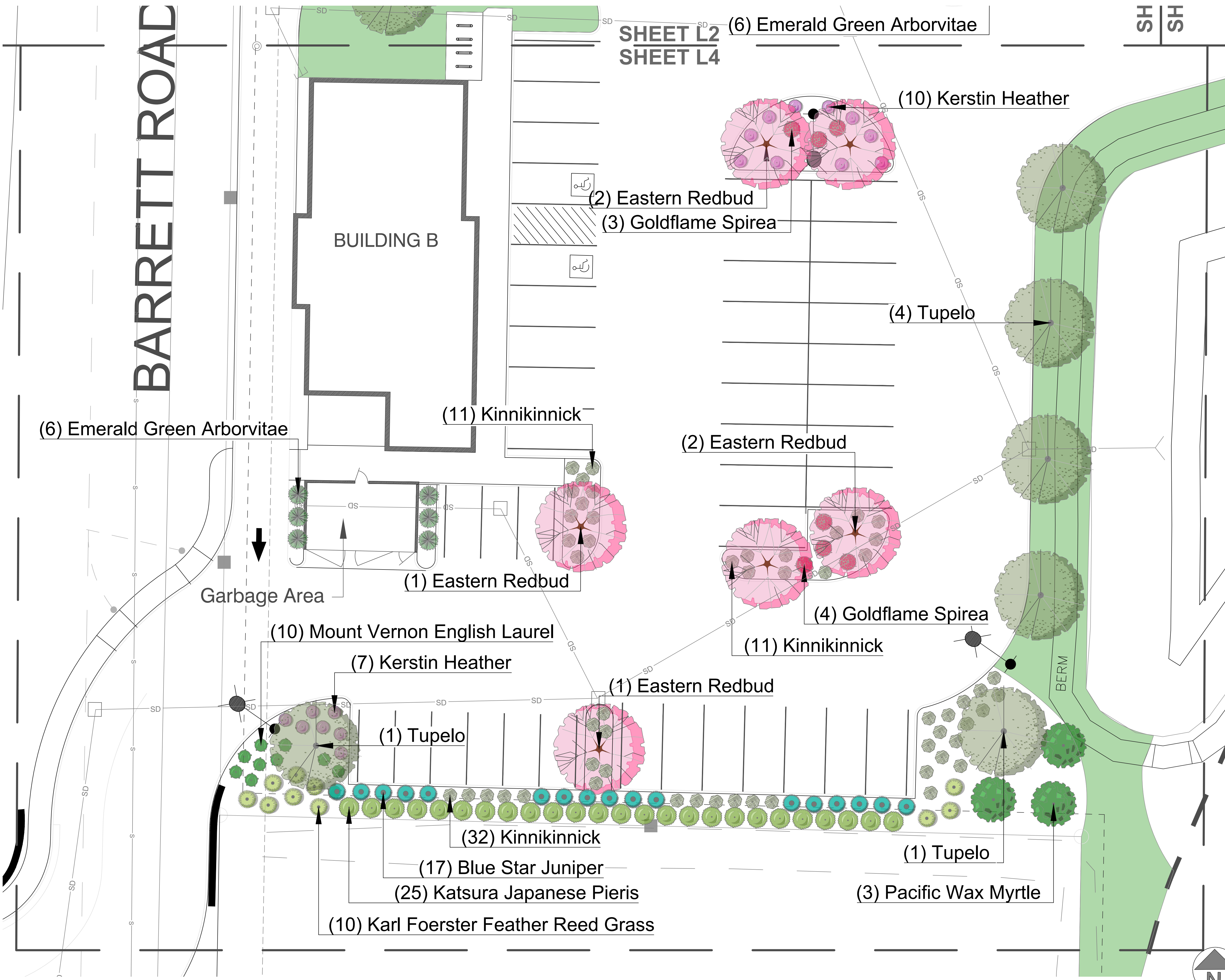
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SHEET L2  
SHEET L4

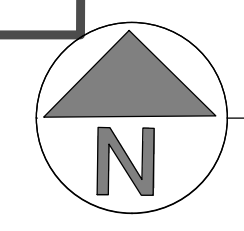
SH  
SH

BARRETT ROAD

BUILDING B

Garbage Area

BERM



Planting Plan - South

Scale: 1" = 10'-0"



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**L4**

# LANDSCAPE SPECIFICATIONS

this project complies with the department of ecology lid standards

## PART 1 – GENERAL

- 1.1 **WORK INCLUDED:** Furnish all materials, equipment and labor necessary to complete all landscape work including lawns and seeding as shown on the drawings and as specified.
- 1.2 **RELATED SECTIONS:**
- 1.3 **QUALITY ASSURANCE**
  - A. Only licensed, bonded Contractors carrying liability insurance in an amount to cover any incident that the Contractor might encounter while on the site or related activity may submit a construction bid.
  - B. The Contractor shall become familiar with all conditions of the site as they pertained to the work to be performed and verify all dimensions and conditions throughout the progress of the work. Any discrepancies between items shown on the drawings and those existing on the site are to be brought to the attention of the Landscape Architect.
- 1.4 **PROTECTION OF EXISTING CONDITIONS:** Protect all existing utilities, structures, and plants from damage of any kind; any such damage must be repaired by the Contractor at no extra cost to the Owner.
- 1.5 **FIELD QUALITY CONTROL AND INSPECTIONS**
  - A. Notification: The Contractor shall give 48 hours notice to the Architect when an inspection is desired.
  - B. Upon completion of all planting and all other work required under this Contract, the Contractor shall request a provisional inspection (punch list).
  - C. The Contractor shall request a final inspection upon satisfactory completion of all punch list items and any other work required under this Contract. Final inspection and acceptance of the work shall establish the beginning of the guarantee period.
- 1.5 **GUARANTEE, REPLACEMENT**
  - A. The survival and health of all plants shall be guaranteed for 1 full year, starting the date of planting completion.
    - i. Any plants that need replacement shall be installed mid September following the 1 year period.
  - B. The Contractor shall maintain all plants and lawn through final inspection date.
    - C. All site furnishings that are proven to be defective within the 1 year warranty period shall be replaced at the cost of the Contractor.

## PART 2 – PRODUCTS

- 2.1 **PLANT MATERIALS**
  - A. All plant material shall be ordered immediately following the award of Contract. Contractor is responsible for assuring that plant material installed is of specified size and quantity.
  - B. All plants are to be healthy, vigorous and of normal habit of growth for the species and varieties named.
  - C. Plant sizes shall be in accordance with "American Standard for Nursery Stock" as published by the American Association of Nurserymen, Inc.
  - D. Planting Soil:
    - i. Planting soil shall be sandy loam topsoil, free from noxious weeds as approved by the Landscape Architect. If existing soil is primarily clay-like, 100% purchased topsoil should be used for all planting.
    - ii. All raised garden planters shall receive sandy loam topsoil or equal, able to percolate water throughout the year.
  - E. Fertilizers and Soil Amendments:
    - i. General: Approved brands conforming to applicable State fertilizer laws. Uniform in composition, dry, free-flowing, delivered to the site in original, unopened containers, each bearing the manufacturer's guaranteed analysis.
    - F. Fertilizer for trees, shrubs and groundcover:
      1. Agriform Tablets: Planting tablets, 21-gram size, or equiv. 20-10-5 analysis. Apply at rate of:
        - i. Trees: 4 tablets each
        2. Shrubs: 2 tablets each
        3. Groundcover: 1 tablet each
      - G. Stakes and Guy's: Material as per detail on plan.
      - H. Mulch: Medium bark mulch of fir or hemlock, uniform in color, free from weeds, seeds and shall not contain resin, tannin, wood fiber, salts, or other compounds detrimental to plant life.
      - I. Herbicide: Treat all planting beds with a selective pre-emergent herbicide according to manufacturer's recommendations. Remove all foreign weeds by roots prior to acceptance.

- 2.2 **TOP SOIL:** Good quality sandy loam free from weeds with visible dark organic matter, with a minimum of 8" placed over 4" prepared subgrade (See Figure V-5.3.3) with a minimum of 5% organic matter content for lawn areas and 10% organic matter content in planting beds, and a pH from 6.0 to 8.0 or matching the pH of the undisturbed soil. Prepared soils must also be free of stones 1" inch or larger and other materials harmful to plant growth. The 8" topsoil requirement can be achieved several ways including preserving existing soil, removing, stockpiling and reapplying stored topsoil, or importing soils to achieve 8" depth. Please refer to BMP T5.13 in the Stormwater Management Manual for Western Washington for further details.

## PART 3 - INSTALLATION

- 3.1 **TREES, SHRUBS AND GROUND COVER PLANTING**
  - A. All tree holes shall be excavated to twice the diameter of the root ball, normal spread of roots, or the plant container, except that if clay or hardpan is found at the bottom of the hole, it shall be excavated an additional 18" and the bottom 12" filled with pit run gravel to provide an excess moisture sump.
  - B. All shrub holes shall be excavated to twice the diameter of the root ball or plant container.
  - C. Set trees, shrubs, and groundcovers in their natural growing positions and at the grade level at which they were originally grown.
  - D. Backfill with planting soil mix.
  - E. Plant groundcover plants at spacing indicated in straight evenly spaced rows.
  - F. All planting pits shall be thoroughly soaked with water by hand while backfilling to complete fill all voids around roots.
  - G. Stake all trees as shown in details on plan.
  - H. Fertilizer Application:
    - j. Apply transplant at the specified rate uniformly around the circumference of the root spread under a cover of 2" of planting mix.
    - ii. Place plant tablets on sides of planting pits prior to backfilling.
  - I. Mulching:
    - i. Immediately after completion of all planting, mulch all planted areas to a minimum depth of 3" with medium bark.
    - ii. Do not allow mulch to smother trees, shrubs or groundcover trunks or stems.
  - J. Clean Up: A general clean up shall be made immediately after and as part of all work done in the area.
- 3.2 **LAWNS (HYDRO-SEEDED AND SOD)**
  - A. Subgrade Preparation: Rotovate all compacted subgrades as noted to promote proper drainage for plant growth. Remove debris from areas. Float or drag subgrades to produce smooth, uniform surfaces. Distribute excess soil evenly throughout areas to be seeded.
  - B. Grading: Crown all planting and lawn areas at center, slope away from buildings at the rate of  $\frac{1}{4}$ " per foot. Flow grades smoothly into one another and produce positive drainage.
  - C. Plant at any time when conditions are favorable for germination of seed and proper working of the soil. Calendar dates for favorable conditions are generally between April 15th and October 1st.
  - D. Install 10-20-20 fertilizers at the rate of 15 lbs. per 1,000 square feet.
  - E. After seeding has been completed, water all areas systematically to promote seed germination and protect new growth.
  - F. Reseeding: Approximately 21 days after germination, any barren area four (4) feet in diameter or larger shall be reseeded at the specified application rate. In the event of unusual weather, overseeding may be required at a time when weather conditions are suitable for germination. Application rate for overseeding shall be determined by the Landscape Architect but shall not exceed original rate.
  - G. Watering: Once germination is consistent over the field and the seedlings are averaging 1" in height, the watering schedule may be reduced to less frequent intervals. Maintain soil moisture without puddling. The soil surface can be allowed to dry between waterings at this point.
  - H. Fertilizing: Fertilize all areas again six (6) weeks after seeding with Lilly Miller 18-3-6 "Royal Green Optimum Soil Supplement" at the rate of 5 lbs. per 1,000 square feet, or Par Ex 24-4-12 at the rate of 6.25 lbs. per 1,000 per square feet.
  - I. Lawn Maintenance: Contractor shall be responsible for maintenance of lawn area until Final Completion. Maintenance shall begin following installation and include watering, reseeding, mowing, edging, fertilizing, repair of erosion damage and other operations necessary for proper maintenance of the Project. The Contractor shall be responsible for the first mowing of the lawn and subsequent mowings on a regular basis until Final Completion. If the Contractor fails to cut the lawn on a regular basis, the Owner will cut the lawn and backcharge the Contractor.
  - J. Acceptance of Lawn: Final acceptance of hydro-seed lawn areas shall be based on a uniform stand of grass with 90% germination and 95% control of broadleaf weeds. Final acceptance of seeded lawn shall also be based on uniform, healthy, vigorous growth with no dry or dead spots in any areas. Lawn shall have been mowed a minimum of one time.
  - K. Identification of Continuing Maintenance Requirements: It shall be the responsibility of the Contractor to identify any and all maturation of this project. Maintenance tasks outlined shall be submitted in writing to the Owner prior to Final Completion and shall identify special needs, time requirements, and duration of maintenance within the next one year to Owner.

- 3.3 **HYDROSEEDING APPLICATION:** Hydraulically apply cellulose fiber mulch material with grass seed homogeneously in emulsion slurry. The equipment shall have an integral agitation system capable of mixing and maintaining materials homogeneously in solution. Hydroseed may be applied to native soil as directed.

- 3.4 **SOD:** A sun shade locally grown sod will be installed. Please contact landscape architect to approve material's source.

## NOTES FOR CONTRACTOR

1. Cascade design group makes no verbal or implied warranties in relation to plant materials specified in these plans or on this project. The landscape installation contractor, at their discretion, will be responsible for any and all warranties regarding the specified plants.

### IRRIGATION

1. If required by local code, landscape contractor to design & install fully automated irrigation system equipped with backflow regulator & rain gauge shut off that provides 100% coverage to all landscape areas.
2. The landscape irrigation contractor will provide a simple irrigation plan including location of the automatic controller, rain gauge, mainline, valves, sprinkler locations, areas that will be drip irrigated, and the specific brands of irrigation products to be installed to the landscape architect for approval. (Unless noted otherwise on plans.)

## BMP T5.13: Post-Construction Soil Quality and Depth

### 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 interflow 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 pervious 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.

### Applications and Limitations

Establishing a minimum soil quality and depth is not the same as preservation of naturally occurring soil and vegetation. However, establishing a minimum soil quality and depth will provide improved on-site management of stormwater flow and water quality.

Soil organic matter can be attained through numerous materials such as compost, composted woody material, biosolids, and forest product residuals. It is important that the materials used to meet this BMP be appropriate and beneficial to the plant cover to be established. Likewise, it is important that imported topsoils improve soil conditions and do not have an excessive percent of clay fines.

This BMP can be considered infeasible on till soil slopes greater than 33 percent.

### Design Guidelines

#### Soil Retention

Retain, in an undisturbed state, the duff layer and native topsoil to the maximum extent practicable. In any areas requiring grading, remove and stockpile the duff layer and topsoil on site in a designated, controlled area, not adjacent to public resources and critical areas, to be reapplied to other portions of the site where feasible.

#### Soil Quality

All areas subject to clearing and grading that have not been covered by impervious surface, incorporated into a drainage facility or engineered as structural fill or slope shall, at project completion, demonstrate the following:

A topsoil layer with a minimum organic matter content of 10% dry weight in planting beds, and 5% organic matter content in turf areas, and a pH from 6.0 to 8.0 or matching the pH of the undisturbed soil. The topsoil layer shall have a minimum depth of eight inches 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 4 inches with some incorporation of the upper material to avoid stratified layers, where feasible.

Mulch planting beds with 2 inches of organic material.

Use compost and other materials that meet the following organic content requirements:

The organic content for "pre-approved" amendment rates can be met only using compost meeting the compost specification for BMP T7.30: Bioretention, with the exception that the compost may have up to 35% biosolids or manure.

The compost must also have an organic matter content of 40% to 65%, and a carbon to nitrogen ratio below 25:1.

The carbon to nitrogen ratio may be as high as 35:1 for plantings composed entirely of plants native to the Puget Sound Lowlands region.

Calculated amendment rates may be met through use of composted material meeting (a.) above; or other organic materials amended to meet the carbon to nitrogen ratio requirements, and not exceeding the contaminant limits identified in Table 220-B, Testing Parameters, in WAC 173-350-220.

The resulting soil should be conducive to the type of vegetation to be established.

### Implementation Options

The soil quality design guidelines listed above can be met by using one of the methods listed below:

Leave undisturbed native vegetation and soil, and protect from compaction during construction.

Amend existing site topsoil or subsoil either at default "pre-approved" rates, or at custom calculated rates based on tests of the soil and amendment.

Stockpile existing topsoil during grading, and replace it prior to planting. Stockpiled topsoil must also be amended if needed to meet the organic matter or depth requirements, either at a default "pre-approved" rate or at a custom calculated rate.

Import topsoil mix of sufficient organic content and depth to meet the requirements.

More than one method may be used on different portions of the same site. Soil that already meets the depth and organic matter quality standards, and is not compacted, does not need to be amended.

### Planning/Permitting/Inspection/Verification Guidelines & Procedures

Local governments are encouraged to adopt guidelines and procedures similar to those recommended in Building Soil: Guidelines and Resources for Implementing Soil Quality and Depth BMP T5.13 in WDOE Stormwater Management Manual for Western Washington (Stenn et al., 2016).

### Maintenance

Establish soil quality and depth toward the end of construction and once established, protect from compaction, such as from large machinery use, and from erosion.

Plant vegetation and mulch the amended soil area after installation.

Leave plant debris or its equivalent on the soil surface to replenish organic matter.

Reduce and adjust, where possible, the use of irrigation, fertilizers, herbicides and pesticides, rather than continuing to implement formerly established practices.

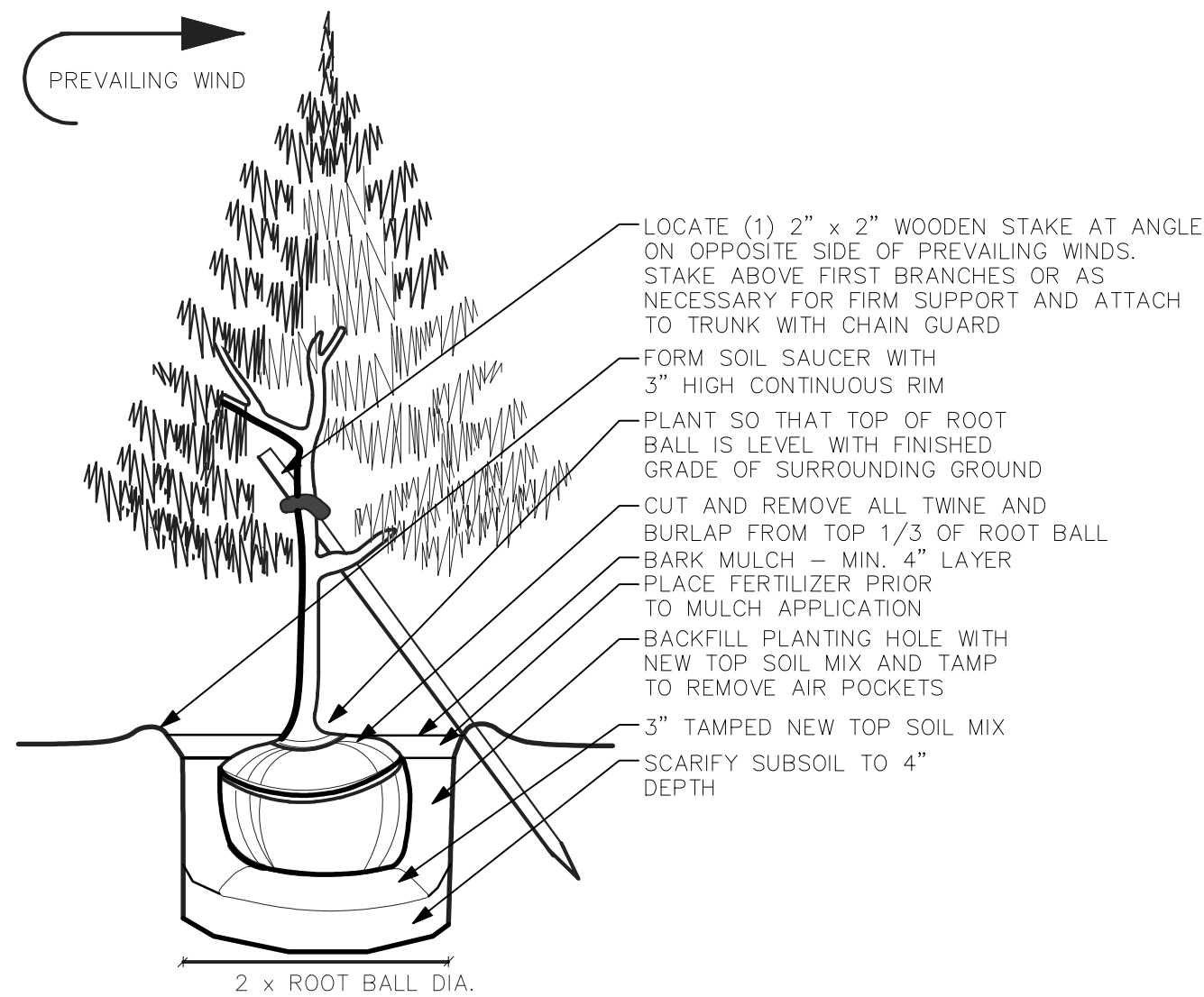
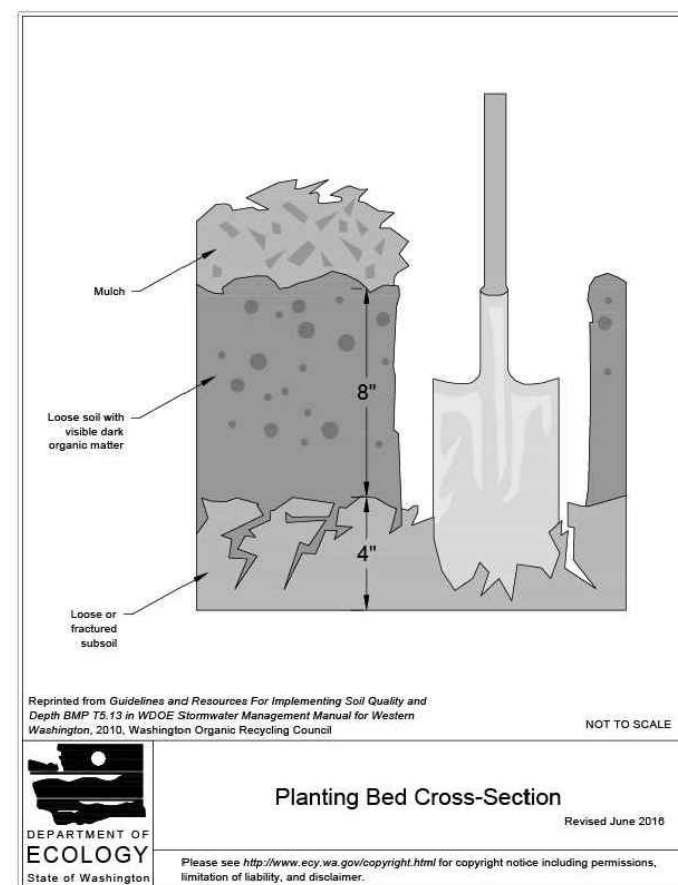
### Runoff Model Representation

All areas meeting the soil quality and depth design criteria may be entered into approved runoff models as "Pasture" rather than "Lawn/Landscaping".

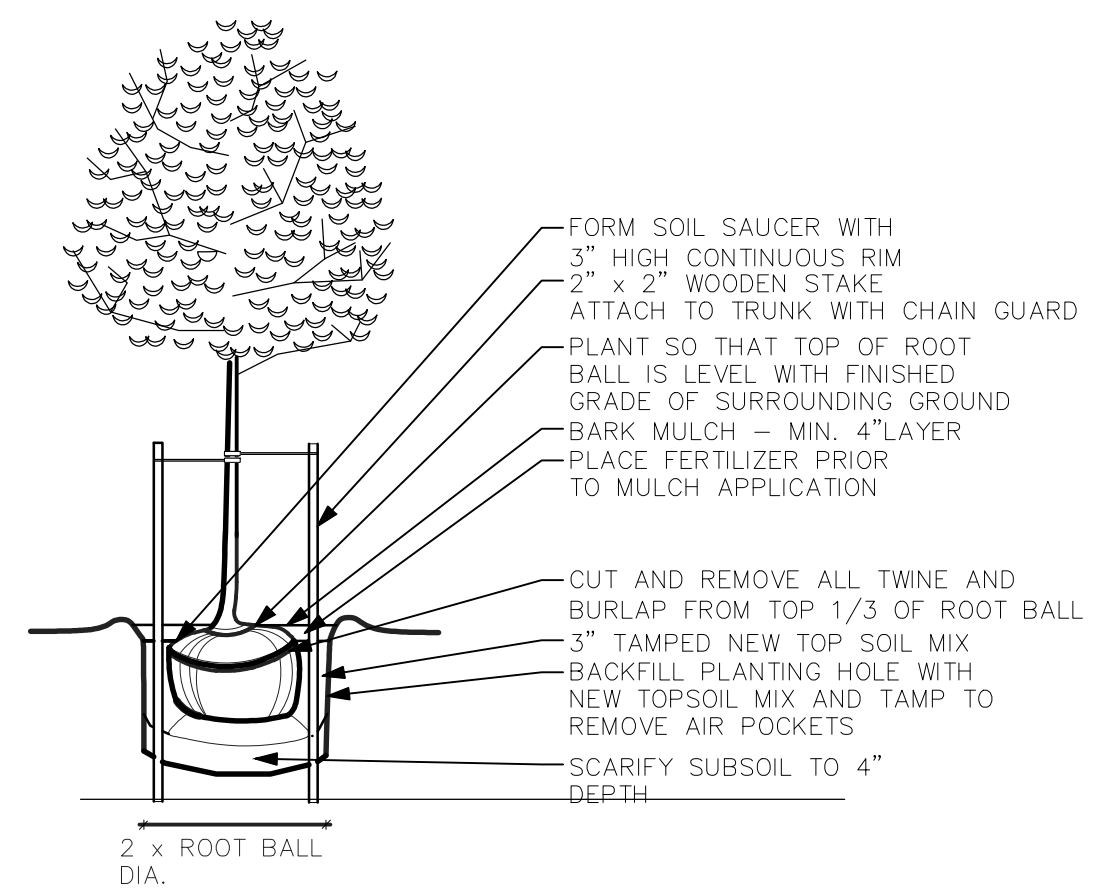
Washington State Department of Ecology

2019 Stormwater Management Manual for Western Washington (2019 SWMMWW)

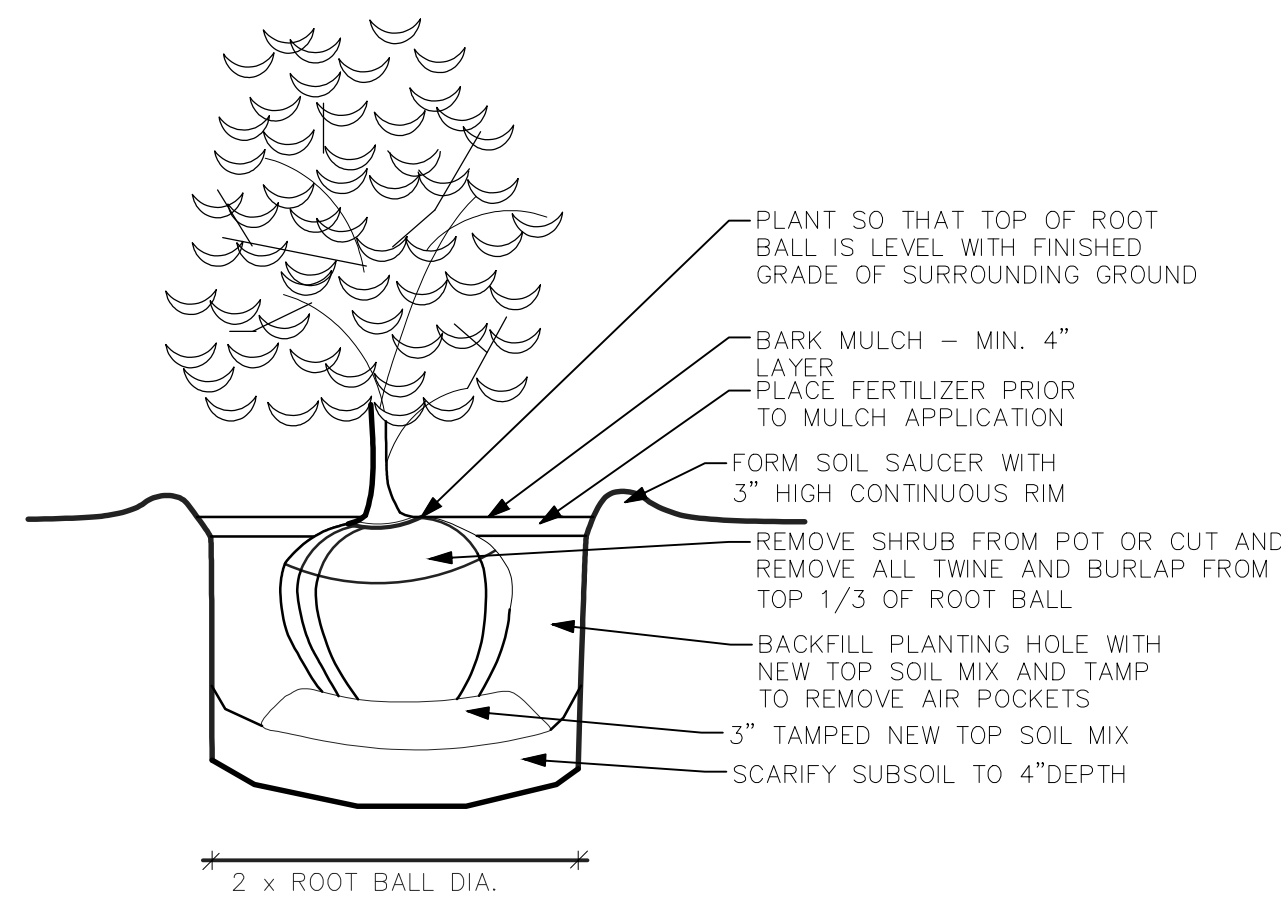
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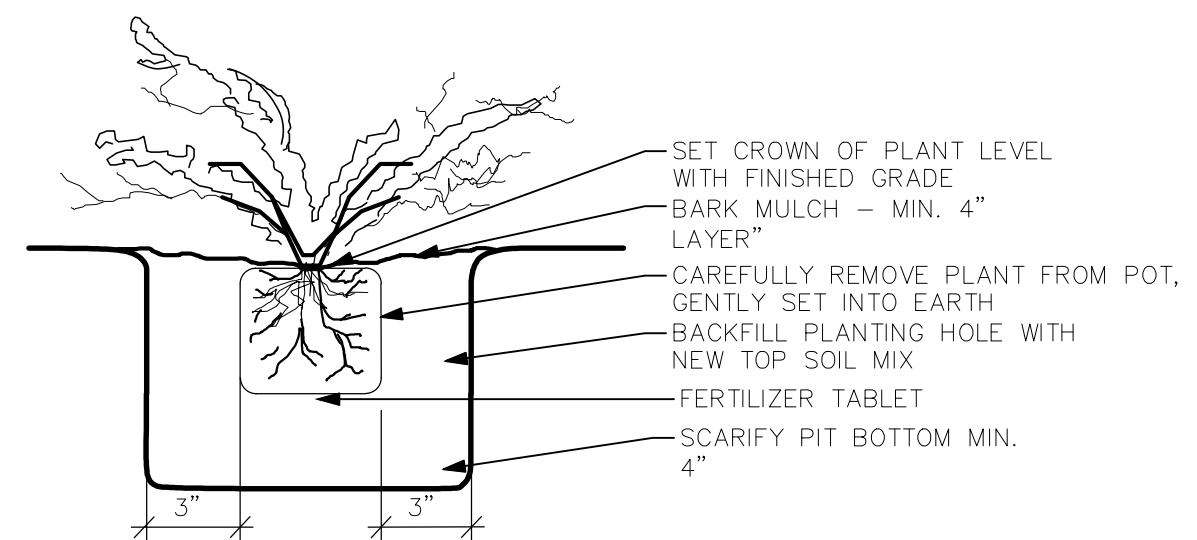
EVERGREEN TREE PLANTING DETAIL NTS



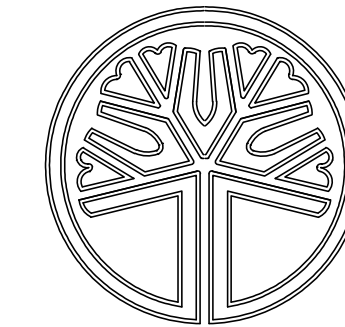
DECIDUOUS TREE PLANTING DETAIL NTS



SHRUB PLANTING DETAIL NTS



GROUND COVER PLANTING DETAIL NTS



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