



November 17, 2016

City of Camas, Community Development
Robert Maul, Planning Manager
616 NE 4th Avenue
Camas, WA 98607

Re: Addendum to the Oregon White Oak Advance Mitigation Plan | Green Mountain Mixed Use PRD | Camas, Washington | City File No. SUB14-02

Dear Mr. Maul:

Ecological Land Services, Inc. (ELS) was contracted by CLB Washington Options Solutions, LLC to address impacts to an existing oak mitigation area in Stream A's buffer that were unforeseen at the time the *Oregon White Oak Advance Mitigation Plan for Green Mountain Mixed Use PRD (Mitigation Plan)*; City File No. SUB14-02) was developed. The applicant proposes modifying and replacing the impacted area with an equivalent area elsewhere within Stream A's buffer, for no net loss of oak mitigation area.

The advance oak mitigation areas were installed in April 2016 within a portion of Stream A's buffer. Phase 2 of the PRD, which had not been designed when the advance oak mitigation plan was developed, consists of construction elements that impact a small section of the advance oak mitigation area. Specifically, a stream crossing for a road and pedestrian trail for Phase 2 of the PRD are proposed within the advance mitigation areas. The originally proposed road crossing was not a viable location due to an intersection spacing requirement at NE Boxwood and NE 28th/NE Goodwin to maximize spacing from the proposed road to the neighboring Green Mountain Estates development. The only practicable alternative was to move the intersection west, and cross the advance oak mitigation, then replace the plantings in the area originally designed for the road crossing. The *Mitigation Plan* allowed some flexibility if future development was constrained by the oak mitigation areas, as the legal mechanism to preserve the oak mitigation areas in perpetuity will not be recorded until adjacent areas have been developed. Given that flexibility, the applicant proposes modifying the *Mitigation Plan* and replacing the impacted oak mitigation area with an equivalent area elsewhere within the same buffer.

A total of 3,089 square feet of existing advance oak mitigation area along Stream A's buffer will be impacted by the proposed stream crossing for Phase 2. The impacted area will be replaced at a 1:1 ratio by transplanting plants within the impacted area, and replacing plants as needed, within a 3,089 square foot region on the eastern end of the existing advance oak mitigation, for no net loss of mitigation area (Table 1; Figure 5).

Table 1. Advance Oak Mitigation Area Impacts and Proposed Mitigation

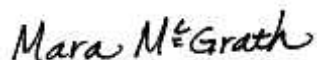
Critical Area	Location	Impact Area (sq. ft.)	Mitigation			
			Type	Ratio	Location	Area (sq. ft.)
Advance Oak Mitigation Area	Stream A Buffer	3,089	Replacement of Oak Establishment/ Enhancement Area	1:1	Stream A Buffer	3,089
					Total	3,089

The modified oak mitigation area's planting specifications, performance standards, maintenance, monitoring, and long-term protection will be as previously described in the *Oregon White Oak Advance Mitigation Plan*. The plants will only be transplanted while the plants are dormant, and will be installed immediately after removal from the ground. If any plants are not able to be transplanted within the new area in the northeast side of Wetland D's buffer, these plants will be replaced with the same species to make up any deficiencies in plant quantity. Common situations that may lead to replacing plants include:

- Damage to the roots while removing the plant,
- damage during transport,
- the plant is dead, or
- the plant is not robust enough to survive transplanting.

If you have any questions or concerns regarding the addendum to the advance oak mitigation plan, please feel free to contact Mara McGrath at mara@eco-land.com, or Lacey Hoffmann at lacey@eco-land.com, or at (360) 578-1371.

Sincerely,



Mara McGrath, PWS
Senior Ecologist



Lacey Hoffmann
Biologist

Attachments:

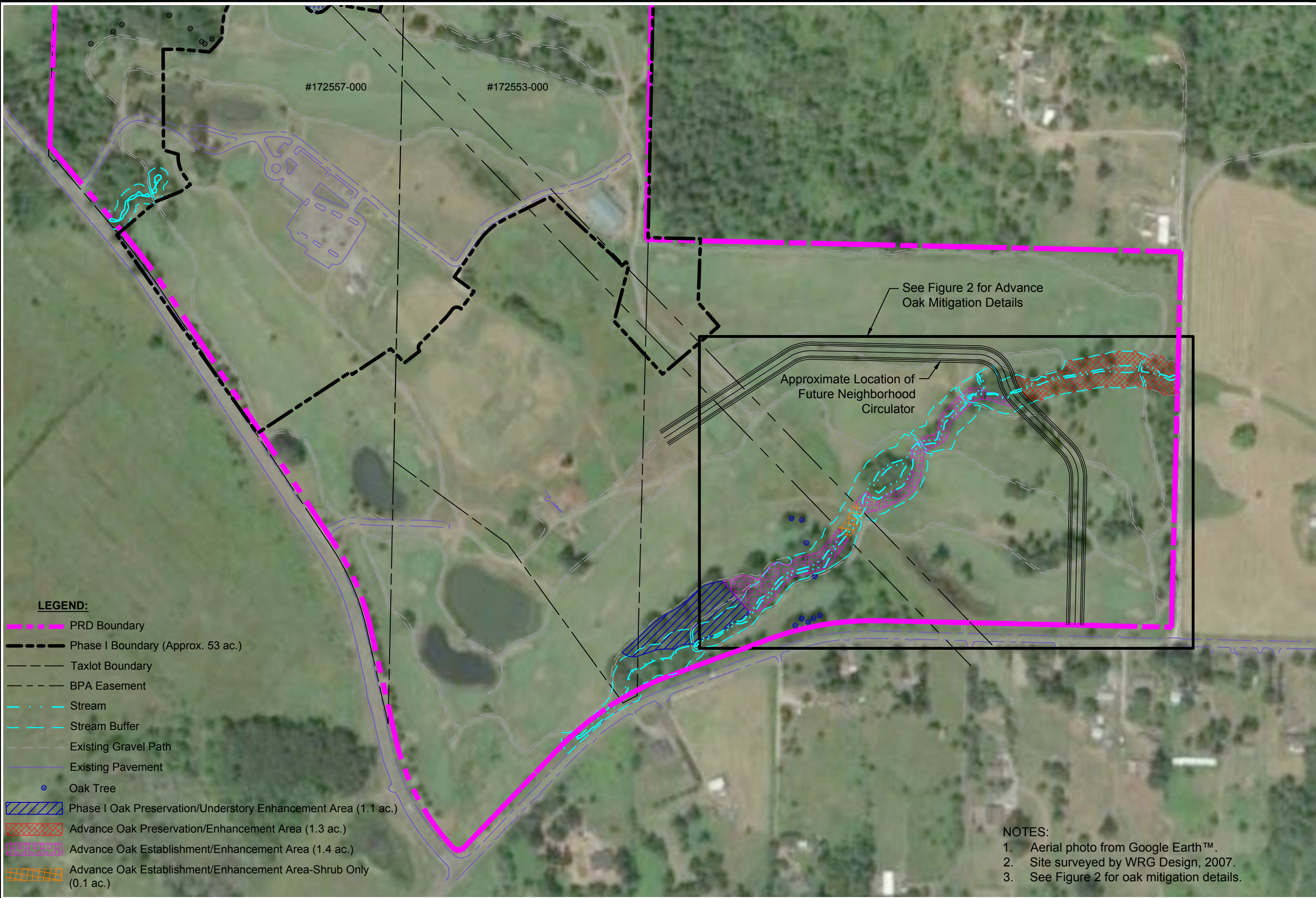
- Figure 1 Site Map
- Figure 2 Advance Oak Mitigation Details
- Figure 3 Cross Section A
- Figure 4 Cross Sections B & C
- Figure 5 Advance Oak Mitigation Area






Cc: Ralph Emerson, CLB Washington Options Solutions, LLC
John Schmidt, Metropolitan Land Group, LLC

Attachments




- Figure 1 Site Map
- Figure 2 Advance Oak Mitigation Details
- Figure 3 Cross Section A
- Figure 4 Cross Sections B & C
- Figure 5 Advance Oak Mitigation Area

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-  PRD Boundary
 OHWM of Type Np Stream
 50' Stream Buffer
 Existing Gravel Path
 Existing Pavement

Proposed Habitat Features

-  Oak Habitat Barrier/
Oak Habitat Signage
-  Horizontal Log (8 total)
-  Bird Box (8 total)

Approximate Location of Future Neighborhood Circulator

Oak Establishment/Enhancement

- Oak Establishment/
Enhancement--Shrub Only

PLANTING DETAIL
Not to Scale

10' Spacing

6' Spacing

12' Spacing-

6' Spacing

6' Spacing

- Oak Preservation/Enhancement

Plant specifications for advance oak mitigation areas














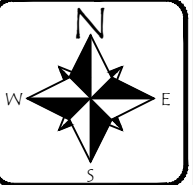
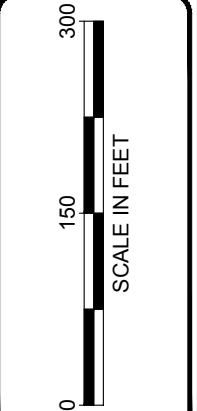
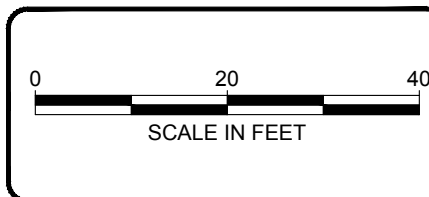
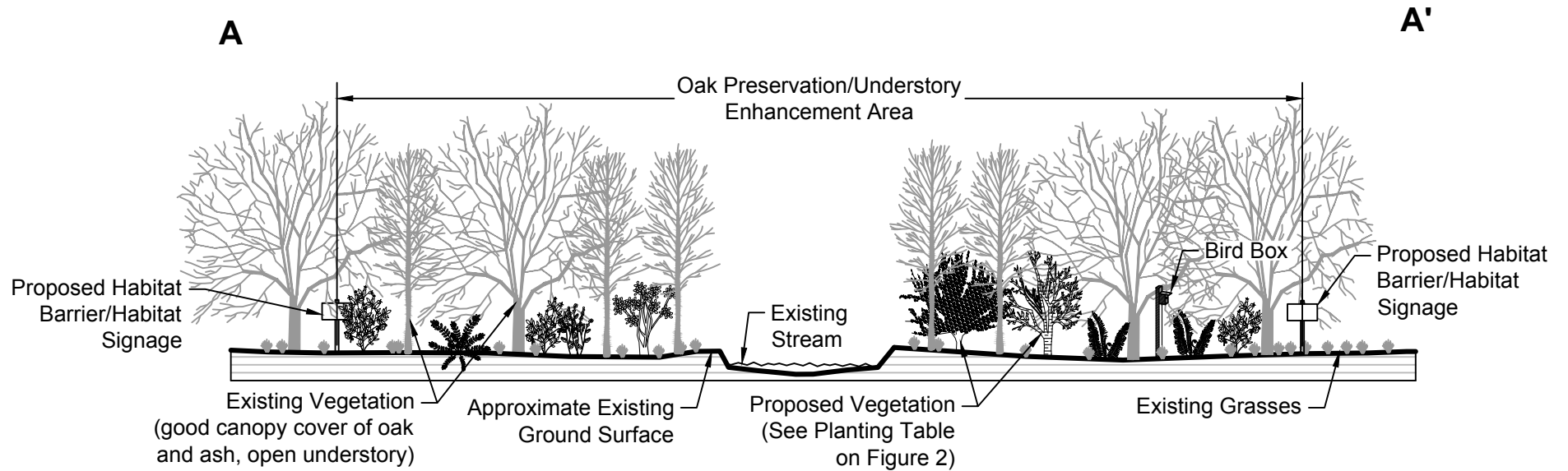
			Quantity		
Species	Spacing (feet on center)	Size ¹	A. Preservation/ Enhance. Area (1.3 ac)	B. Establishment/ Enhance. Area (1.4 ac)	C. Shrub-Only Establishment/Enhance. Area (0.1 ac)
Tree Stratum					
 Bigleaf maple (<i>Acer macrophyllum</i> , FACU)	10	18-36 inch bareroot	--	50	--
 Red alder (<i>Alnus rubra</i> , FAC)	10	18-36 inch bareroot	--	150	--
 Oregon ash (<i>Fraxinus latifolia</i> , FACW)	10	18-36 inch bareroot	--	150	--
 Oregon white oak (<i>Quercus garryana</i> , FACU)	14	1 gal or similar	--	175	--
Total Trees			--	525	--
Shrub Stratum					
Tall understory					
 Vine maple (<i>Acer circinatum</i> , FAC)	6	18-36 inch bareroot	--	25	--
 Western serviceberry (<i>Amelanchier alnifolia</i> , FACU)	6	18-36 inch bareroot	25	50	--
 Black hawthorn (<i>Crataegus douglasii</i> , FAC)	6	18-36 inch bareroot	25	25	--
 Oceanspray (<i>Holodiscus discolor</i> , FACU)	6	18-36 inch bareroot	25	50	--
Mid-understory					
 Nootka rose (<i>Rosa nutkana</i> , FAC)	6	18-36 inch bareroot	150	150	15
 Peafruit rose (<i>Rosa pisocarpa</i> , FAC)	6	18-36 inch bareroot	150	150	15
 Common snowberry (<i>Symphoricarpos albus</i> , FACU)	6	18-36 inch bareroot	150	150	15
Low understory					
 Tall Oregon grape (<i>Mahonia aquifolia</i> , FACU)	6	1-gal or ~10 in ³ "cone-tainer"	50	25	--
 Sword fern (<i>Polystichum munitum</i> , FACU)	6	1-gal or bareroot	25	25	--
Total Shrubs			600	650	45
				1,295	
Herbaceous Stratum					
Native Upland Seed Mix		15-25 lb/ac	10 to 20 lbs	11 to 21 lbs	0.75 to 1.5 lbs
Total Seed Mix			21.75 to 42 lbs		

Figure 2
ADVANCE OAK MITIGATION DETAILS
Green Mountain Mixed Use PRD
Green Mountain Land, LLC
City of Camas, Clark County, Washington
Section 20, Township 2N, Range 3E, W.M.

DATE: 2/24/16
DWN: JKK
REQ. BY: MM
PRJ. MGR: MM
CHK:
PROJECT NO:
2048.01

1157 3rd Ave., Suite 220A
Longview, WA 98632
Phone: (360) 578-1371
Fax: (360) 414-9305
www.eco-land.com

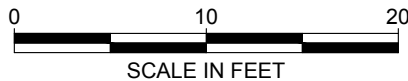
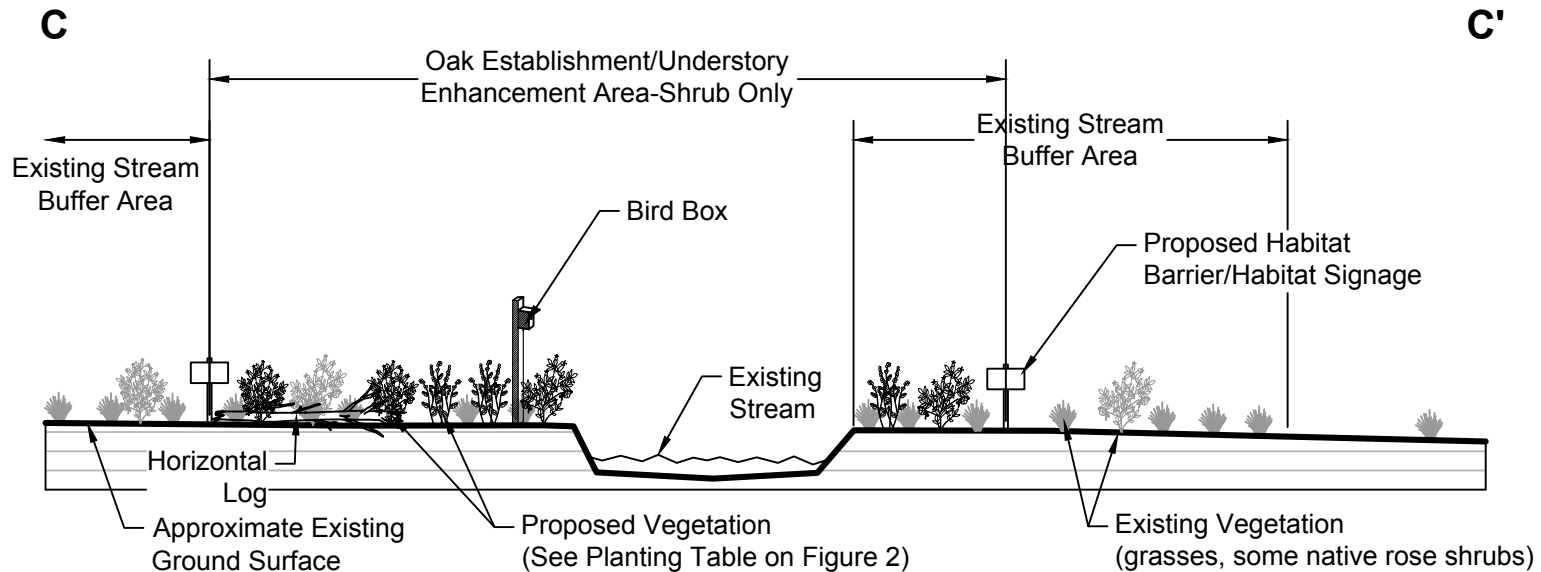
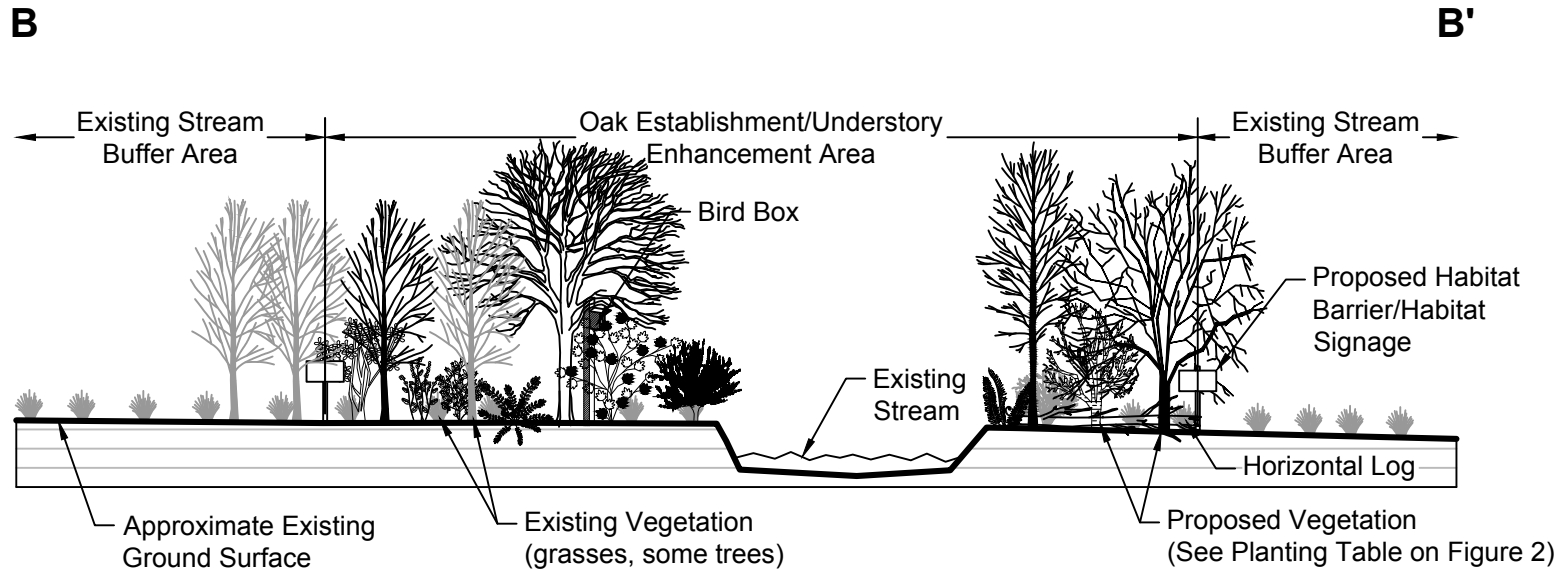




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Figure 3
CROSS SECTION A
Green Mountain Mixed Use PRD
Green Mountain Land, LLC
City of Camas, Clark County, Washington
Section 20, Township 2N, Range 3E, W.M.



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Figure 4
CROSS SECTIONS B & C
Green Mountain Mixed Use PRD
Green Mountain Land, LLC
City of Camas, Clark County, Washington
Section 20, Township 2N, Range 3E, W.M.

