



DATE: June 11, 2017
TO: J. Scott Emmens, DOWL
FROM: Morgan Holen, Consulting Arborist
RE: Kellogg Creek Subdivision – Modified Site Plan Tree Protection Recommendations

MHA17033

This memorandum provides supplemental information to the January 4, 2017 arborist report for the Kellogg Creek Subdivision project in Milwaukie, Oregon, based on site plan modifications and discussion during an on-site meeting that occurred on June 8, 2017. I met with J. Scott Emmens of Dowl at the site, along with Brett Kolver (City of Milwaukie), Randy Myers (Brownstone Homes), and Chris Runyard (local ecologist). We discussed tree protection in the southwest corner of the site in terms of street improvements along Kellogg Creek Drive and 12 proposed building lots adjacent to a grove of Oregon white oak (*Quercus garryana*) trees.

The modified site plan limits encroachment towards the oak trees closest to the road by meandering the sidewalk north through the grove. Under this scenario, the existing sidewalk will be removed, the street will be widened to create a bicycle lane, and a new curb will be constructed in approximately the same location as the back of the existing sidewalk. The proposed street construction is limited to the existing disturbed area. Recommendations:

- Exploratory Excavation.** Prior to construction, conduct exploratory excavation along the back of the existing sidewalk to the depth of the proposed new curb using either an airspade or a hydrovac; a Qualified Tree Service should perform this work. Coordinate with the project arborist to visually assess the exposed roots in terms of quantity, size, location, and condition. The arborist should determine whether individual roots are critical to the health or stability of the adjacent trees and prescribe additional treatment recommendations as needed. Such treatments could include pruning non-critical roots clean to sound wood at the limits of proposed work or developing design alternatives to preserve roots determined to be critical intact within the new street section. Performing exploratory excavation upfront will provide the best information to inform site design and avoid delays at the time of construction.
- Modified Profile.** The new sidewalk meandering through the oak grove should be built up from existing grade with no excavation using a modified profile (Figure 1). The profile includes removal of the uppermost organic matter along the sidewalk alignment, placing a layer of permeable geotextile fabric on the ground surface, and clean crushed rock to raise the grade as needed. Surfacing may include asphalt, concrete, or other materials.

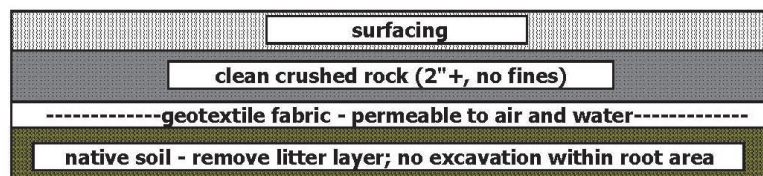


Figure 1. Sample profile for areas within Critical Root Zones. Depth of rock is dependent on grading. Technique based on best management practices.

During the site meeting, we discussed a variety of options to help avoid or minimize work being proposed within and directly adjacent to the tree grove, including: shifting street improvements as far to the south as possible; doing away with the proposed sidewalk along the north side of the road by installing a cross-walk east of the tree grove connecting to the existing sidewalk on the south side of the road; and, raising the grade of the proposed bicycle lane to avoid excavation beneath the existing sidewalk. These approaches are being explored by the City and design team. However, Oregon white oaks have good tolerance for development impacts¹ and from a tree protection perspective, adequate tree protection is possible based on the modified site plan using the tree protection specifications provided in the January 4, 2017 arborist report and the supplemental recommendations provided above. Nevertheless, the alternative approaches discussed during the site meeting, if feasible, could reduce the need for tree protection and provide protection of the understory vegetation.

Prior to the site meeting, J. Scott Emmens flagged the limits of proposed work in the rear of 12 building lots at 119 feet from the western property boundary based on the modified site plan. Tree #2 is the only tree with a crown overlapping a building lot. The crown radius of this 18-inch diameter oak measured 36-feet, but the tree is very one-sided with a strong but stable phototropic lean to the east. Because of its structure, the critical root zone of this tree is more accurately defined using an alternative, but widely accepted method, of one foot radius of tree protection for each inch of trunk diameter². The modified site plan depicts the dripline for consistency with all other trees, but also depicts a radius based on one foot per inch diameter, which is the recommended tree protection zone. A line of protection fencing extending north to south at the rear of these 12 lots will exceed the recommended tree protection area of all trees adjacent to the building lots. Also, tree #25, a 22-inch diameter oak with a 25-foot crown radius overlaps the water quality tract between the road and building lots, but no work is proposed beneath the dripline and protection fencing can be installed at the dripline at a minimum. No impacts to these trees are proposed. Protection recommendations are consistent with Tree Protection Standard 2 in the January 4, 2017 arborist report, specifically:

- **Fencing.** Trees to remain on site shall be protected by installation of tree protection fencing to prevent injury to tree trunks or roots, or soil compaction within the root protection area, which generally coincides with tree driplines (*except for a radius equivalent to one foot of protection for each inch of trunk diameter for tree #2*). Fences shall be chain link fencing on concrete blocks or orange plastic construction fencing on metal stakes. The project arborist shall determine the exact location and type of tree protection fencing. Trees located more than 30-feet from construction activity shall not require fencing.

Based on the proposed site plan modifications, 26 additional trees can be retained during site development, including all of the existing Oregon white oaks. The following table provides an update to Table 2 in the January 4, 2017 arborist report.

¹ N. Matheny & J.R. Clark. (1998) Trees and Development: A Technical Guide to Preservation of Trees During Land Development. International Society of Arboriculture. Page 176.

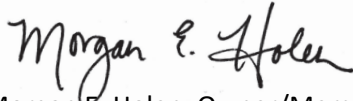
² K. Fite & E.T. Smiley. (2008) Best Management Practices: Managing Trees During Construction. International Society of Arboriculture. Page 12.

Revised Table 2. Count of Trees by Treatment Recommendation and General Condition Rating.

| Treatment Recommendation | General Condition Rating | | | | Total | Percent |
|--------------------------|--------------------------|------------|------------|------------|------------|-------------|
| | Dead | Poor | Fair | Good | | |
| Retain | 9 | 44 | 46 | 86 | 185 | 83% |
| Remove | | 10 | 20 | 6 | 36 | 17% |
| Total | 9 | 54 | 66 | 92 | 221 | 100% |
| Percent | 4% | 24% | 30% | 42% | | |

The client may choose to accept or disregard the recommendations contained herein, or seek additional advice. Neither this author nor Morgan Holen & Associates, LLC, have assumed any responsibility for liability associated with the trees on or adjacent to this site. Thank you for choosing Morgan Holen & Associates, LLC, to provide consulting arborist services for the Kellogg Creek Subdivision project. Please contact us if you have questions or need any additional information or further assistance.

Thank you,
Morgan Holen & Associates, LLC



Morgan E. Holen, Owner/Member
ISA Board Certified Master Arborist, PN-6145B
ISA Tree Risk Assessment Qualified
Forest Biologist

Enclosures: MHA16090 Kellogg Creek Subdivision – Tree Data 11-18-16 Rev. 6-8-17



| No. | Common Name | Species Name | DBH ¹ | C-Rad ² | Cond ³ | Comments | Treatment |
|-----|------------------|---------------------------|------------------|--------------------|-------------------|--|-----------|
| 1 | Oregon white oak | <i>Quercus garryana</i> | 18 | 16 | G | | Retain |
| 2 | Oregon white oak | <i>Quercus garryana</i> | 18 | 38 | F | phototropic lean, one-sided to east | Retain |
| 3 | Oregon white oak | <i>Quercus garryana</i> | 22 | 24 | F | | Retain |
| 4 | Oregon white oak | <i>Quercus garryana</i> | 28 | 26 | G | | Retain |
| 5 | Scouler's willow | <i>Salix scouleriana</i> | 12 | 12 | P | | Remove |
| 6 | Oregon white oak | <i>Quercus garryana</i> | 12 | 12 | P | | Retain |
| 7 | Oregon white oak | <i>Quercus garryana</i> | 14 | 12 | F | | Retain |
| 8 | Oregon white oak | <i>Quercus garryana</i> | 10 | 12 | P | | Retain |
| 9 | Oregon white oak | <i>Quercus garryana</i> | 28 | 23 | G | | Retain |
| 10 | Oregon white oak | <i>Quercus garryana</i> | 20 | 28 | F | | Retain |
| 11 | Oregon white oak | <i>Quercus garryana</i> | 38 | 32 | G | | Retain |
| 12 | Oregon white oak | <i>Quercus garryana</i> | 24 | 24 | G | | Retain |
| 13 | Oregon ash | <i>Fraxinus latifolia</i> | 12 | 16 | P | | Retain |
| 14 | Oregon ash | <i>Fraxinus latifolia</i> | 15 | 14 | G | | Retain |
| 15 | Oregon ash | <i>Fraxinus latifolia</i> | 12 | 12 | P | | Retain |
| 16 | Oregon ash | <i>Fraxinus latifolia</i> | 2x14 | 12 | P | | Retain |
| 17 | Oregon ash | <i>Fraxinus latifolia</i> | 16 | 16 | F | | Retain |
| 18 | Oregon ash | <i>Fraxinus latifolia</i> | 2x16 | 18 | G | | Retain |
| 19 | Oregon ash | <i>Fraxinus latifolia</i> | 24 | 26 | G | | Retain |
| 20 | Oregon ash | <i>Fraxinus latifolia</i> | 24 | 28 | P | | Retain |
| 21 | Oregon ash | <i>Fraxinus latifolia</i> | 8 | 8 | F | | Retain |
| 22 | Oregon white oak | <i>Quercus garryana</i> | 23 | 18 | P | | Retain |
| 23 | Oregon white oak | <i>Quercus garryana</i> | 22 | 21 | G | | Retain |
| 24 | Oregon white oak | <i>Quercus garryana</i> | 28 | 26 | G | off-site | Retain |
| 25 | Oregon white oak | <i>Quercus garryana</i> | 22 | 25 | G | | Retain |
| 26 | Oregon white oak | <i>Quercus garryana</i> | 2x16 | 34 | F | | Retain |
| 27 | Oregon white oak | <i>Quercus garryana</i> | 14 | 16 | P | one-sided to north | Retain |
| 28 | Oregon white oak | <i>Quercus garryana</i> | 22 | 30 | G | | Retain |
| 29 | Oregon ash | <i>Fraxinus latifolia</i> | 18 | 15 | P | | Retain |
| 30 | Oregon white oak | <i>Quercus garryana</i> | 12 | 12 | P | | Retain |
| 31 | Oregon white oak | <i>Quercus garryana</i> | 22 | 22 | G | | Retain |
| 32 | Oregon white oak | <i>Quercus garryana</i> | 21 | 22 | G | | Retain |
| 33 | Oregon white oak | <i>Quercus garryana</i> | 18 | 20 | G | | Retain |
| 34 | Oregon white oak | <i>Quercus garryana</i> | 18 | 15 | G | | Retain |
| 35 | Oregon white oak | <i>Quercus garryana</i> | 2x20 | 32 | G | | Retain |
| 36 | Oregon white oak | <i>Quercus garryana</i> | 36 | 30 | G | | Retain |
| 37 | Oregon white oak | <i>Quercus garryana</i> | 26 | 21 | G | | Retain |
| 38 | Oregon white oak | <i>Quercus garryana</i> | 29 | 24 | G | | Retain |



| No. | Common Name | Species Name | DBH ¹ | C-Rad ² | Cond ³ | Comments | Treatment |
|-----|----------------------|------------------------------|------------------|--------------------|-------------------|------------------|-----------|
| 41 | pin oak | <i>Quercus palustris</i> | 18 | 19 | F | | Retain |
| 42 | pin oak | <i>Quercus palustris</i> | 22 | 20 | G | | Retain |
| 43 | pin oak | <i>Quercus palustris</i> | 21 | 23 | G | | Retain |
| 44 | pin oak | <i>Quercus palustris</i> | 18 | 18 | G | | Retain |
| 45 | pin oak | <i>Quercus palustris</i> | 18 | 19 | G | | Retain |
| 46 | pin oak | <i>Quercus palustris</i> | 18 | 24 | G | | Retain |
| 47 | pin oak | <i>Quercus palustris</i> | 21 | 18 | G | | Retain |
| 48 | plum | <i>Prunus spp.</i> | 12 | 8 | G | | Retain |
| 49 | plum | <i>Prunus spp.</i> | 12 | 8 | G | | Retain |
| 50 | Douglas-fir | <i>Pseudotsuga menziesii</i> | 2x16 | 14 | G | | Retain |
| 51 | Norway maple | <i>Acer platanoides</i> | 14 | 12 | G | nuisance species | Retain |
| 52 | Norway maple | <i>Acer platanoides</i> | 14 | 14 | G | nuisance species | Retain |
| 53 | Norway maple | <i>Acer platanoides</i> | 16 | 12 | G | nuisance species | Retain |
| 54 | Norway maple | <i>Acer platanoides</i> | 13 | 14 | G | nuisance species | Retain |
| 55 | Norway maple | <i>Acer platanoides</i> | 19 | 13 | G | nuisance species | Retain |
| 56 | Norway maple | <i>Acer platanoides</i> | 12 | 12 | G | nuisance species | Retain |
| 57 | Norway maple | <i>Acer platanoides</i> | 14 | 12 | G | nuisance species | Retain |
| 58 | Norway maple | <i>Acer platanoides</i> | 15 | 12 | G | nuisance species | Retain |
| 59 | Norway maple | <i>Acer platanoides</i> | 14 | 13 | G | nuisance species | Retain |
| 60 | European white birch | <i>Betula pendula</i> | 12 | 8 | F | nuisance species | Retain |
| 61 | Japanese maple | <i>Acer palmatum</i> | 12 | 12 | G | | Retain |
| 62 | European white birch | <i>Betula pendula</i> | 14 | 14 | F | nuisance species | Retain |
| 63 | Norway maple | <i>Acer platanoides</i> | 19 | 16 | G | nuisance species | Retain |
| 64 | Norway maple | <i>Acer platanoides</i> | 12 | 11 | G | nuisance species | Retain |
| 65 | Norway maple | <i>Acer platanoides</i> | 15 | 15 | G | nuisance species | Retain |
| 66 | Norway maple | <i>Acer platanoides</i> | 20 | 16 | G | nuisance species | Retain |
| 67 | Norway maple | <i>Acer platanoides</i> | 17 | 14 | G | nuisance species | Retain |
| 68 | Norway maple | <i>Acer platanoides</i> | 15 | 13 | G | nuisance species | Retain |
| 69 | Norway maple | <i>Acer platanoides</i> | 14 | 14 | G | nuisance species | Retain |
| 70 | Norway maple | <i>Acer platanoides</i> | 17 | 15 | G | nuisance species | Retain |
| 71 | Norway maple | <i>Acer platanoides</i> | 14 | 15 | G | nuisance species | Retain |
| 72 | European white birch | <i>Betula pendula</i> | 10 | 10 | G | nuisance species | Retain |
| 73 | pin oak | <i>Quercus palustris</i> | 18 | 20 | F | | Retain |
| 74 | English hawthorn | <i>Crataegus monogyna</i> | 10 | 8 | F | nuisance species | Retain |
| 75 | red alder | <i>Alnus rubra</i> | 16 | 15 | F | | Retain |
| 76 | red alder | <i>Alnus rubra</i> | 3x12 | 18 | F | | Retain |
| 77 | Oregon ash | <i>Fraxinus latifolia</i> | 12 | 15 | G | | Retain |
| 78 | red alder | <i>Alnus rubra</i> | 12 | 15 | G | | Retain |
| 79 | red alder | <i>Alnus rubra</i> | 12 | 13 | P | | Retain |



| No. | Common Name | Species Name | DBH ¹ | C-Rad ² | Cond ³ | Comments | Treatment |
|-----|------------------|----------------------------|------------------|--------------------|-------------------|------------------|-----------|
| 80 | red alder | <i>Alnus rubra</i> | 20 | 4 | D | nesting cavities | Retain |
| 81 | black cottonwood | <i>Populus trichocarpa</i> | 21 | 14 | G | | Retain |
| 82 | Oregon ash | <i>Fraxinus latifolia</i> | 8 | 10 | P | | Retain |
| 83 | pin oak | <i>Quercus palustris</i> | 18 | 12 | F | | Retain |
| 84 | Scouler's willow | <i>Salix scouleriana</i> | 14 | 14 | P | | Retain |
| 85 | pin oak | <i>Quercus palustris</i> | 8 | 8 | P | | Retain |
| 86 | Scouler's willow | <i>Salix scouleriana</i> | 14 | | G | | Remove |
| 87 | black cottonwood | <i>Populus trichocarpa</i> | 2x14 | | G | | Remove |
| 88 | black cottonwood | <i>Populus trichocarpa</i> | 10 | | G | | Remove |
| 89 | black cottonwood | <i>Populus trichocarpa</i> | 12 | | G | | Remove |
| 90 | Scouler's willow | <i>Salix scouleriana</i> | 12 | | P | | Remove |
| 91 | black cottonwood | <i>Populus trichocarpa</i> | 10 | 11 | F | | Retain |
| 92 | black cottonwood | <i>Populus trichocarpa</i> | 8 | 10 | F | | Retain |
| 93 | black cottonwood | <i>Populus trichocarpa</i> | 14 | 13 | G | | Retain |
| 94 | black cottonwood | <i>Populus trichocarpa</i> | 12 | 12 | F | | Retain |
| 95 | black cottonwood | <i>Populus trichocarpa</i> | 12 | 12 | G | | Retain |
| 96 | black cottonwood | <i>Populus trichocarpa</i> | 12 | 12 | G | | Retain |
| 97 | black cottonwood | <i>Populus trichocarpa</i> | 8 | 10 | P | | Retain |
| 98 | black cottonwood | <i>Populus trichocarpa</i> | 12 | 12 | G | | Retain |
| 99 | black cottonwood | <i>Populus trichocarpa</i> | 12 | 12 | G | | Retain |
| 100 | Oregon white oak | <i>Quercus garryana</i> | 17 | 18 | F | | Retain |
| 101 | Oregon white oak | <i>Quercus garryana</i> | 28 | 28 | F | | Retain |
| 102 | Oregon ash | <i>Fraxinus latifolia</i> | 6x8 | 14 | P | | Retain |
| 103 | Oregon white oak | <i>Quercus garryana</i> | 16 | 13 | G | | Retain |
| 104 | English hawthorn | <i>Crataegus monogyna</i> | 10 | | P | nuisance species | Remove |
| 105 | Oregon white oak | <i>Quercus garryana</i> | 26 | 26 | G | | Retain |
| 106 | Oregon white oak | <i>Quercus garryana</i> | 24 | 24 | P | decay | Retain |
| 107 | Scouler's willow | <i>Salix scouleriana</i> | 18 | 15 | P | decay | Retain |
| 108 | Scouler's willow | <i>Salix scouleriana</i> | 2x16 | 15 | F | | Retain |
| 109 | English hawthorn | <i>Crataegus monogyna</i> | 10 | | P | nuisance species | Remove |
| 110 | English hawthorn | <i>Crataegus monogyna</i> | 10 | | F | nuisance species | Remove |
| 111 | Scouler's willow | <i>Salix scouleriana</i> | 5x10 | | P | | Remove |
| 112 | Oregon white oak | <i>Quercus garryana</i> | 10 | 14 | P | | Retain |
| 113 | Oregon white oak | <i>Quercus garryana</i> | 12 | 14 | P | | Retain |
| 114 | Oregon white oak | <i>Quercus garryana</i> | 24 | 24 | G | | Retain |
| 115 | Scouler's willow | <i>Salix scouleriana</i> | 8x10 | | P | | Remove |
| 116 | English hawthorn | <i>Crataegus monogyna</i> | 14 | | F | nuisance species | Remove |
| 117 | black cottonwood | <i>Populus trichocarpa</i> | 12 | 10 | G | | Retain |
| 118 | black cottonwood | <i>Populus trichocarpa</i> | 12 | 10 | G | | Retain |



| No. | Common Name | Species Name | DBH ¹ | C-Rad ² | Cond ³ | Comments | Treatment |
|-----|------------------|----------------------------|------------------|--------------------|-------------------|------------------|-----------|
| 119 | black cottonwood | <i>Populus trichocarpa</i> | 2x8 | 12 | G | | Retain |
| 120 | black cottonwood | <i>Populus trichocarpa</i> | 8 | 10 | G | | Retain |
| 121 | black cottonwood | <i>Populus trichocarpa</i> | 10 | 11 | G | | Retain |
| 122 | black cottonwood | <i>Populus trichocarpa</i> | 8 | 10 | F | | Retain |
| 123 | Scots pine | <i>Pinus sylvestris</i> | 6 | 10 | P | | Retain |
| 124 | black cottonwood | <i>Populus trichocarpa</i> | 2x10 | 10 | G | | Retain |
| 125 | Oregon ash | <i>Fraxinus latifolia</i> | 6 | 10 | G | | Retain |
| 126 | Oregon ash | <i>Fraxinus latifolia</i> | 8 | 10 | G | | Retain |
| 127 | sweet cherry | <i>Prunus avium</i> | 10 | 14 | D | nuisance species | Retain |
| 128 | Oregon ash | <i>Fraxinus latifolia</i> | 8 | 8 | G | | Retain |
| 129 | Oregon ash | <i>Fraxinus latifolia</i> | 8 | 8 | G | | Retain |
| 130 | Oregon ash | <i>Fraxinus latifolia</i> | 6 | 8 | G | | Retain |
| 131 | Oregon ash | <i>Fraxinus latifolia</i> | 6 | 8 | G | | Retain |
| 132 | Oregon ash | <i>Fraxinus latifolia</i> | 8 | 8 | F | | Retain |
| 133 | Oregon ash | <i>Fraxinus latifolia</i> | 8 | 10 | F | | Retain |
| 134 | Oregon ash | <i>Fraxinus latifolia</i> | 10 | 10 | F | | Retain |
| 135 | English hawthorn | <i>Crataegus monogyna</i> | 10 | 10 | P | nuisance species | Retain |
| 136 | Oregon ash | <i>Fraxinus latifolia</i> | 2x8 | 8 | G | | Retain |
| 137 | Oregon white oak | <i>Quercus garryana</i> | 20 | 25 | G | | Retain |
| 138 | Oregon ash | <i>Fraxinus latifolia</i> | 14 | 16 | P | | Retain |
| 139 | Oregon ash | <i>Fraxinus latifolia</i> | 14 | 18 | F | | Retain |
| 140 | Oregon ash | <i>Fraxinus latifolia</i> | 18 | 20 | G | | Retain |
| 141 | Oregon white oak | <i>Quercus garryana</i> | 16 | 30 | F | | Retain |
| 143 | bigleaf maple | <i>Acer macrophyllum</i> | 8 | 10 | P | | Retain |
| 144 | bigleaf maple | <i>Acer macrophyllum</i> | 12 | 12 | P | split trunk | Retain |
| 145 | Oregon white oak | <i>Quercus garryana</i> | 2x14 | 22 | G | | Retain |
| 146 | Oregon ash | <i>Fraxinus latifolia</i> | 14 | 12 | G | | Retain |
| 147 | Oregon ash | <i>Fraxinus latifolia</i> | 16 | 12 | P | | Retain |
| 148 | Oregon ash | <i>Fraxinus latifolia</i> | 10 | 12 | G | off-site | Retain |
| 149 | Oregon ash | <i>Fraxinus latifolia</i> | 10 | 12 | F | off-site | Retain |
| 150 | Oregon white oak | <i>Quercus garryana</i> | 48 | 27 | G | | Retain |
| 151 | deciduous | unknown | 12 | 10 | D | | Retain |
| 152 | English hawthorn | <i>Crataegus monogyna</i> | 8 | | P | nuisance species | Remove |
| 153 | red alder | <i>Alnus rubra</i> | 12 | 10 | D | | Retain |
| 154 | red alder | <i>Alnus rubra</i> | 14 | 12 | D | | Retain |
| 155 | red alder | <i>Alnus rubra</i> | 2x10 | 8 | P | | Retain |
| 156 | red alder | <i>Alnus rubra</i> | 12 | 12 | P | | Retain |
| 157 | red alder | <i>Alnus rubra</i> | 14 | 12 | F | | Retain |
| 158 | red alder | <i>Alnus rubra</i> | 16 | 12 | P | | Retain |



| No. | Common Name | Species Name | DBH ¹ | C-Rad ² | Cond ³ | Comments | Treatment |
|-----|------------------|---------------------------|------------------|--------------------|-------------------|------------------|-----------|
| 159 | red alder | <i>Alnus rubra</i> | 14 | 10 | P | | Retain |
| 160 | red alder | <i>Alnus rubra</i> | 3x8 | 12 | F | | Retain |
| 161 | Scouler's willow | <i>Salix scouleriana</i> | 14 | 4 | D | | Retain |
| 162 | Oregon ash | <i>Fraxinus latifolia</i> | 10 | 10 | F | | Retain |
| 163 | English hawthorn | <i>Crataegus monogyna</i> | 2x8 | 10 | P | nuisance species | Retain |
| 164 | red alder | <i>Alnus rubra</i> | 12 | 4 | D | | Retain |
| 165 | red alder | <i>Alnus rubra</i> | 12 | 12 | F | | Retain |
| 166 | red alder | <i>Alnus rubra</i> | 12 | 10 | P | | Retain |
| 167 | English hawthorn | <i>Crataegus monogyna</i> | 8 | 8 | G | nuisance species | Retain |
| 168 | red alder | <i>Alnus rubra</i> | 18 | 20 | P | | Retain |
| 169 | red alder | <i>Alnus rubra</i> | 12 | 4 | D | | Retain |
| 170 | red alder | <i>Alnus rubra</i> | 12 | 12 | P | decay | Retain |
| 171 | red alder | <i>Alnus rubra</i> | 12 | 20 | P | decay | Retain |
| 172 | red alder | <i>Alnus rubra</i> | 10 | 8 | P | | Retain |
| 173 | red alder | <i>Alnus rubra</i> | 12 | 4 | D | | Retain |
| 174 | red alder | <i>Alnus rubra</i> | 11 | 12 | F | | Retain |
| 175 | Oregon ash | <i>Fraxinus latifolia</i> | 8 | 10 | F | | Retain |
| 176 | red alder | <i>Alnus rubra</i> | 12 | 14 | F | | Retain |
| 177 | red alder | <i>Alnus rubra</i> | 10 | 10 | F | | Retain |
| 178 | red alder | <i>Alnus rubra</i> | 8 | 8 | P | | Retain |
| 179 | red alder | <i>Alnus rubra</i> | 2x10 | 8 | P | | Retain |
| 180 | red alder | <i>Alnus rubra</i> | 10 | 12 | P | | Retain |
| 181 | red alder | <i>Alnus rubra</i> | 14 | 14 | F | | Retain |
| 182 | red alder | <i>Alnus rubra</i> | 10 | 12 | F | | Retain |
| 183 | red alder | <i>Alnus rubra</i> | 10 | 12 | P | | Retain |
| 184 | red alder | <i>Alnus rubra</i> | 2X14 | 18 | F | | Retain |
| 185 | red alder | <i>Alnus rubra</i> | 18 | 18 | P | | Retain |
| 186 | Scouler's willow | <i>Salix scouleriana</i> | 3x12 | 14 | P | | Retain |
| 187 | Scouler's willow | <i>Salix scouleriana</i> | 2x8 | | P | | Remove |
| 188 | Scouler's willow | <i>Salix scouleriana</i> | 2x10 | | P | | Remove |
| 189 | red alder | <i>Alnus rubra</i> | 2x14 | 17 | G | | Retain |
| 190 | red alder | <i>Alnus rubra</i> | 14 | 16 | F | | Retain |
| 191 | red alder | <i>Alnus rubra</i> | 12 | 10 | F | | Retain |
| 192 | red alder | <i>Alnus rubra</i> | 2x12 | 15 | F | | Retain |
| 193 | red alder | <i>Alnus rubra</i> | 14 | 12 | F | | Retain |
| 194 | Oregon white oak | <i>Quercus garryana</i> | 20 | 16 | G | | Retain |
| 195 | Oregon white oak | <i>Quercus garryana</i> | 20 | 18 | G | | Retain |
| 196 | Oregon white oak | <i>Quercus garryana</i> | 12 | 12 | G | | Retain |
| 197 | Oregon white oak | <i>Quercus garryana</i> | 16 | 21 | F | | Retain |

| No. | Common Name | Species Name | DBH ¹ | C-Rad ² | Cond ³ | Comments | Treatment |
|-----|------------------|----------------------------|------------------|--------------------|-------------------|------------------|-----------|
| 198 | Oregon white oak | <i>Quercus garryana</i> | 8 | 12 | P | | Retain |
| 199 | Oregon white oak | <i>Quercus garryana</i> | 23 | 35 | G | | Retain |
| 200 | Oregon white oak | <i>Quercus garryana</i> | 23 | 31 | G | | Retain |
| 201 | red alder | <i>Alnus rubra</i> | 12 | 10 | P | | Retain |
| 202 | red alder | <i>Alnus rubra</i> | 12 | 10 | F | | Retain |
| 203 | red alder | <i>Alnus rubra</i> | 2x10 | 10 | F | | Retain |
| 204 | black cottonwood | <i>Populus trichocarpa</i> | 16 | | G | | Remove |
| 205 | black cottonwood | <i>Populus trichocarpa</i> | 2x18 | | G | | Remove |
| 206 | Scouler's willow | <i>Salix scouleriana</i> | 4x12 | | P | | Remove |
| 207 | black cottonwood | <i>Populus trichocarpa</i> | 16 | | F | | Remove |
| 208 | black cottonwood | <i>Populus trichocarpa</i> | 2x12 | | F | | Remove |
| 209 | black cottonwood | <i>Populus trichocarpa</i> | 9x10 | | F | | Remove |
| 210 | black cottonwood | <i>Populus trichocarpa</i> | 12 | | F | | Remove |
| 211 | black cottonwood | <i>Populus trichocarpa</i> | 12 | | F | | Remove |
| 212 | black cottonwood | <i>Populus trichocarpa</i> | 12 | | F | | Remove |
| 213 | black cottonwood | <i>Populus trichocarpa</i> | 12 | | F | | Remove |
| 214 | black cottonwood | <i>Populus trichocarpa</i> | 14 | | F | | Remove |
| 215 | black cottonwood | <i>Populus trichocarpa</i> | 16 | | F | | Remove |
| 216 | black cottonwood | <i>Populus trichocarpa</i> | 14 | | F | | Remove |
| 217 | black cottonwood | <i>Populus trichocarpa</i> | 10 | | F | | Remove |
| 218 | black cottonwood | <i>Populus trichocarpa</i> | 14 | | F | | Remove |
| 219 | black cottonwood | <i>Populus trichocarpa</i> | 3x6 | | F | | Remove |
| 220 | black cottonwood | <i>Populus trichocarpa</i> | 12 | | F | | Remove |
| 221 | black cottonwood | <i>Populus trichocarpa</i> | 14 | | F | | Remove |
| 222 | black cottonwood | <i>Populus trichocarpa</i> | 10 | | F | | Remove |
| 223 | black cottonwood | <i>Populus trichocarpa</i> | 2x16 | | F | | Remove |
| 225 | English hawthorn | <i>Crataegus monogyna</i> | 3x8 | | F | nuisance species | Remove |

¹DBH is tree diameter measured at 4.5-feet above ground level in inches; diameter for trees with codominant stems originating below 4.5-feet is reported as quantity of stems x size.

²C-Rad is the average crown radius measured in feet for trees planned for preservation.

³Cond is an arborist assigned rating to generally describe the condition of individual trees as follows-

- D: Dead
- P: Poor Condition
- F: Fair Condition
- G: Good Condition
- E: Excellent Condition

GENERAL COMMENTS:

STEM DECAY IN MOST RED ALDER

ALDER BORDERING STREAM - UNDERMINED ROOTS ON STREAM SIDE