



April 15, 2024

AOA-7121

Lucia Pirzio-Biroli  
lucia@ectypos.com

**SUBJECT: Critical Areas Study for Nestler and Spare Residence  
8265 SE 61<sup>st</sup> Street, Parcel 192280-0210, Mercer Island, WA**

Dear Lucia:

On April 4, 2023 I conducted a wetland and stream reconnaissance on and adjacent to the subject property utilizing the methodology outlined in the May 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*. The site is entirely developed with an existing single-family residence and associated yard areas. No wetlands were identified on or adjacent to the property during the field investigation. One stream (Stream 1) was observed draining from east to west off-site to the south. The ordinary high water (OHW) of the off-site stream was delineated during the field investigation and subsequently surveyed (**Figure 1**).

## **1.0 STREAM 1**

Stream 1 originates from a small spring in the northeast portion of the parcel to the south of the subject property. The upper portion of the watercourse has been historically rock-lined through the existing maintained yard and runoff within the central portion of the riparian corridor goes subsurface. Runoff within the channel re-emerges to the surface in the northwestern portion of the off-site parcel.

At the time of the delineation vegetation along the upper portion of the stream corridor was restricted to maintained yard and scattered Douglas fir (*Pseudotsuga menziesii*) trees. The lower portion of the stream corridor was less maintained and included Himalayan blackberry (*Rubus armeniacus*), rose (*Rosa* sp.), and reed canarygrass (*Phalaris arundinacea*).

Stream 1 is considered a Type Np stream by the City of Mercer Island and requires a 60-foot buffer per MIMC 19.07.180.C.1. An additional 10-foot structure setback from the buffer is required per MIMC 19.07.180.C.7.

## **2.0 PROPOSED PROJECT IMPACTS**

The standard 60-foot watercourse buffer currently extends into the existing residence. The proposed project consists of a re-development and expansion of the existing residence within the buffer (see site plan).

### **2.1 Proposed Buffer Reduction**

The City of Mercer Island allows for the reduction of a watercourse buffer if all of the criteria in MICC 19.07.180.C.5 are met.

*Buffer width reduction shall be allowed provided the following requirements are met:*

- a. *The applicant has demonstrated that buffer averaging would not feasibly allow development;*

The site is entirely developed with the existing residence and associated yard and there are no areas on the property that are suitable for buffer replacement.

- b. *The applicant has demonstrated how impacts will be minimized and that avoidance has been addressed consistent with section 19.07.100, mitigation sequencing;*

Since the buffer extends into the middle of the existing residence it is not possible to avoid buffer impacts and meet the goal of the project. Impacts to the buffer have been minimized to the extent feasible (see Section 2.2 below for mitigation sequencing).

- c. *The applicant has demonstrated how all proposed impacts have been mitigated consistent with subsection E of this section and will not result in a loss of ecological function;*

The current stream buffer is developed with existing structure and yard that does not provide a significant functional benefit to the watercourse. We have prepared a buffer enhancement plan (**Figures 1 through 4**) that will increase the plant species and structural diversity of the watercourse buffer over current conditions. There will be no loss of ecological function as part of the project.

- d. *The proposed buffer width is not less than 75 percent of the standard buffer width at any point; and*

The watercourse buffer will be reduced from 60 feet to 45 feet and will not be less than 75% of the standard buffer.

- e. *The proposed buffer reduction is not proposed in conjunction with buffer averaging.*

Buffer averaging is not proposed.

## **2.2 Mitigation Sequencing**

The City of Mercer Island requires per MICC 19.01.100 that *an applicant for a development proposal or activity shall implement the following sequential measures, listed below in order of preference, to avoid, minimize, and mitigate impacts to environmentally critical areas and associated buffers. Applicants shall document how each measure has been addressed before considering and incorporating the next measure in the sequence:*

- A. *Avoiding the impact altogether by not taking a certain action or parts of an action. The applicant shall consider reasonable, affirmative steps and make best efforts to avoid critical area impacts. However, avoidance shall not be construed to mean mandatory withdrawal or denial of the development proposal or activity if the proposal or activity is an allowed, permitted, or conditional use in this title. In determining the extent to which the proposal should be redesigned to avoid the impact, the code official may consider the purpose, effectiveness, engineering feasibility, commercial availability of technology, best management practices, safety and cost of the proposal and identified changes to the proposal. Development proposals should seek to avoid, minimize and mitigate overall impacts based on the functions and values of all of the relevant critical areas and based on the recommendations of a critical area study. If impacts cannot be avoided through redesign, use of a setback deviation pursuant to Section 19.06.110(C), or because of site conditions or project requirements, the applicant shall then proceed with the sequence of steps in subsections B through E of this section;*

The standard watercourse buffer extends into the middle of the existing residence and it is not possible for the proposed expansion of the residence to occur outside of this buffer and still meet the goal of the project.

- B. *Minimizing impacts by limiting the degree or magnitude of the action and its implementation, using a setback deviation pursuant to Section 19.06.110(C), using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;*

The watercourse buffer impacts are the minimum necessary and are in compliance with the allowed single-family residential modifications in buffers per MICC 19.07.130.A.2 (Section 2.3 below)

- C. *Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;*

An area of existing watercourse buffer on the site that is dominated by invasive species (bamboo and English ivy) would be enhanced with native plantings.

- D. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;*

The native plantings would be preserved in the buffer in perpetuity and the area maintained for a minimum of 5 years as part of an established monitoring and maintenance program.

- E. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or*

Although the area of proposed buffer impact is currently primarily developed with existing decking that does not provide a functional benefit to the watercourse, we have prepared a compensatory mitigation planting plan (**Figures 1 through 4**) that will increase the habitat functions of the watercourse buffer over current conditions.

- F. Monitoring the impact and taking appropriate corrective measures to maintain the integrity of compensating measures.*

A 5 year monitoring program has been developed to ensure success of the proposed buffer enhancement plan.

### **2.3 Buffer Modification**

Structural addition to an existing residence in the buffer is allowed per MICC 19.07.130.A.2 if all of the following criteria are met:

- a. The structure is enlarged not more than a cumulative total of 200 square feet larger than its footprint as of January 1, 2005;*

The proposed structural expansion within the enhanced buffer and BSBL is 109 s.f. and below the allowed threshold.

- b. If the existing, legally established structure is located over or within a wetland or watercourse, no further expansion within the wetland or watercourse is allowed;*

The existing structure is not located over or within a wetland or watercourse.

- c. If the existing legally established structure is located within a wetland or watercourse buffer, the addition may be no closer to the wetland or watercourse than a distance equal to 75 percent of the applicable standard buffer and must also be no closer to the watercourse or wetland than the existing structure;*

All of the proposed modifications are located over existing structure (i.e., elevated deck) and will be no closer to the watercourse than existing structure.

- d. *A critical area study approved by the city demonstrates that impacts have been avoided or minimized and mitigated consistent with Section 19.07.100, mitigation sequencing;*

Mitigation sequencing has been addressed in Section 2.2.

- e. *If the modification or addition is proposed within a geologically hazardous area or associated buffer, a qualified professional provides a statement of risk consistent with Section 19.07.160(B)(3).*

See geotechnical report.

## **2.4 Stormwater Outfall**

As part of the proposed project and per the recommendation of the geotechnical engineer, stormwater will be collected and discharged onto a small gabion mattress along the south property line. The area of the proposed discharge is relatively flat and runoff will then disperse into the area of the existing watercourse. Since the proposed outfall is the replacement of an existing outfall and the total impervious surface on the site will decrease following construction, there should be no impacts associated with the replacement outfall.

## **3.0 PROPOSED BUFFER MITIGATION**

A watercourse buffer enhancement plan has been prepared for the minor unavoidable buffer modifications. As part of the mitigation plan a 373 s.f. degraded portion of the on-site watercourse buffer would be enhanced by the removal of invasive species (bamboo and English ivy) and re-planting with native tree, shrub, and groundcover species.

The proposed plantings have been designed to increase the plant species and structural diversity within the buffer and to provide additional physical and visual screening to the watercourse from the residence. Increasing the plant species and structural diversity within the buffer would also increase the wildlife habitat of the area over current conditions.

### **3.1 Goal, Objective, and Performance Standard for Enhancement Area**

The primary goal of the enhancement plan is to restore the watercourse buffer with native vegetation. To meet this goal, the following objectives and performance standards have been incorporated into the design of the plan:

Objective A: Increase the structural and plant species diversity within the enhancement area.

Performance Standard: There will be 100% survival of all planted species throughout the enhancement area at the end of the first year of planting. Following Year 1, success will be based on an 80% survival rate or areal cover of planted or recolonized native species of 15% after Year 1, 25% after Year 2, 40% after Year 3, and 60% after Year 5.

**Objective B:** Limit the amount of invasive and exotic species within the enhancement area.

**Performance Standard:** After installation and at the end of the fifth year after planting, exotic and invasive plant species will be maintained at levels below 10% total cover in all planted areas.

### **3.2 Monitoring Methodology**

The monitoring program will be conducted for a period of five years, with annual reports submitted to the City of Mercer Island.

Photo-points will be established from which photographs will be taken throughout the monitoring period. These photographs will document general appearance and progress of plant community establishment in the enhancement area. Review of the photos over time will provide a visual representation of the success of the plan.

### **3.3 Maintenance**

Maintenance will be conducted on a routine, year round basis. Additional maintenance needs will be identified and addressed following a twice-yearly maintenance review. Contingency measures and remedial action on the site shall be implemented on an as-needed basis at the direction of the consultant or the owner. Tall grasses and weeds shall be removed at the base of plants to prevent engulfment. Weed control should be performed by hand removal.

### **3.4 Contingency**

All dead plants will be replaced with the same species or an approved substitute species that meets the goal of the enhancement plan. Plant material shall meet the same specifications as originally installed material. Replanting will not occur until after the reason for failure has been identified (e.g., moisture regime, poor plant stock, disease, shade/sun conditions, wildlife damage, etc.). Replanting shall be completed under the direction of the consultant, City of Mercer Island, or the owner.

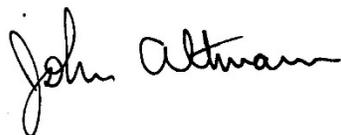
### **3.5 As-built**

Following completion of construction activities, an as-built plan for the enhancement area will be provided to the City of Mercer Island. The plan will identify and describe any changes in relation to the original approved plan.

If you have any questions, please give me a call.

Sincerely,

ALTMANN OLIVER ASSOCIATES, LLC



John Altmann  
Ecologist

# King County iMap



King County, EagleView Technologies, Inc.

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Date: 8/18/2023

Notes:



**King County**



### Legend

- Unpiped Watercourse
  - Type "F" = Fish
  - Type "Np" = Non-Fish
  - Type "Ns" = Non-Fish Seasonal
  - Type "Np" (Unverified)
  - Type "Ns" (Unverified)
- Piped Watercourse
- Address
- Building
- Property Line
- Docks
- Freeway
- Major Street
- Street
- Paved Driveway
- Paved Road
- Paved Parking Area
- Parks
- Lake Washington

Site

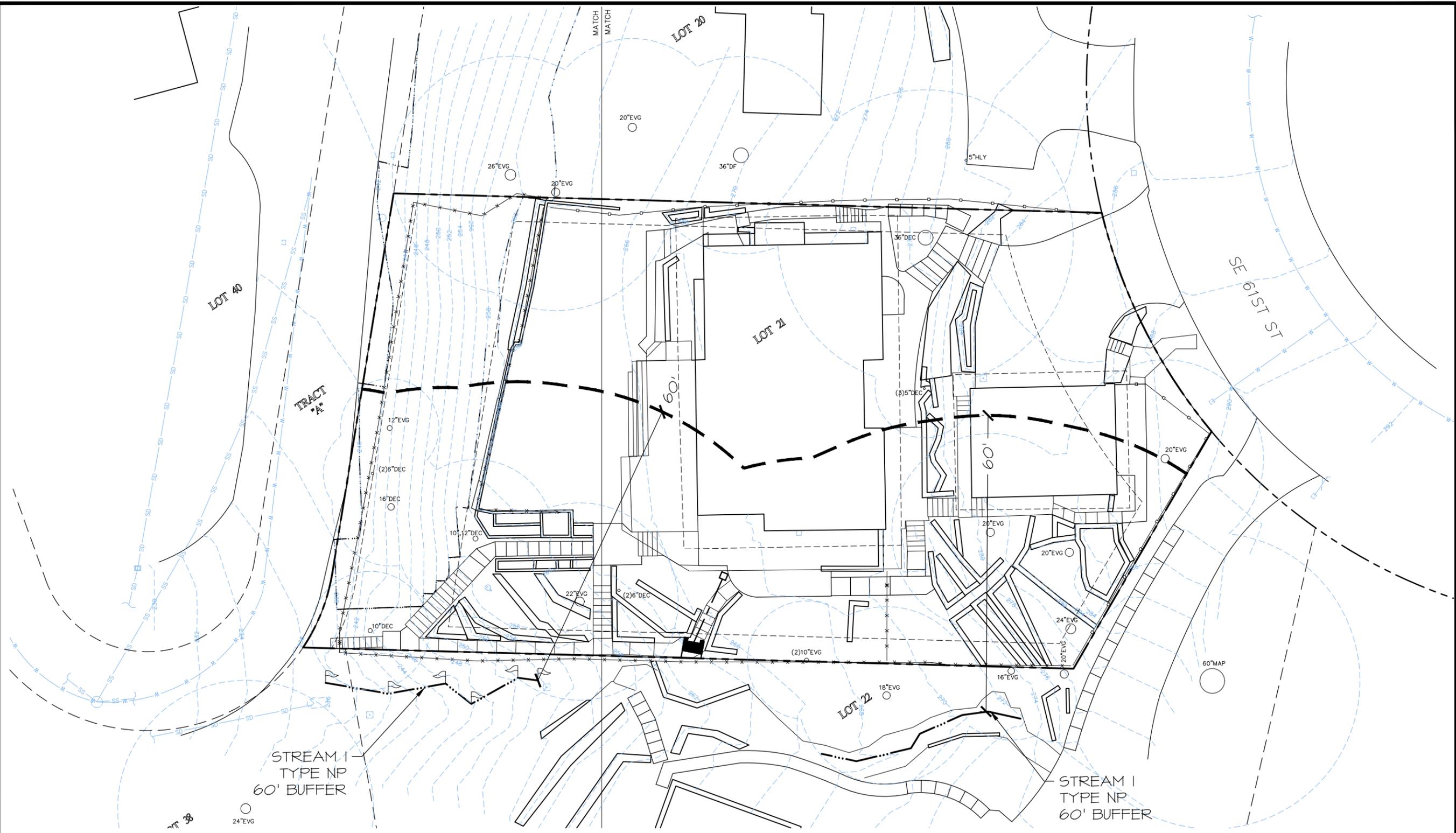


1 inch =  
494.563618833333  
feet



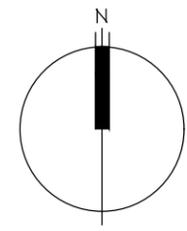
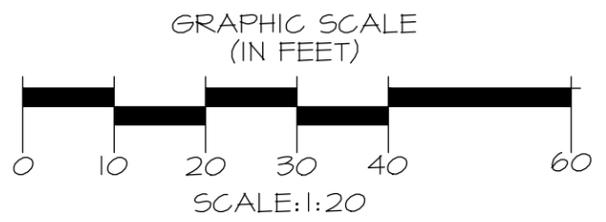
Disclaimer: These maps were developed by the City of Mercer Island and are intended to be a general purpose digital reference tool. These maps are not an accepted legal instrument for describing, establishing, recording or maintaining descriptions for property concerns or boundaries. The City makes no representation or warranty with respect to the accuracy or currency of these data sets, especially in regard to labeling of surveyed dimensions, or agreement with official sources such as records of survey, or mapped locations of features.

### Notes



**PLAN LEGEND**

- PROPERTY LINE
- - - - - OFFSITE STREAM
- 60' STANDARD STREAM BUFFER

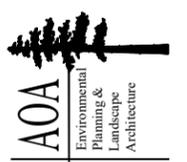


**NOTES**

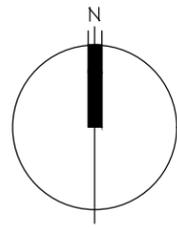
- I. BASE INFORMATION PROVIDED BY ECTYPOS ARCHITECTURE, 4212 W. MERCER WAY, MERCER ISLAND, WA 98040, 206.232.9147.

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SCALE	AS NOTED		
DATE	4-10-24		
REVISED	1/4		

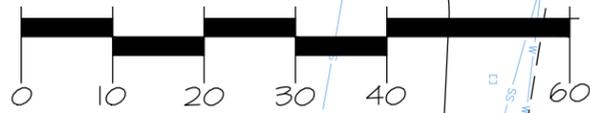
FIGURE 1: EXISTING CONDITIONS  
 NESTLER-SPARE RESIDENCE  
 8265 SE 61ST ST.  
 MERCER ISLAND, WA 98040  
 PARCEL 192280-0210



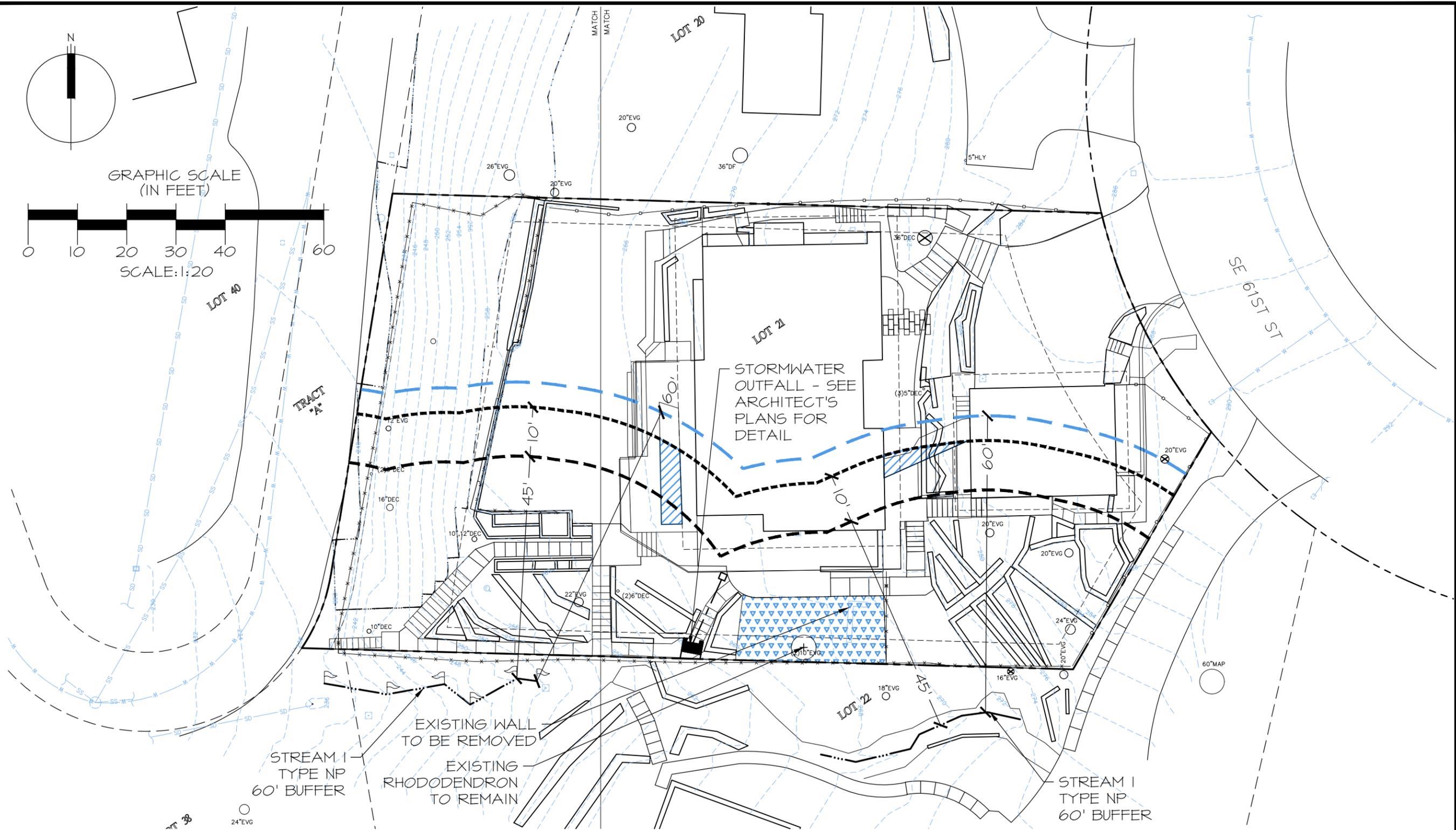
**Almann Oliver Associates, LLC**  
 Environmental Planning & Landscape Architecture  
 PO Box 578 Ceramics, WA 98014  
 Office (425) 333-4338 Fax (425) 333-4399



GRAPHIC SCALE  
(IN FEET)



SCALE: 1:20



### PLAN LEGEND

- PROPERTY LINE
- - - - OFFSITE STREAM
- 60' STANDARD STREAM BUFFER
- - - 45' REDUCED STREAM BUFFER
- - - - 10' BSBL

### IMPACT LEGEND

BUFFER IMPACTS 109 SF

### MITIGATION LEGEND

BUFFER MITIGATION 373 SF

### NOTES

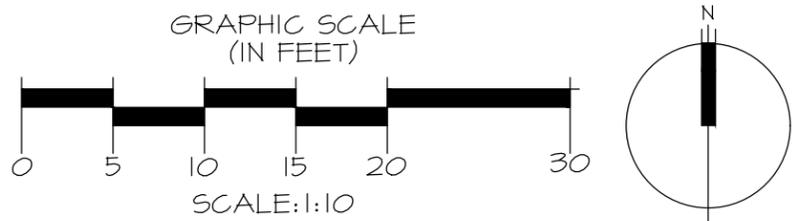
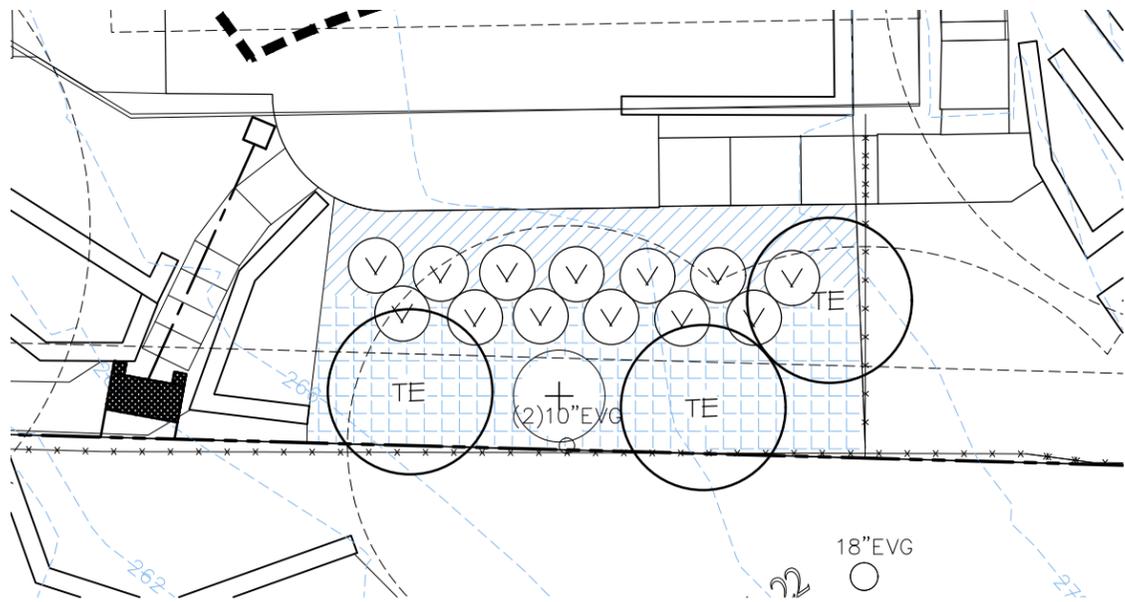
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FIGURE 2: BUFFER IMPACT & MITIGATION PLAN  
 NESTLER-SPARE RESIDENCE  
 8265 SE 61ST ST.  
 MERCER ISLAND, WA 98040  
 PARCEL 192280-0210



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**PLANT SCHEDULE**

**TREES**

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY	SIZE (MIN.)	NOTES
TE	THUJA PLICATA 'EXCELSA'	EXCELSA CEDAR	9' O.C.	3	2 GAL.	FULL & BUSHY

**SHRUBS**

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY	SIZE (MIN.)	NOTES
V	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	3' O.C.	13	1 GAL.	FULL & BUSHY

**GROUND COVER**

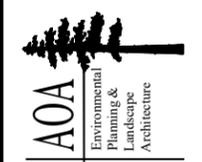
KEY	SCIENTIFIC NAME	COMMON NAME	DENSITY	QTY	SIZE (MIN.)	NOTES
	BLECHNUM SPICANT	DEER FERN	2' O.C.	24	1 GAL.	FULL & BUSHY
	POLYSTICHUM MUNITUM	SWORD FERN	3' O.C.	22	1 GAL.	FULL & BUSHY

**NOTES**

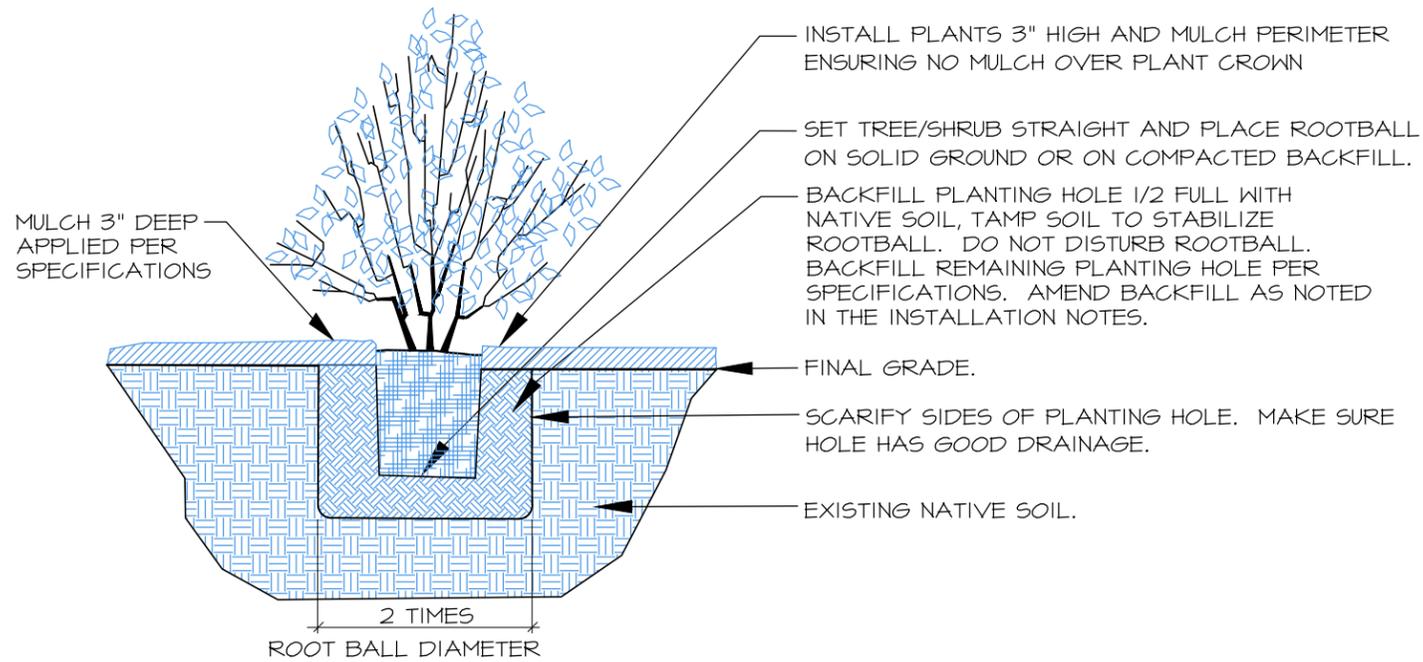
- BASE INFORMATION PROVIDED BY ECTYPOS ARCHITECTURE, 4212 W. MERCER WAY, MERCER ISLAND, WA 98040, 206.232.9147.

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DATE	4-10-24		
REVISED			

FIGURE 3: PLANTING PLAN  
 NESTLER-SPARE RESIDENCE  
 8265 SE 61ST ST.  
 MERCER ISLAND, WA 98040  
 PARCEL 192280-0210

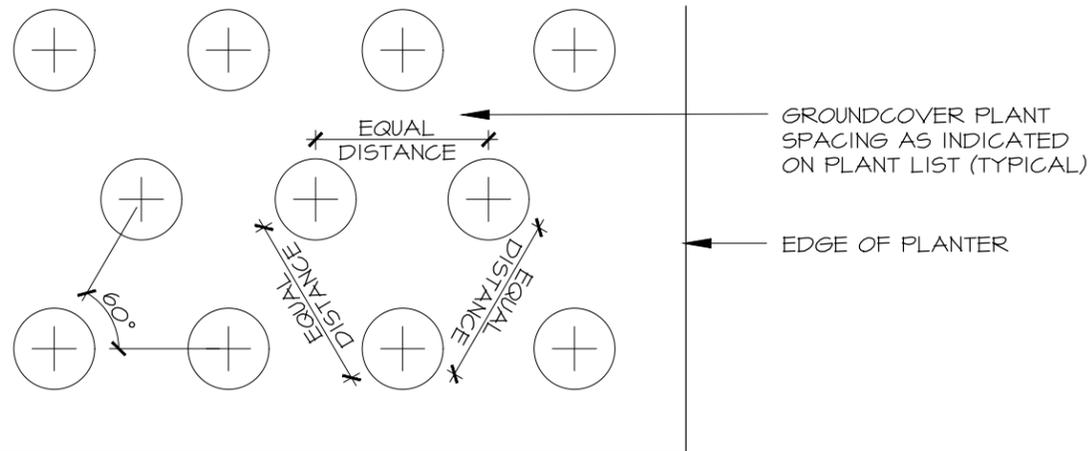
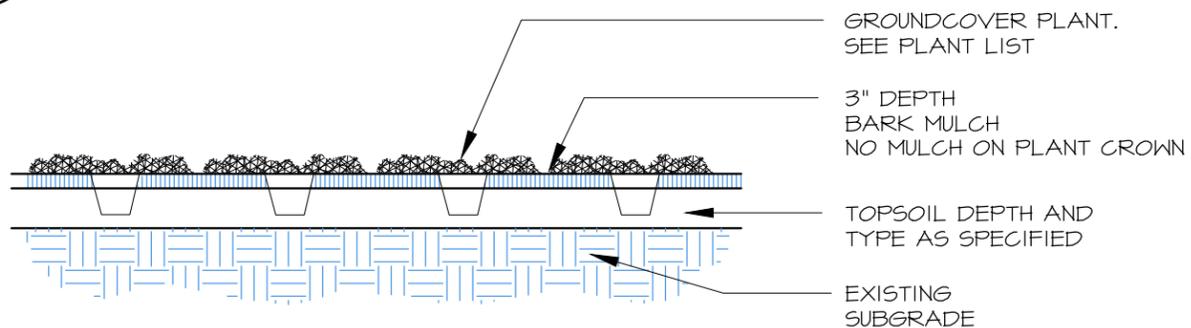


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## 1 CONTAINER TREE/SHRUB PLANTING (TYP.)

SCALE: NTS



## 2 GROUNDCOVER PLANTING (TYP.)

SCALE: NTS

## SPECIFICATIONS

1. PRIOR TO PLANTING, ALL NON-ORGANIC DEBRIS AND NON-NATIVE VEGETATION (BAMBOO AND IVY) SHALL BE REMOVED AND EXPORTED OFF SITE. EXISTING RHODODENDRON SHALL BE PRUNED BACK. IRRIGATION SHALL BE ADJUSTED TO COVER MITIGATION AREA.
2. PRIOR TO PLANTING, ROOT BARRIER SHALL BE INSTALLED ALONG THE WEST AND SOUTH PERIMETER OF THE MITIGATION AREA TO KEEP OUT IVY AND BAMBOO. IT SHALL BE 18" DEEP AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3. IMPORTED CEDAR GROVE 3-WAY TOPSOIL SHALL BE PLACED IN THE RESTORATION AREA TO A DEPTH OF 3" PRIOR TO PLANTING AND MULCHING.
4. ALL PLANTS SHOULD BE INSTALLED BETWEEN DECEMBER 1ST AND MARCH 15TH.
5. ALL PLANTS SHALL BE PIT-PLANTED IN PLANTING PITS EXCAVATED 2X THE DIAMETER OF THE PLANT. PITS SHALL BE BACKFILLED WITH A 30/70 MIX OF STEERCO TO NATIVE SOIL. PLANTS SHALL BE INSTALLED 2" HIGH AND SURFACED MULCHED TO A DEPTH OF 3" WITH WOOD CHIPS PLACED CONTINUOUSLY THROUGHOUT THE PLANTING BED.
6. ALL PLANTS SHALL BE NURSERY GROWN (IN W. WA OR OR.) FOR AT LEAST 1 YEAR FROM PURCHASE DATE, FREE FROM DISEASE OR PESTS, WELL-ROOTED, BUT NOT ROOT-BOUND AND TRUE TO SPECIES.
7. ALL PLANTINGS SHALL BE IRRIGATED AT A RATE OF 1/2" OF FLOW 2-3 TIMES WEEKLY, FROM JUNE 15-OCT 15 THE FIRST YEAR AFTER PLANTING. THE SECOND YEAR, FLOW SHOULD BE REDUCED TO PROVIDE 1/2" OF FLOW 1-2 TIMES WEEKLY FROM JULY 1-SEPT 30. THE SYSTEM CAN BE REMOVED AFTER 2 YEARS.
8. UPON APPROVAL OF PLANTING INSTALLATION BY AOA, MERCER ISLAND WILL BE NOTIFIED TO CONDUCT A SITE REVIEW FOR FINAL APPROVAL OF CONSTRUCTION.
9. MAINTENANCE SHALL BE IMPLEMENTED ON A REGULAR BASIS ACCORDING TO THE SCHEDULE BELOW.

### ANNUAL MAINTENANCE SCHEDULE

MAINTENANCE ITEM	J	F	M	A	M	J	J	A	S	O	N	D
WEED CONTROL												
GENERAL MAINT.												
WATERING - YEAR 1						4	8	8	8	4		
WATERING - YEAR 2							4	4	4			

1-8 = NUMBER OF TIMES TASK SHALL BE PERFORMED PER MONTH.

### MAINTENANCE WILL INCLUDE:

1. REMOVAL OF NON-NATIVE PLANTS, BY HAND, AS LISTED ABOVE.
2. CONTINUED APPLICATION OF IRRIGATION, AS NOTED ABOVE.
3. REMOVAL OF PEST INFESTATIONS, LIKE TENT CATERPILLAR AND SPRUCE APHID.
4. THINNING OF RED ALDER AND MOWING OF TALL GRASSES, AS DIRECTED BY AOA TO ENSURE SURVIVAL OF PLANTED SPECIES.

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FIGURE 4: PLANTING DETAILS & SPECIFICATIONS  
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 PARCEL 192280-0210



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