

4346 E Mercer Way

Valentin Residence

June 18th, 2018

ADDRESS ESA
RECOMMENDATIONS
TO CRITICAL AREAS
REPORT
May 15, 2018

File No. CAO17-003 – Valentin Critical Areas
Determination

4346 E Mercer Way, Mercer Island, WA 98040

King County Tax Parcel # 004610-0150

SUMMARY OF MAJOR MODIFICATIONS

THIS REVISION:

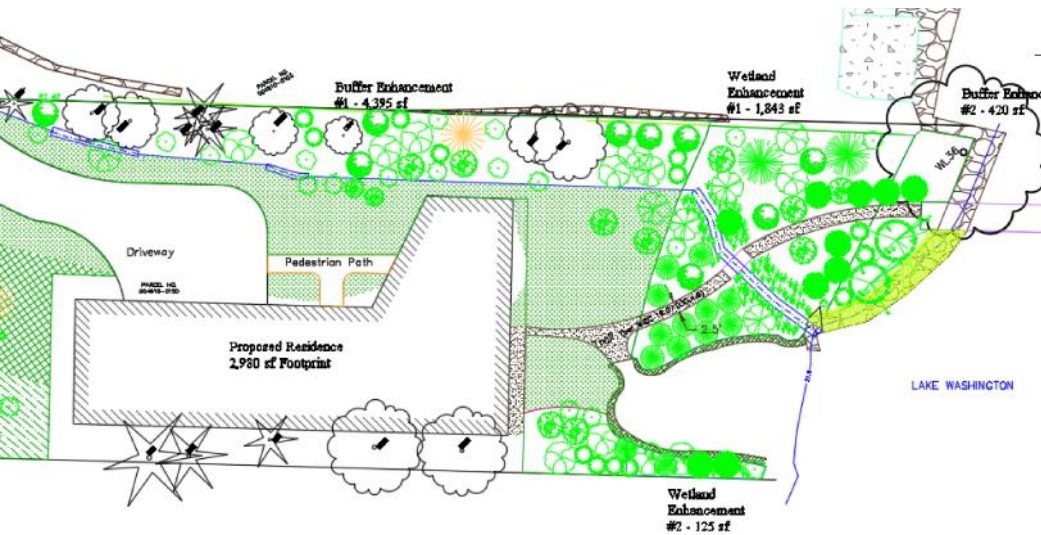
- REVISED SITE DESIGN TO MOVE DRIVEWAY AND PARKING AREA COMPLETELY OUTSIDE REDUCED BUFFER
- RELOCATED WALKWAY OUTSIDE OF REDUCED BUFFER
- REVISED DESIGN TO ALLOW ACCESS AROUND PERIMETER OF RESIDENCE

PRIOR REVISIONS:

- REVISED FROM TYPE 2 TO TYPE 1 CLASSIFICATION OF LOWER WATERCOURSE
- MODIFIED PLANS TO NOT PIPE OR RE-ROUTE WATERCOURSE

ESA Recommendation #1: The footprint of the proposed house extends to the edge of the reduced buffer. This does not allow adequate room for construction and maintenance of the proposed house without disturbing the buffer. Please add an adequate setback (not less than 5 feet in width) from the buffer for construction, and ongoing access and maintenance.

OLD



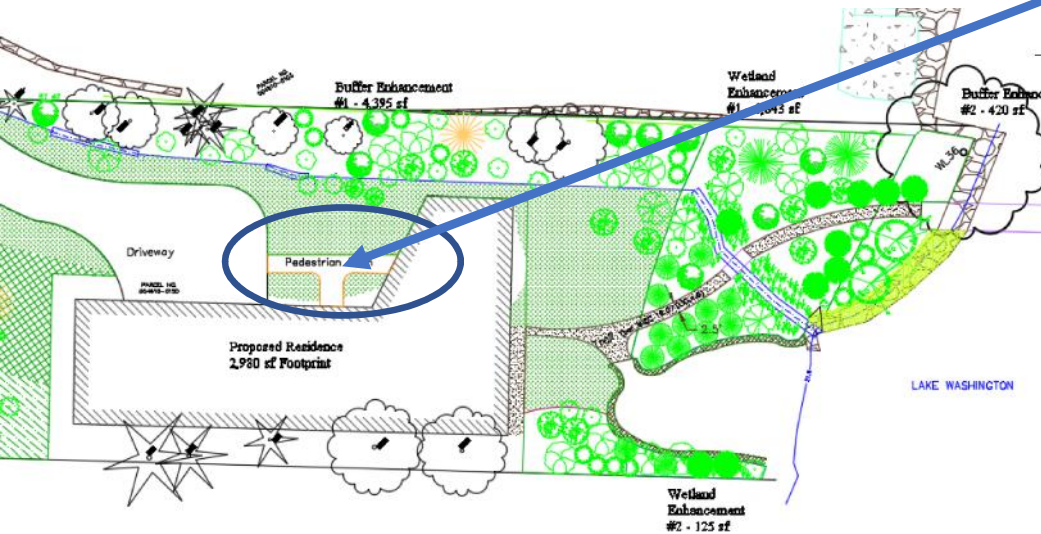
REVISED

Although not required by code we have created a 3-5 ft path around the entire residence by revising and reducing the footprint. In most areas the path is outside the buffer. In limited areas the path is inside the buffer as an allowed alteration per MICC 19.07.030.A.6.



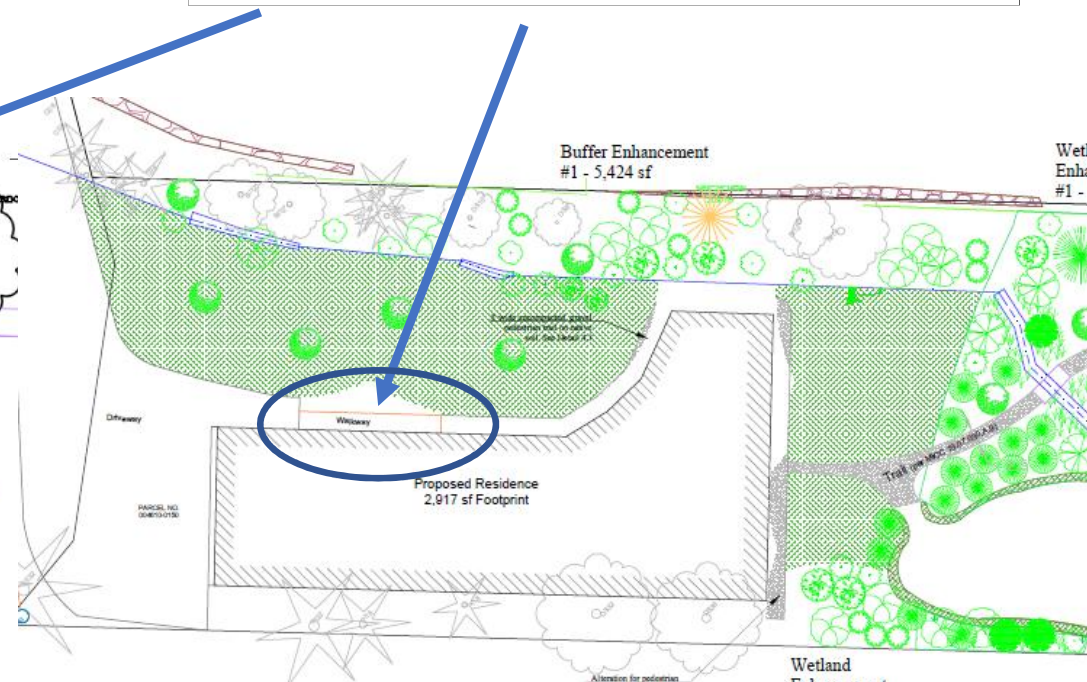
ESA Recommendation #2: On the plans, the walkway from the elongated parking area leading to the proposed house is labeled as a trail. This area is a walkway, not a trail. Please relabel as walkway. Walkways are not allowed in buffers, so the walkway must be removed from the reduced buffer area.

OLD



REVISED

Walkway completely removed from within the reduced buffer.

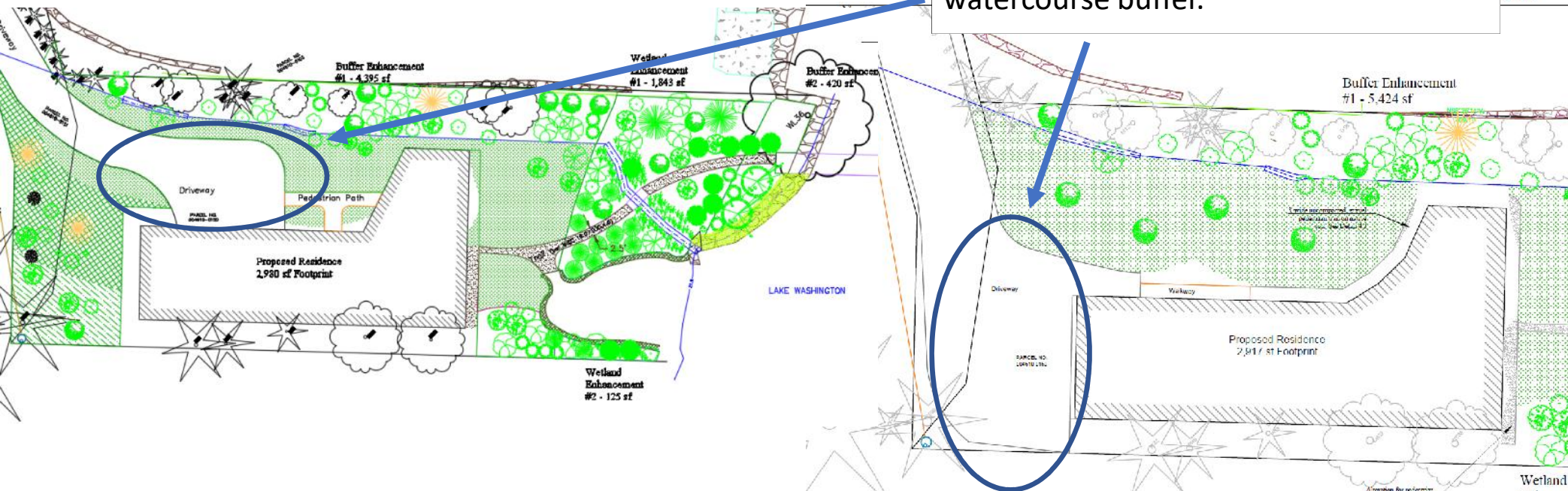


ESA Recommendation #3: To mitigate for reduced watercourse buffer widths, the project proposes to employ option (iii) under MICC 19.07.070(B)(2): removal of invasive species and ornamentals, replanting with native trees, shrubs, and herbaceous plants, and five-year monitoring. In addition, this mitigation type is proposed throughout Wetland A and most of the buffer areas. The enhancement activities are generally appropriate mitigation for the proposed reduced buffers. However, much of the Type 2 watercourse buffer is comprised of driveway pavement and parking area; a driveway crossing is allowable per MICC 19.07.030(A)(6); however, additional mitigation must be provided to offset the new intrusion of driveway in the buffer.

OLD

REVISED

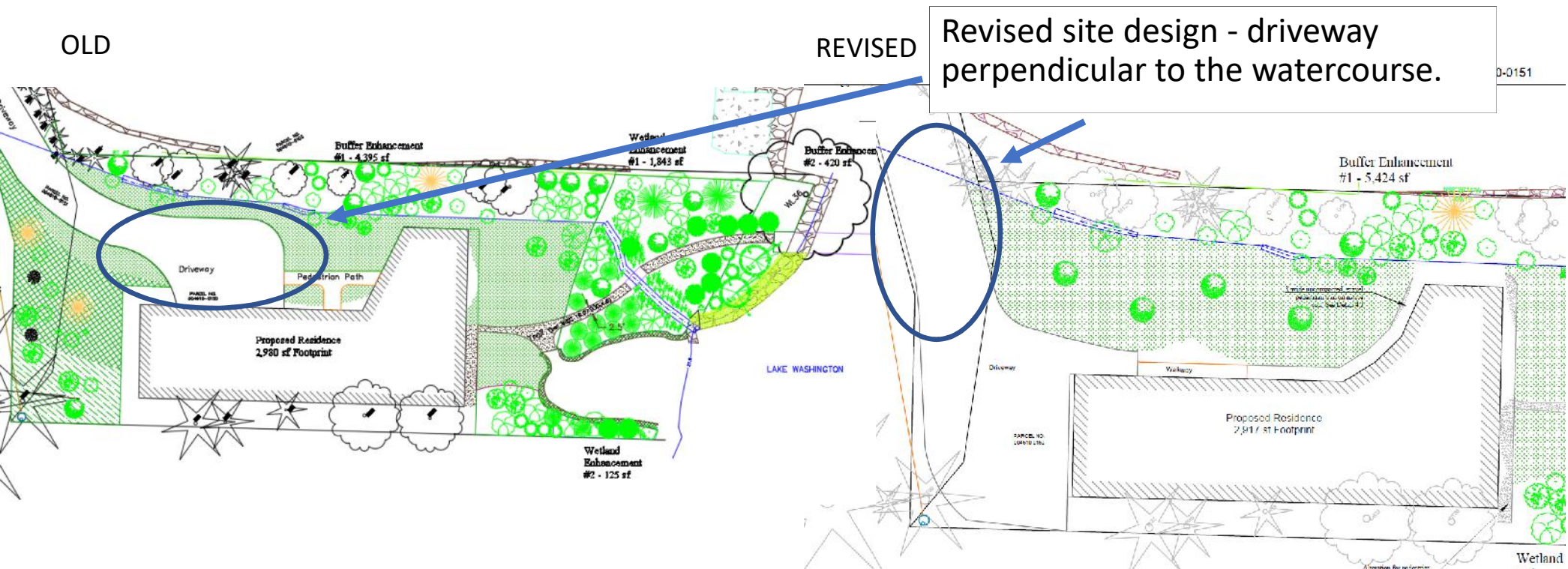
Driveway and parking area completely removed from the reduced Type 2 watercourse buffer.



0-0151

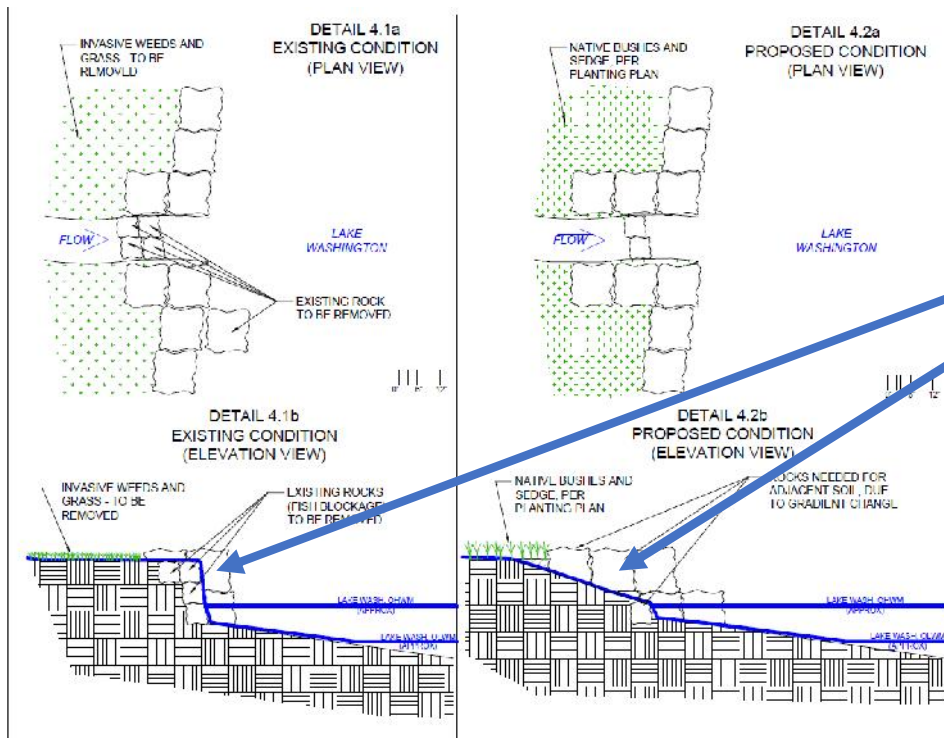
Wetland

ESA Recommendation #4: A portion of the proposed driveway including the parking area at the terminus of the driveway is parallel with the water course within the buffer and is located within the reduced watercourse buffer. While driveways are allowed in buffers pursuant to MICC 19.07.030(A)(9), the layout is not consistent with best available science and does not avoid impacts to the reduced watercourse buffer. Best available science allows driveways to be placed in buffers perpendicular to critical areas to pass through or cross over the critical area. Please realign the driveway to be perpendicular to the watercourse to ensure no net loss of watercourse and buffer functions; a revised site design is appropriate.



ESA Recommendation #5: The Critical Areas Study proposes mitigation via habitat enhancement within the watercourse with log placement. The stream is too narrow to benefit from log placement. Rather than log placement, please remove or soften the existing rock bulkhead adjacent to the watercourse outlet to the lake. As part of this work, remove all blockages between the lake and the outlet.

OLD

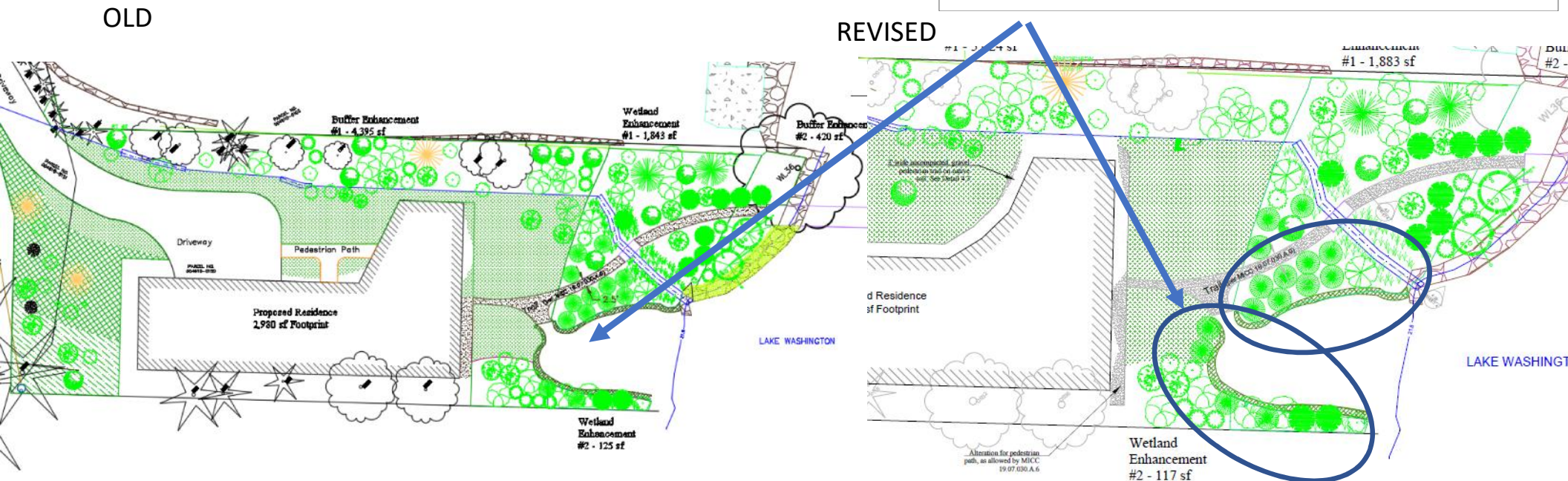


REVISED

Soften existing rock outlet and remove blockage, see proposed design detail to the left.

ESA Recommendation #6: Pursuant to MICC 19.07.110(E)(9)(d)(i), native vegetation should be planted to meet or exceed 75 percent cover in the area within 20 feet of the Lake Washington OHWM. However, a sandy cove exists within this 20-foot area. To meet the intent of the code, please enhance the proposed plantings adjacent to the cove by adding native shrubs that will provide habitat value not provided by the proposed groundcover plantings in this area.

Added plantings adjacent to cove which are all native shrubs. In addition, the cove itself provides enhanced habitat.



ESA Recommendation #7: The plantings required by MICC 19.07.110(E)(9)(d)(i) shown on the revised plan set appear to be counted in the total buffer mitigation area. Please account for these plantings separately from mitigation plantings.

Broke out SMP mitigation area separately in calculations below.

OLD

Proposed Impacts and Mitigation

Proposed Residence	2,980 sf
Buffer Alteration	1,298 sf
Wetland Enhancement Areas	
Wetland Enhancement Area #1	1,843 sf
Wetland Enhancement Area #2	125 sf
<u>Total Wetland Enhancement</u>	<u>1,968 sf</u>
Mitigation Planting for Reduced Buffer	1,900 sf
Buffer Enhancement #1	4,395 sf
Buffer Enhancement #2	421 sf
<u>Total Buffer Enhancement</u>	<u>4,816 sf</u>
Total Mitigation	8,684 sf
Ratio of Mit Planting for Reduced Buffer to Alteration	1.46:1

REVISED

Proposed Impacts and Mitigation

Proposed Residence Footprint	2,917 sf
Buffer Alteration	223 sf
Wetland Enhancement Areas	
Wetland Enhancement Area #1	1,883 sf
Wetland Enhancement Area #2	117 sf
<u>Total Wetland Enhancement</u>	<u>2,000 sf</u>
Mitigation Enhancement 0-20' from OHWM (SMP Area)	1,523 sf
Buffer Enhancement #1	5,424 sf
Buffer Enhancement #2	410 sf
<u>Total Buffer Enhancement</u>	<u>5,834 sf</u>
Total Mitigation:	
With SMP Mitigation Area	7,357 sf
Without SMP Mitigation Area	6,316 sf
Ratio of Mit Enhancement for Reduced Buffer to Alteration	35:1 to 28:1

Key

- Proposed Residence: Diagonal hatching (top-left to bottom-right)
- Wetlands Enhancement: Green field with small plant symbols
- Buffer Enhancement: Green diagonal hatching (top-left to bottom-right)
- Existing Path: Rectangular grid pattern
- Buffer Alteration: Diagonal hatching (bottom-left to top-right)
- Standard Type: Dashed blue line
- Reduced Type: Dashed purple line

ESA Recommendation #8: The “buffer enhancement and mitigation” area shown on the Impacts and Buffer Mitigation sheet includes non-buffer area (southwest corner of parcel). There are no issues with enhancing this area; however, it should not be included in the total buffer enhancement area calculation.

Removed non-buffer area calculations.

OLD

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REVISED

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Wetland Enhancement Area #2	117 sf
<u>Total Wetland Enhancement</u>	<u>2,000 sf</u>
Mitigation Enhancement 0-20' from OHWM (SMP Area)	1,528 sf
Buffer Enhancement #1	5,424 sf
Buffer Enhancement #2	420 sf
<u>Total Buffer Enhancement</u>	<u>5,844 sf</u>
Total Mitigation:	
With SMP Mitigation Area	7,844 sf
Without SMP Mitigation Area	6,316 sf
Ratio of Mit Enhancement for Reduced Buffer to Alteration	35:1 to 28:1

Key

Proposed Residence (diagonal hatching)

Wetlands Enhancement (green with stars)

Buffer Enhancement (green diagonal hatching)

Existing Paths (brick pattern)

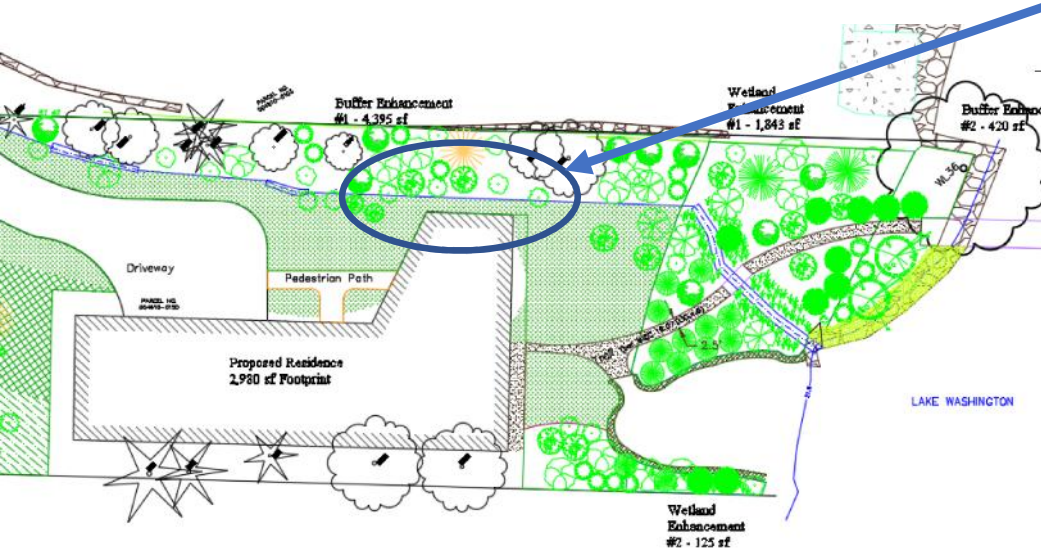
Buffer Alteration (diagonal hatching)

Standard Type (dashed blue line)

Reduced Type (dashed purple line)

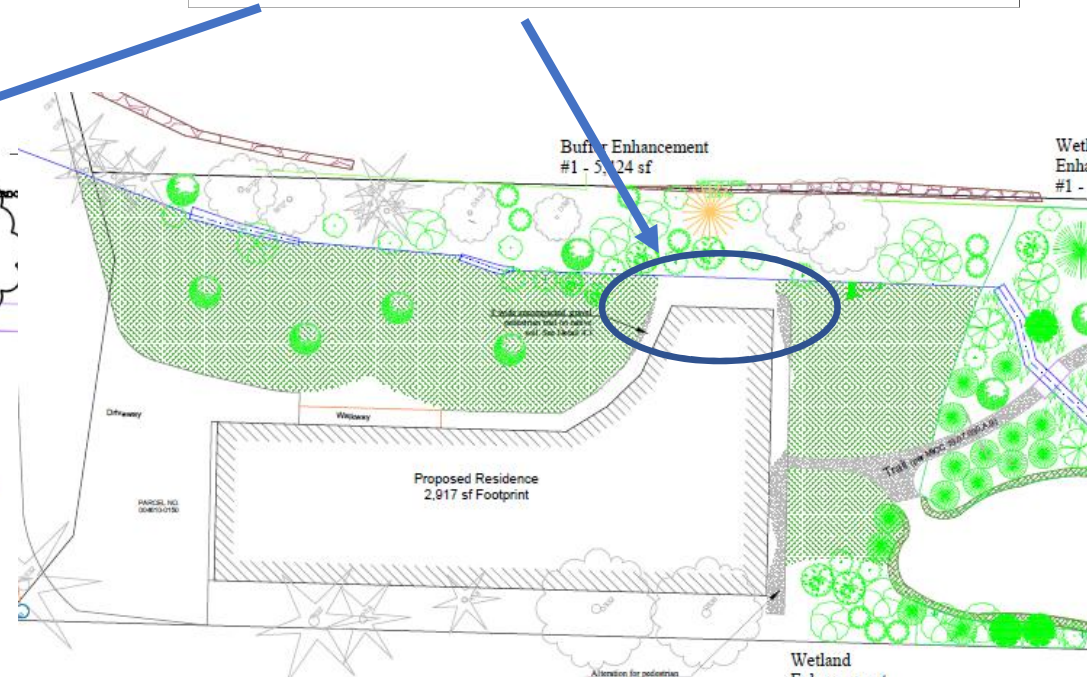
ESA Recommendation #9: The three-foot proposed reduced buffer from the piped watercourse does not allow for future daylighting of the stream and therefore results in net loss of watercourse and buffer functions. Please proposed a larger buffer that will result in no net loss; please increase the buffer width and provide documentation indicating that the revised width will allow for future daylighting of the watercourse.

OLD

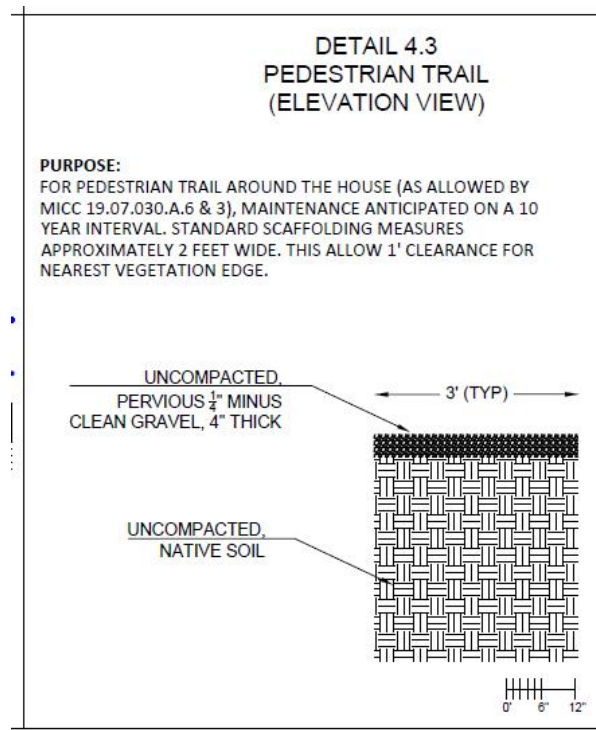


REVISED

As discussed with the City, increased setback to 5 feet to allow for future daylighting (not proposed or part of this project).



ESA Recommendation #10: (Previous Review Comment) Detailed plans should be provided for the proposed trail and bridge to document materials, construction methods, and mitigation to ensure consistency with MICC Chapter 19.07 allowances, and to adequately compensate for wetland, stream, and buffer impacts. The updated Critical Areas Study and Mitigation Plan sheets do not discuss the proposed trail and bridge that provide access to the dock or detail the construction methods or proposed materials. Per MICC 19.07.030(A)(9), trails should be made of pervious materials, unless the code official determines impervious materials are necessary to ensure user safety. Please provide this information.



REVISED

Details have been added to the mitigation plan. This is our fault, it was an oversight in the previous submission.

Prior review included for reference

4346 E Mercer Way

Valentin Residence

April 12th, 2018

MAJOR ADDITION
TO CRITICAL
AREAS REPORT

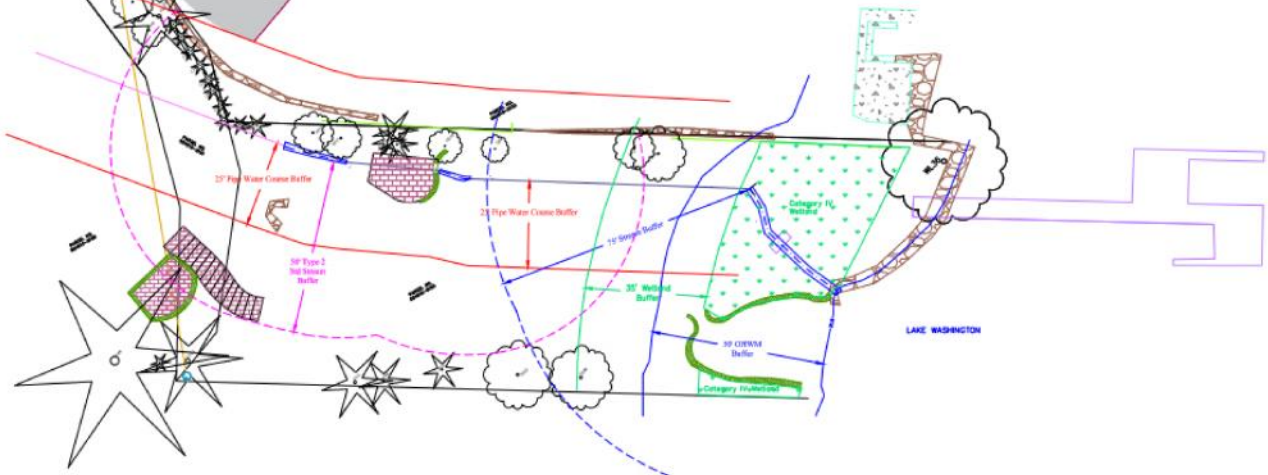
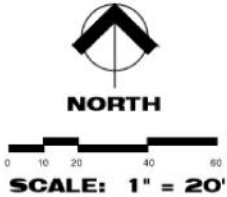
To finish the Critical Areas Report, Jones and Associates addressed each adopted criterion for approval in MICC 19.07.070.B.2.a and 19.07.080.C.2

ESA Recommendations

1. Type 1 watercourse classification
2. Reduce proposed development envelope
3. Buffers for Type 2 open watercourse sections and piped watercourse
4. Update Mitigation Plan to include open Type 2 watercourse sections
5. Not place daylighted watercourse into culvert or to relocate
6. Show all trees proposed for removal and detailed tree replacement proposal
7. Remove references to offsite watercourse features and building setback
8. Provided a survey with the wetland boundary on the southeast corner

ESA Recommendation	Revised Study
1 Utilize a Type 1 watercourse classification for lower portion of watercourse that empties into Lake Washington.	Revised study uses a Type 1 classification for the lower portion of the watercourse. This includes standard buffers, buffer reduction and associated buffer enhancement proposals. Standard buffer of 75 feet is proposed to be reduced to 37 feet. Revised plan addresses the approval criteria as well as detailed buffer enhancements including a no net loss analysis.
2 Revise proposed development envelope	Revised study proposes buffers for the open section of the Type 2 watercourse, and a 40% smaller development envelope.
3 Add buffers for Type 2 open sections and piped watercourse	Revised study and maps have added standard buffers as well as reduced buffers for both Type 2 open and piped watercourse sections. Revised study increases buffer enhancement area from 1,056 square feet to 4,816 square feet; a four-fold increase.
4 Update Mitigation Plan to include open Type 2 sections	Revised study includes an updated buffer enhancement and mitigation plan for the open Type 2 sections. The updated buffer enhancement is for a total of 4,816 square feet (up from 1,056 square feet, a four-fold increase). Mitigation planting is proposed at a 1.46:1 ratio for a total of 1,900 square feet to compensate for buffer alterations. Additional mitigation implementation is being proposed to include removal of on-site permanent coal fired brick/stone/steel BBQ within the buffer, removal of patio within the buffer and implementation of woody debris and logs along the watercourse.
5 To not place daylighted watercourse into culvert or to relocate any of the onsite watercourse segments	All references and proposals to place daylighted watercourse back into culvert has been removed. All proposals to relocate any of the watercourse segments have been removed. This has resulted in a 40% smaller development envelope.
6 Show all trees proposed for removal and detailed tree replacement proposal	As a result of the revised project plans, no trees within the Critical Areas will be affected by the proposed project.
7 Remove references to offsite watercourse features as well as 15-ft building setback	All references to off-site watercourse features and building setbacks have been removed from the study.
8 Provide a survey with the wetland boundary on the southeast corner of the property	Revised study includes an updated survey with the wetland boundary on the southeast corner of the property. Wetland enhancement is proposed for a total of 1,968 square feet.













Existing Condition

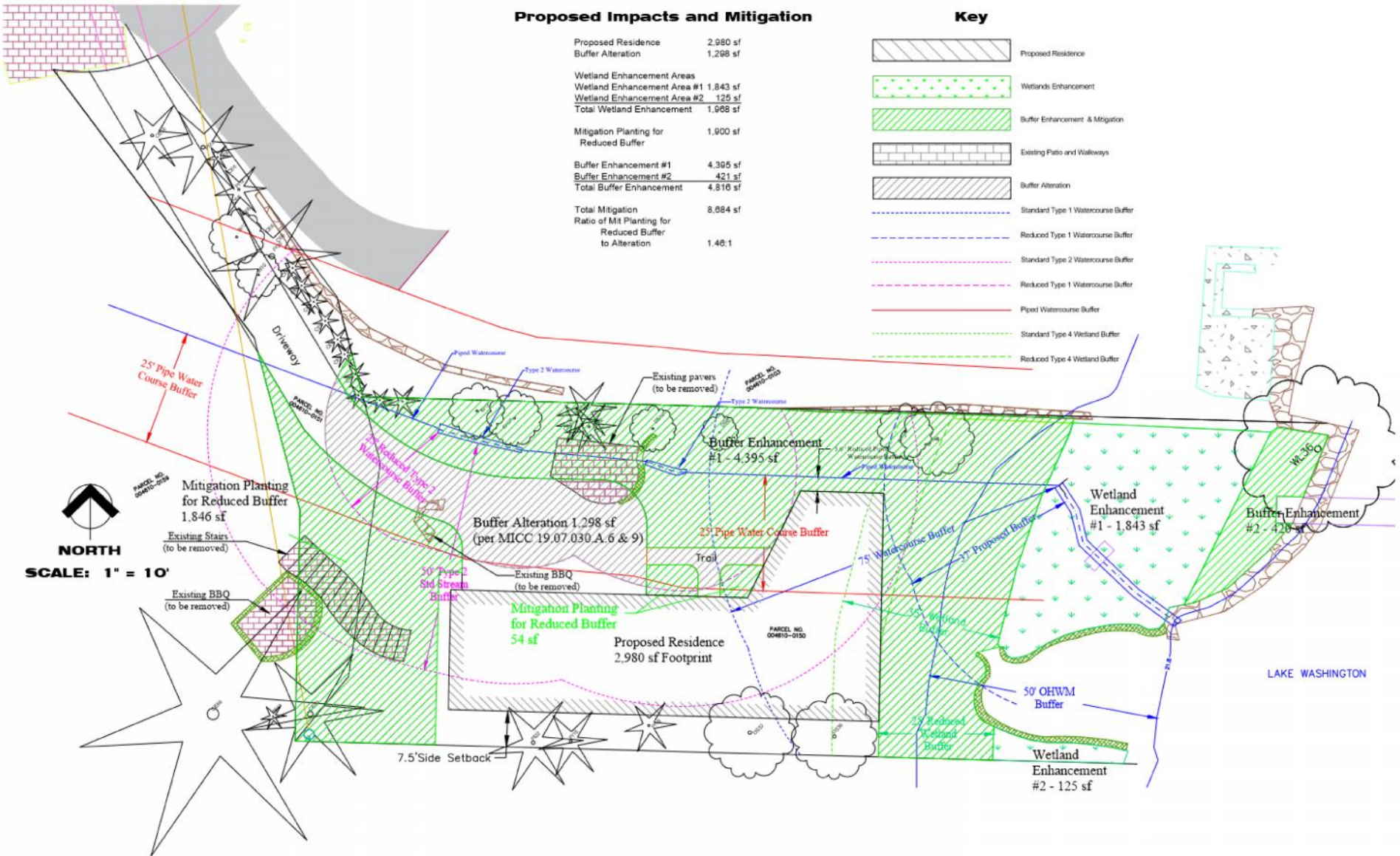


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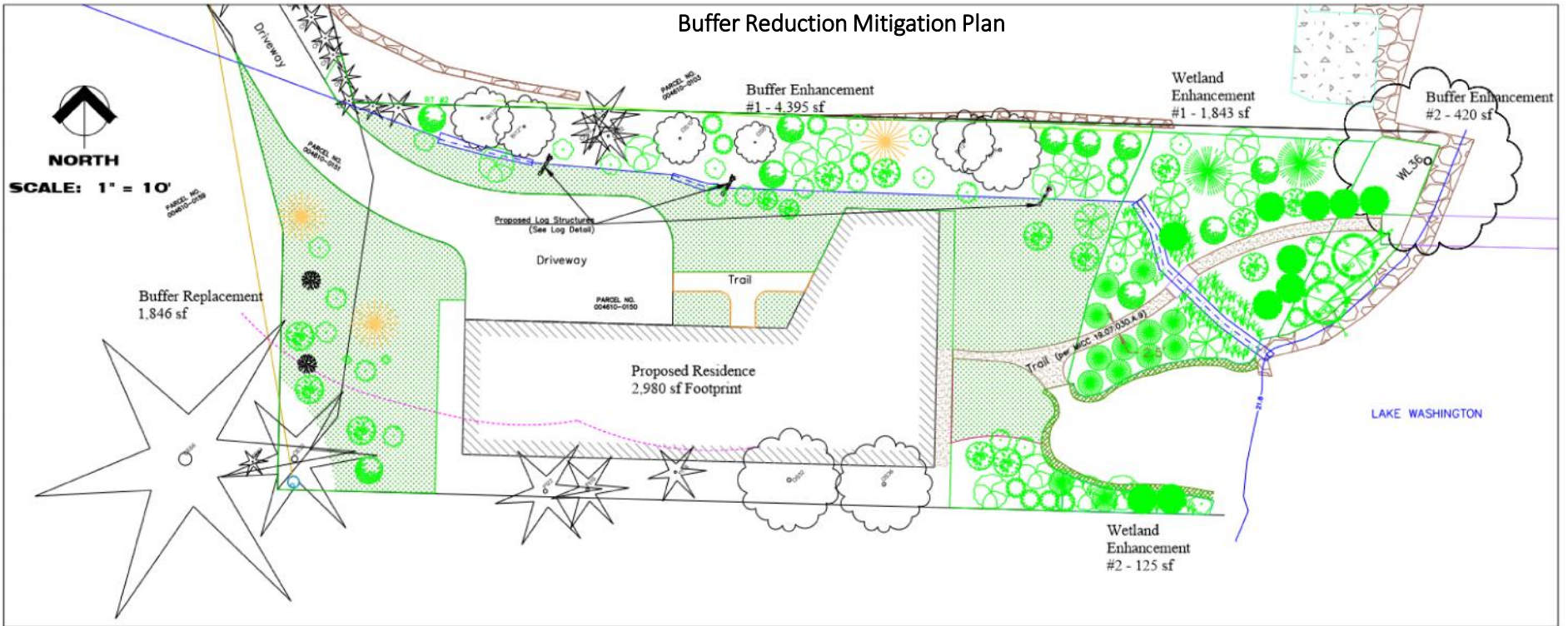
Key

-  Proposed Residence
-  Wetlands Enhancement
-  Buffer Enhancement & Mitigation
-  Existing Patio and Walkways
-  Buffer Alteration
-  Standard Type 1 Watercourse Buffer
-  Reduced Type 1 Watercourse Buffer
-  Standard Type 2 Watercourse Buffer
-  Reduced Type 1 Watercourse Buffer
-  Piped Watercourse Buffer
-  Standard Type 4 Wetland Buffer
-  Reduced Type 4 Wetland Buffer



NORTH
SCALE: 1" = 10'

Buffer Reduction Mitigation Plan



CLEARING AND GRADING STANDARD NOTES

1. A COPY OF THE APPROVED PLANS MUST BE ON-SITE DURING CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRED OR RELATED PERMITS PRIOR TO BEGINNING CONSTRUCTION.
2. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS AND TO AVOID UTILITIES WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.
3. A REINFORCED EROSION CONTROL FENCE MUST BE INSTALLED IN ACCORDANCE WITH THE TRESP PLAN.
4. TO REDUCE THE POTENTIAL FOR EROSION OF EXPOSED SOILS, BEST MANAGEMENT PRACTICES (BMPs) MUST BE FOLLOWED ACCORDING TO THE TRESP PLAN.

CONSTRUCTION SEQUENCE:

1. HOLD THE PRE-CONSTRUCTION MEETING
2. STAKE CLEARING LIMITS
3. INSTALL PERIMETER EROSION CONTROL FENCING
4. GRADE AND INSTALL CONSTRUCTION ENTRANCES
5. REMOVE EXISTING PLANT MATERIALS
6. INSTALL INFILTRATION
7. RECONSTRUCT BREAM CHANNELS
8. INSTALL ROCK BRUSH FOOT
9. INSTALL PLANT MATERIALS
10. MULCH PLANT MATERIALS
11. INSTALL TEMPORARY IRRIGATION SYSTEM
12. STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS
13. UPON COMPLETION OF THE PROJECT, REMOVE BMPs AS APPROPRIATE

TREE AND SHRUB PLANTING AND STAKING DETAIL



LOG DETAIL



Note: 3 Logs, 6-8 foot long
Min 12 inch diameter
placed according to plan

PLANT SCHEDULE

NO.	SYMBOL	PLANT NAME	QTY	DATE	DATE	DATE	DATE	DATE	DATE
1		REDWOOD	100						
2		DOUGLASS FIR	100						
3		WESTERN RED CEDAR	100						
4		PORTLAND CEDAR	100						
5		WESTERN WHITE PINE	100						
6		WESTERN LARCH	100						
7		WESTERN DOUGLASS FIR	100						
8		WESTERN RED CEDAR	100						
9		WESTERN WHITE PINE	100						
10		WESTERN LARCH	100						
11		WESTERN DOUGLASS FIR	100						
12		WESTERN RED CEDAR	100						
13		WESTERN WHITE PINE	100						
14		WESTERN LARCH	100						
15		WESTERN DOUGLASS FIR	100						
16		WESTERN RED CEDAR	100						
17		WESTERN WHITE PINE	100						
18		WESTERN LARCH	100						
19		WESTERN DOUGLASS FIR	100						
20		WESTERN RED CEDAR	100						
21		WESTERN WHITE PINE	100						
22		WESTERN LARCH	100						
23		WESTERN DOUGLASS FIR	100						
24		WESTERN RED CEDAR	100						
25		WESTERN WHITE PINE	100						
26		WESTERN LARCH	100						
27		WESTERN DOUGLASS FIR	100						
28		WESTERN RED CEDAR	100						
29		WESTERN WHITE PINE	100						
30		WESTERN LARCH	100						

Anticipated Next Steps

1. ESA to review the resubmittal stream typing, wetland typing, and no net loss;
2. City of Mercer Island to review that all other criterion for approval are met;
3. City of Mercer Island to issue a Notice of Decision.