City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	Weber Residence
Proposal Address:	15 Crescent Key
Proposal Description:	Application for a Critical Areas Land Use Permit to modify the 25-foot shoreline structure setback for construction of a new covered patio and landscaping improvements associated with a demo and rebuild of an existing house. Disturbance in the shoreline buffer is proposed with the removal of a walkway and existing impervious surface and installation of a boardwalk and vegetation along the existing shoreline bulkhead.
File Number:	16-124087-LO
Applicant:	Daniel Bucher, MacPherson Construction
Decisions Included	Critical Areas Land Use Permit (Process II. 20.30P)
Planner:	Reilly Pittman, Land Use Planner
State Environmental Policy Act Threshold Determination:	**Exempt Per WAC 197-11-800(1)**
Director's Decision:	**Approval with Conditions** Michael A. Brennan, Director Development Services Department By: _____ Carol V. Helland, Land Use Director

Application Date:	February 8, 2016
Notice of Application Date:	April 7, 2018
Decision Publication Date:	May 26, 2016
Project Appeal Deadline:	June 9, 2016

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.

CONTENTS

Attachments

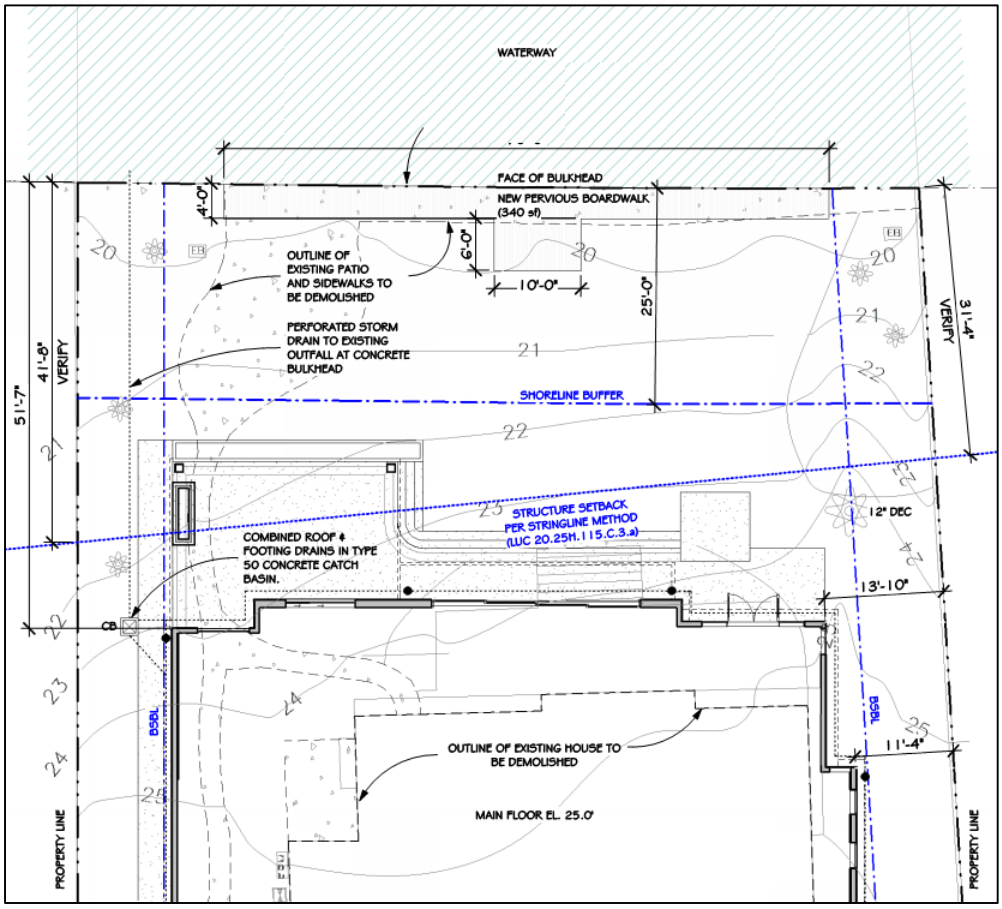
1. Site Plan – Enclosed
2. Critical Areas Report, Mitigation, and Monitoring plan dated February 3, 2016 – Enclosed
3. Property Survey – In File
4. Application Forms and Materials – In File

I. Proposal Description

The applicant proposes to demolish and reconstruct a single-family residence on the subject site. The proposed residence will comply with the required shoreline structure setback. The project proposes to remove and replace impervious surfaces and landscaping features improvements primarily within the 25-foot shoreline structure setback but also includes some removal and replacement of a walkway and patio in the 25-foot shoreline buffer and replacement of walls and landscaping features. All work is within a maintained yard with no native vegetation or significant trees proposed for removal within the structure setback or buffer. A critical areas land use permit is required to allow the modification of the shoreline structure setback and disturbance within the shoreline buffer. The proposed impacts are as follows:

- 723 square feet of impervious surface currently exists within the shoreline buffer and will be removed. A new 340 square foot boardwalk is proposed along the bulkhead to assist boat access. Temporary disturbance of the buffer will be caused by grading work to remove the impervious walkway and replace an existing drainage line that empties to the lake. The area will be restored to the existing lawn and landscaped condition.
- 314 square feet of a covered patio and impervious surfaces are proposed within the 25-foot shoreline structure setback. The new residence is located outside of the setback. **See Figure 1 below for project site plan and Attachment 2 for Critical Areas Report**

Figure 1



II. Site Description, Zoning, Land Use and Critical Areas

A. Site Description

The project site is located at 15 Crescent Key in the Factoria subarea of the City. This single-family residential neighborhood is characterized by the canals that lead to Lake Washington. Other developed single-family zoned property is adjacent to the site. Street frontage is on Crescent Key to the southwest and a lake canal is to the northeast.

Figure 2

B. Zoning

The property and surrounding properties are zoned R-2.5, single-family residential. The proposed development is allowed in this zone. The property is within the Shoreline and Critical Areas Overlay Districts.

C. Land Use Context

The property has a Comprehensive Plan Land Use Designation of SF-M (Single-Family Medium Density). The area was developed starting in the 1950s and is built on fill placed in Lake Washington to create the canal environment. The surrounding properties are all single-family residential uses and improvements typically associated with houses.

D. Critical Areas On-Site and Regulations

i. Shorelines

Shorelines provide a variety of functions including shade, temperature control, water purification, woody debris recruitment, channel, bank and beach erosion, sediment delivery, and terrestrial-based food supply (Gregory et al. 1991; Naiman et al. 1993; Spence et al.1996).

Shorelines provide a wide variety of functions related to aquatic and riparian habitat, flood control and water quality, economic resources, and recreation, among others. Each function is a product of physical, chemical, and biological processes at work within the overall landscape. In lakes, these processes take place within an integrated system (ecosystem) of coupled aquatic and riparian habitats (Schindler and Scheuerell 2002). Hence, it is important to have an ecosystem approach which incorporates an understanding of shoreline functions and values.

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The proposal generally meets the R-2.5 zoning dimensional requirements found in LUC 20.20.010. Total proposed impervious coverage on the site is stated to be 49 percent and structural lot coverage at 34 percent. Impervious and lot coverage may be required to be verified by survey as part of the building permit inspection process.

B. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer or structure setback from a critical area or buffer. The site is also located within the Shoreline Overlay District and is also subject to the requirements in LUC 20.25E. The performance standards below are applicable:

i. Consistent with LUC 20.25E.080.B

General Regulations Applicable to All Land Use Districts and Activities

The project is consistent with all general performance standards, where applicable. No work in the lake or any other critical area is proposed. No significant vegetation in the shoreline buffer is being removed. All structures proposed comply with the 35-foot height limit. All work is consistent with the City's policies, codes, and standards.

ii. Consistency With LUC 20.25E.080.Q

Residential Development Regulations. For purposes of this section, accessory structures shall include swimming pools, tennis courts, spas, greenhouses and similar facilities.

1. No boat, houseboat or watercraft moored seaward of the ordinary high water mark shall be used as a permanent residence.

No proposal to use a boat or the structure as a residence is included in this proposal.

2. **All structures, accessory buildings and ancillary facilities, other than those related to water use (such as moorage) shall be located outside of the shoreline critical area and shoreline critical area buffer, except stairs, handrails, and a trail or path providing access to the shoreline. The requirements of this subsection may be modified through a critical areas report, LUC 20.25H.230.**
   The existing walkways in the shoreline buffer are proposed to be removed and replaced with boardwalk walkway. Overall impervious surface coverage in the buffer will be reduced. The proposed walkway maintains access along the bulkhead to a boat.

3. **Fences essentially parallel with the shoreline are not permitted within critical area buffer or critical area structure setback.**
   No parallel fences are proposed as part of this approval.

4. **Maximum building height in those areas of the Shoreline Overlay District which are zoned for residential uses shall be 35 feet, except in land use districts where more restrictive height limitations exist.**
   Proposed structures comply with the 35 foot height limit on residential uses in the shoreline jurisdiction.

5. **All residential development shall be accompanied by a plan indicating methods for preserving shoreline vegetation and control of erosion during and following construction as required by City of Bellevue clearing and grading regulations, Chapter 23.76 BCC, and the Comprehensive Plan.**
   The only existing vegetation adjacent to the shoreline of this property is lawn currently. Ornamental and lawn vegetation is proposed to be removed within the buffer in the area of the proposed mitigation planting. A significant deciduous tree was removed within the last five years after if fell down in a storm, which was located within the shoreline buffer. Replacement of the tree shall be provided at a ratio of 2:1 and provided within the buffer as part of the mitigation planting. **See Conditions of Approval in Section IX of this report.**

iii. Consistency with LUC 20.25H.230

Critical Areas Report – Purpose. Generally, the critical areas report must demonstrate that the proposal with the requested modifications leads to equivalent or better protection of critical area functions and values than would result from the application of the standard requirements. Where the proposal involves restoration of degraded conditions in exchange for a reduction in regulated critical area buffer on a site, the critical areas report must demonstrate a net increase in certain critical area functions.

The proposal is to reduce the 25-foot shoreline structure setback from placement of a covered patio and cause disturbance within the shoreline buffer resulting from removal of impervious surfaces, grading, and replacement with a wooden boardwalk and drainage line. The existing condition of the shoreline buffer and setback is an

ornamental lawn and landscape with impervious patios and walkways. There is minimal vegetation other than lawn. The expected function and values of a shoreline buffer are not found on the existing site. The project proposes planting within the shoreline buffer as mitigation to improve the function and value of the shoreline buffer, which is expected to provide the necessary net increase of certain critical area functions. As approved and conditioned, the project meets the purpose and intent of the critical areas report.

IV. Public Notice and Comment

Application Date:	February 8, 2016
Public Notice (500 feet):	April 7, 2016
Minimum Comment Period:	April 21, 2016

The Notice of Application for this project was published the City of Bellevue weekly permit bulletin and Seattle Times on April 7, 2016. It was mailed to property owners within 500 feet of the project site. No comments were received.

V. Summary of Technical Reviews

A. Clearing and Grading

The Clearing and Grading Division of the Development Services Department has reviewed the proposed site development for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff found no issues with the proposed development and has approved the application.

VI. Changes to Proposal Due to Staff Review

No changes to the plan were requested.

VII. Decision Criteria

A. 20.25H.255.A Critical Areas Report Decision Criteria

The Director may approve, or approve with modifications, a proposal to reduce the regulated critical area buffer on a site where the applicant demonstrates:

1. **The modifications and performance standards included in the proposal lead to levels of protection of critical area functions and values at least as protective as application of the regulations and standards of this code;**
   While the prime modification proposed is to the shoreline setback there is also impact to the shoreline buffer from replaced improvements within the buffer. These improvements slightly modify the buffer area impacted by removing a patio and walkway and replacing it with a boardwalk along the bulkhead. Based on the submitted critical areas report the buffer will have a gain in vegetation which will increase the buffer function along the shoreline above the lawn which currently exists. The plan proposes to install 100 square feet of mitigation planting but this does not achieve sufficient mitigation for the boardwalk which is a new improvement that is also expanding into the buffer beyond the existing walkway. A total of 340 square feet of

planting is required, based on the area of the boardwalk. This minimal planting will increase the buffer function needed to show a net gain in overall function. **See Conditions of Approval in Section IX of this report.**

2. **Adequate resources to ensure completion of any required restoration, mitigation and monitoring efforts;**
   Mitigation planting is required and found with the critical areas report as attachment 2 and as conditioned in this report to provide a total planting area of 340 square feet. The plants shall be drawn from the City's shoreline planting template or as recommended by the project biologist. However the planting must include some trees, which can be deciduous and positioned for view and convenience provided they are within the buffer and can have the opportunity to input into the water. The planting will be maintained and monitored for a period of at least five years. A maintenance surety will be required based on the submitted cost estimate. The surety will be released after a final inspection by Land Use staff that finds the project has met the performance standards below.

   Year 1 (from date of plant installation)
   - 100% survival of all installed plants and/or replanting in following dormant season to reestablish 100% of original plantings
   - Less than 10% coverage of invasive plants in planting area

   Year 2 (from date of plant installation)
   - At least 90% survival of all installed material
   - Less than 10% coverage of planting area by invasive species or non-native/ornamental vegetation
   -

   Year 3, 4, & 5 (from date of plant installation)
   - At least 85% survival of all installed material
   - At least 35% (Yr3), 50% (Yr4), 70% (Yr5) coverage of the planting area by native plants in each year respectively
   - Less than 10% coverage by invasive species or non-native/ornamental vegetation

   An annual monitoring report shall be submitted to Land Use staff which documents the mitigation success in meeting the performance standards above, any maintenance activities, and any replanting or replacement of plants that occurs. The mitigation and monitoring plan can be found in the Critical Areas Report which is Attachment 2. **See Conditions of Approval in Section IX of this report.**

3. **The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site; and**
   The modifications and performance measures in this proposal are not detrimental to the functions and values of the shoreline.

4. **The resulting development is compatible with other uses and development in**

the same land use district.
The residential development is compatible with the other residential uses in this land use district.

B. 20.30P.140 Critical Area Land Use Permit Decision Criteria – Decision Criteria
The Director may approve, or approve with modifications an application for a Critical Area Land Use Permit if:

1. **The proposal obtains all other permits required by the Land Use Code;**
   Finding: A building permit application and any other required permit shall be issued before construction may begin. **See Conditions of Approval in Section IX of this report.**

2. **The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;**
   Finding: The proposal is consistent with required performance standards for projects in the shoreline overlay district. The resulting development will remove impervious surfaces within the buffer and replace them with a wooden boardwalk that will reduce runoff. The vegetation planting in the buffer will improve stormwater quality in the shoreline buffer which is an improvement over the existing condition and utilizes the best techniques to have the least impact.

3. **The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and;**
   Finding: As discussed in Section III of this report, the applicable performance standards are being met.

4. **The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;**
   Finding: The proposed home will not affect public services or facilities above the current demand created by the existing house.

5. **The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and**
   Finding: A mitigation plan consistent with LUC 20.25H.210 has been submitted and is Attachment 2 of this report. As conditioned in this report a total of 340 square feet of mitigation planting is required to mitigate for the wooden boardwalk placement along the bulkhead. The mitigation planting plan shall be increased to provide the full 340 square feet and shall include two trees to replace the tree that was lost within the buffer. **See Conditions of Approval in Section IX of this report.**

6. **The proposal complies with other applicable requirements of this code.**
   Finding: As discussed in this report, the proposal complies with all other applicable requirements of the Land Use Code.

VIII. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **approve with conditions** the modification of the shoreline structure setback and disturbance of the buffer from the canal of Lake Washington.

Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A building permit, clear and grade permit, and/or utility permit is required and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.

Note- Expiration of Approval: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a building permit or other necessary development permits within one year of the effective date of the approval.

IX. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Tom McFarlane, 425-452-5207
Land Use Code- BCC Title 20	Reilly Pittman, 425-452-4350
Noise Control- BCC 9.18	Reilly Pittman, 425-452-2973

The following conditions are imposed under the Bellevue City Code authority referenced:

1. **Building Permit Required:** Approval of this Critical Areas Land Use Permit does not constitute an approval of a development permit. Building permit 16-122108-BS is required to be approved. Plans submitted as part of the permit application shall be consistent with the plans reviewed and conditioned for this approval.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

2. **Revised Mitigation Plan:** The submitted mitigation plan is required to be revised to show a total of 340 square feet of planting area within the shoreline buffer. The revised plan shall be submitted under the building permit. The planting shall be as found on the City's shoreline planting templates or as recommended by the project biologist. The plan must include two trees to replace the tree lost in the buffer.

   Authority: Land Use Code 20.20.025
   Reviewer: Reilly Pittman, Development Services Department

3. **Maintenance and Monitoring:** The submitted monitoring plan included in Attachment 2 is required to be implemented for the specified five years. Annual monitoring reports are required to be submitted to Land Use staff. Monitoring reports should be mailed to:

   Environmental Planning Manager
   Development Services Department
   City of Bellevue
   PO Box 90012
   Bellevue, WA 98009-9012

   Authority: Land Use Code 20.25H.220
   Reviewer: Reilly Pittman, Development Services Department

4. **Cost Estimate:** The submitted cost estimate for the maintenance surety is required to be revised to incorporate maintenance and monitoring of the additional planting area.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

5. **Land Use Inspection:** Following installation of planting the applicant shall contact Land Use staff to inspect the planting area. At the end of 5 years inspection by Land Use staff is required to release the maintenance surety. Staff will need to find that the plants are in a healthy and growing condition and the mitigation plan is successful per the established performance standards in the monitoring plan. Throughout the monitoring period Land Use staff has the right to enter the property to inspect the planting.

   Authority: Land Use Code 20.30P.140
   Reviewer: Reilly Pittman, Development Services Department

6. **Noise Control:** Noise related to construction is exempt from the provisions of BCC 9.18 between the hours of 7 am to 6 pm Monday through Friday and 9 am to 6 pm on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Noise emanating from construction is prohibited on Sundays or legal holidays unless expanded hours of operation are specifically authorized in advance. Requests for construction hour extension must be done in advance with submittal of a construction noise expanded exempt hours permit.

   Authority: Bellevue City Code 9.18
   Reviewer: Reilly Pittman, Development Services Department

SCALE THIS DRAWING, IN FEET

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

BUILDING HEIGHT CALCS

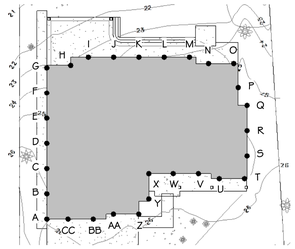
MAX BLDG HT (PER CCR'S): 30' ABOVE HIGHEST POINT OF TOPO IN CONTACT WITH STRUCTURE — 26' - 0"

HIGHEST POINT OF TOPO: — 56'-0"

ALLOWABLE MAX BLDG. HT: — 54'-10"

ACTUAL MAX BLDG. HT:
*SEE A4.1, SECTION 1

BUILDING HEIGHT KEY PLAN



SCALE: 1" = 30'-0"

BUILDING HEIGHT TABULATION

POINT	ELEVATION	COUNT
A	25.7'	1
B	26.2'	1
C	26.0'	1
D	25.7'	1
E	25.2'	1
F	24.2'	1
G	23.2'	1
H	23.3'	1
I	23.2'	1
J	23.4'	1
K	23.7'	1
L	23.8'	1
M	24.1'	1
N	24.4'	1
O	24.9'	1
P	25.1'	1
Q	25.2'	1
R	25.4'	1
S	25.6'	1
T	25.8'	1
U	25.8'	1
V	25.8'	1
W	25.7'	1
X	25.6'	1
Y	25.9'	1
Z	25.7'	1
AA	25.7'	1
BB	25.7'	1
CC	25.7'	1

725.7' / 29 | 25.0' = AVG. EXISTING GRADE

MAX BUILDING HEIGHT

AVERAGE EXISTING GRADE = 25.0'
MAIN FLOOR ELEVATION = 25.0'
RIDGE ELEVATION = 54.8'

ALLOWABLE BUILDING HEIGHT = 25.0' + 30' = 60.0'

54.8' IS LESS THAN 60.0' = OK
(SEE ELEVATIONS FOR COMPLIANCE DIAGRAM)

LOT ZONING

(BELLEVUE LUC 20.20.010)

LOT ZONING:	R-2.5
TOTAL LOT SIZE:	21,848 sf
WATER AREA:	7,944 sf
NET LOT AREA:	13,904 sf

SETBACKS

FRONT YARD:	20' MIN (PER CITY) - 25' MIN (PER CCR'S)
REAR YARD:	25' MIN (PER CITY / CCR'S)
SIDE YARDS:	5' MIN, 15' COMBINED (PER CITY) - 10' MIN (PER CCR'S)

NOTE: EAVES AND MINOR BUILDING ELEMENTS CAN ENCROACH UP TO 18" (LUC 20.20.025.C)

LOT COVERAGE

EXIST. LOT COVERAGE	4,191 sf
MAX LOT COVERAGE BY NEW STRUCTURES (35%):	4,866 sf
BUILDING FOOTPRINT	4,151 sf
COVERED PORCHES & BALCONIES	680 sf
TOTAL STRUCTURAL AREA:	4,831 sf
STRUCTURAL LOT COVERAGE:	34% (OK!)

IMPERVIOUS

EXISTING IMPERVIOUS:	5,254 sf
MAX. IMPERVIOUS SURFACE AREA (50%):	6,952 sf
ROOF AREA OF NEW RESIDENCE: (dripline including balconies)	5,192 sf
PATIOS & WALKS:	749 sf
DRIVEWAY:	918 sf
TOTAL PROPOSED IMPERVIOUS:	6,859 sf
IMPERVIOUS SURFACE COVERAGE:	49% (OK!)

GENERAL NOTES

1. ALL ROOF DRAINS AND FOOTING DRAINS SHALL BE SEPARATED. TIGHTLINE EACH TO STORM DRAINAGE SYSTEM AS REQUIRED. SEE DRAINAGE NOTES.
2. ALL EXCAVATED MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND HAULED TO AN APPROVED DUMP SITE.
3. SEE DRAWINGS A0.0 & A0.1 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE AND TESC MEASURES.
4. DISCONNECT AND PROTECT EXISTING SANITARY SEWER STUB. RECONNECT TO EXISTING STUB.
5. DISCONNECT ALL OTHER UTILITIES, PROTECT FROM DAMAGE DURING CONSTRUCTION. RECONNECT TO EXISTING UTILITIIES.
6. ALL ROCK RETAINING WALLS OVER 4 FEET IN HEIGHT SHALL BE ENGINEERED BY THE INSTALLER IN ACCORDANCE WITH LOCAL CODES.
7. ALL SITE AND FOUNDATION WORK SHALL BE REVIEWED AND MONITORED BY THE GEOTECHNICAL ENGINEER TO VERIFY COMPLIANCE WITH THE DESIGN CRITRIA.

DEMOLITION NOTES

1. INSTALL SILT FENCING AND TREE PROTECTION STRUCTURES BEFORE BEGINNING ANY WORK ON SITE.
2. DISCONNECT AND CAP ALL EXISTING UTILITIES AS REQUIRED BY THE SERVING UTILITY AND CITY.
3. COMPLETE RODENT CONTROL PROGRAM.
4. COMPLETE ASBESTOS ABATEMENT PROGRAM.
5. DEMOLISH EXISTING SINGLE FAMILY DWELLING COMPLETELY. SEE SURVEY DRAWING FOR SCOPE OF STRUCTURE DEMOLITION.
6. REMOVE ALL LANDSCAPE STRUCTURES TO THE EXTENT POSSIBLE WHILE PROTECTING THE SIGNIFICANT TREES TO REMAIN.
7. REMOVE ALL DEBRIS FROM THE SITE AND DISPOSE OFF-SITE IN A LEGAL MANNER.
8. SEE DRAWINGS A0.0 & A0.1 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE AND TESC MEASURES.

SITE PLAN

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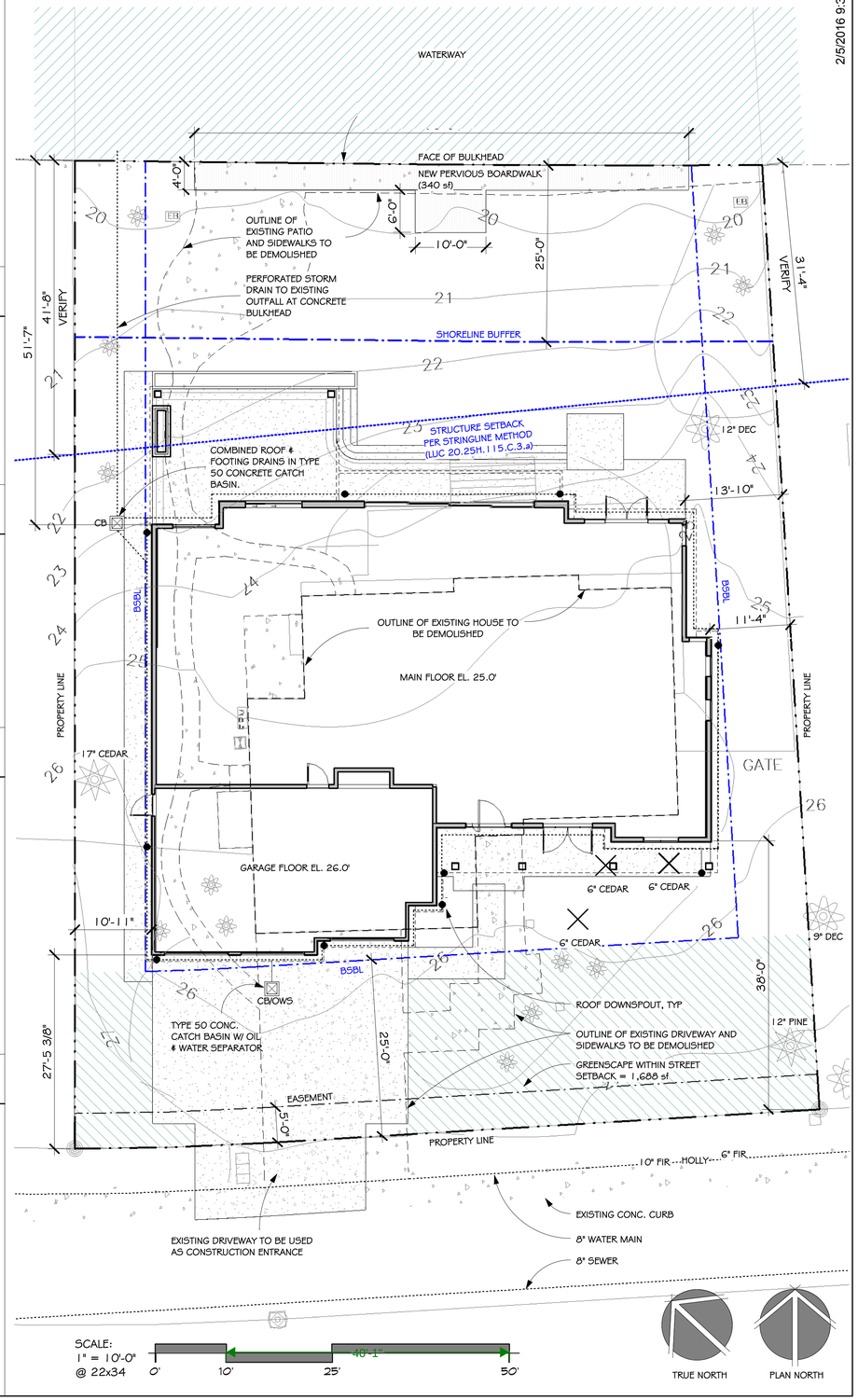

DATE	REV.	BY	DESCRIPTION
02/05/16		DAN	PERMIT SUBMITTAL

WEBER RESIDENCE

15 CRESCENT KEY
BELLEVUE, WA 98006
Parcel #: 606530-0490

SITE PLAN

MacPHERSON CONSTRUCTION & DESIGN
21626 SE 28TH ST, SAMMAMISH, WA 98075-7125
PH. 425.391.3333 FAX 425.557.2841

DRAWING NUMBER:

A1.0

CRITICAL AREAS REPORT

WEBER RESIDENCE REDEVELOPMENT

15 Crescent Key
Bellevue Washington 98006
(Parcel #606530-0490)

Prepared by:
Cedarock Consultants, Inc.
19609 244th Avenue NE
Woodinville, Washington 98077

Prepared for:
MacPherson Construction & Design
21626 SE 28th Street
Washington Washington 98075

February 3, 2016

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1.0 INTRODUCTION

1.1 Project Description

An existing home located at 15 Crescent Key on Lake Washington will be razed and replaced with an all new structure (Figure 1). The work will include minor changes within the shoreline buffer and structure setback area. No part of the new structure will be located in the buffer. A small (314 sf) extension of the house into the setback area is proposed. The house extension will displace lawn and concrete patio currently within the setback area so no clearing or grading is necessary. As mitigation, the applicant will remove most of an existing concrete walkway from the buffer and setback area, and add new native plantings to the buffer.

1.2 Purpose of this Report

This report was prepared to evaluate environmental effects of the proposed project action on critical areas as required for a Structure Setback Modification (LUC 20.25H.115.C.3.b). Mitigation is proposed to enhance critical area functions and values.

1.3 Report Author

This report was prepared by Carl Hadley, a professional biologist with over 25 years of experience in western Washington.

2.0 EXISTING CONDITIONS

This section provides a description of critical areas on and within 100-feet of the proposed redevelopment area under existing conditions. Critical areas within 100-feet of the work area include the Lake Washington Shoreline Management Area, the FEMA floodplain, and habitat associated with species of local, state, and federal importance. Adjoining properties include similar critical areas.

2.1 Lake Washington

The Weber property abuts a manmade canal tributary to Lake Washington. Lake Washington is a shoreline of the state (classified as a Type S water under the Bellevue land use code LUC 20.25H.075.B.1). The canal in this area is approximately 100-feet wide and has been dredged to provide navigation for small personal vessels. The entire shoreline has been armored with a concrete bulkhead that delineates both ordinary high water (OHW) and the FEMA floodplain limits.

Figure 1. Weber property on Lake Washington (2013) showing approximate shoreline critical area limits. The three 6-inch dbh cedar trees to be removed are also shown.

2.2 Streams

No watercourses are mapped on any City of Bellevue[1], County, or state databases within more than 200-feet from the proposed work area. Coal Creek is the nearest stream and is located approximately 2,000-feet to the northwest. Coal Creek is a fish-bearing stream with known use by salmon and resident trout[2].

[1] City of Bellevue Critical Areas, South Washington Basin. July 2009.
[2] Washington Department of Fish and Wildlife. 2016. Priority habitat and species database.

2.3 Wetlands

A cursory examination of the property and a review of public records found no evidence of wetlands on the site. No seeps or wetland plants were noted. No evidence of shallow groundwater has been observed at the site.

2.4 Geologic Hazard Areas

This area of the shoreline is almost flat with only very gentle grades. No steep slopes or other geologic hazards have been mapped within more than 1,000 feet of the site.

2.5 Species of Local Importance

The wildlife habitat review consisted of a site-specific survey and consultation with the Washington Department of Fish and Wildlife database[3]. The site and surrounding lands have been developed mostly as moderate-density single-unit residential housing (Figure 1). The only wildlife habitat suitable for terrestrial and avian species found in the area is provided by older landscaping trees and various small patches of landscaping shrubbery. However, overall wildlife habitat quality is significantly affected by fragmentation and introduction of non-native landscaping species (e.g. English ivy, English holly, Himalayan blackberry, and turf grasses). Newcastle Beach Park located approximately 900-feet to the south contains the nearest large blocks of good quality wildlife habitat. Pre-development conditions in the area where work will occur within the shoreline setback are shown in Figure 2.

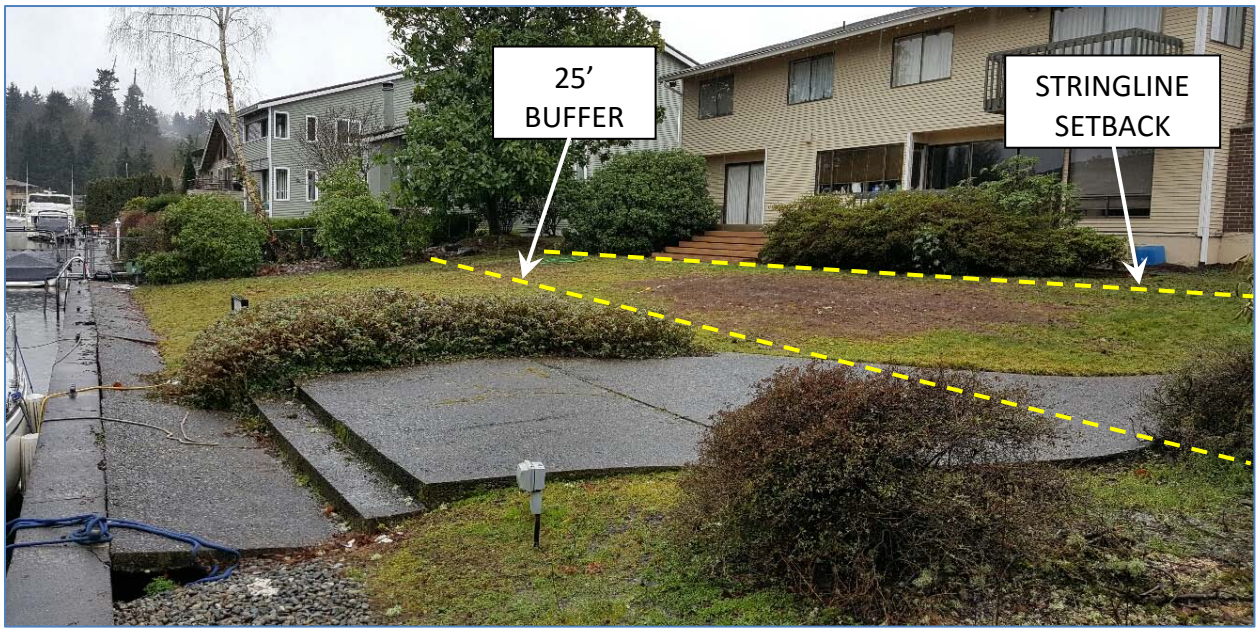


Figure 2. Habitat conditions in January 2016 looking east from the northwest corner of the property. Approximate buffer and setback limits area shown.

[3] WDFW. 2016. Ibid.

Species that may be expected to be found intermittently on this site are deer, raccoon, possum, coyote, Douglas and eastern grey squirrels, other assorted rodent species, and song birds, including species of local importance listed by the City of Bellevue (LUC 20.25H.150.A). There are a few large deciduous trees suitable for eagle, hawk, and owl perching on and near the site but no nesting activity by sensitive species is known to have occurred in the recent past (WDFW 2016).

Chinook, coho, and sockeye salmon; steelhead; and resident trout are found in Lake Washington and Coal Creek.

2.6 Flood Hazard Areas

Land subject to one-hundred-year flooding is present on the property but is located waterward of the existing concrete bulkhead (Figure 1).

3.0 PROJECT EFFECTS ON CRITICAL AREAS

Critical areas are defined in the City of Bellevue under BCC LUC 20.25H.025. They include streams, wetlands, shorelines, geologic hazards, habitat and species of local importance, flood hazard areas, and buffers. Existing conditions of each critical area on or near the site are described in Section 2.0 of this report. This section describes any changes that will be made to the critical areas, and any expected changes to the functions or values that will occur. Critical Area functions and values for fish and wildlife species are based on WDFW guidelines[4] and other best available science[5].

3.1 Streams and Lakes

No work is proposed within any waterbody or within more than 1,000-feet of any stream. No work other than reconfiguring the existing concrete walkway and proposed compensatory mitigation is proposed within the 25-foot buffer of Lake Washington. The work area does not drain via surface channels to any waterbody. No riparian vegetation other than turf grass will be removed from the buffer and setback area. Compensatory mitigation will enhance approximately 100 square feet (sf) of the shoreline buffer with new native shrubs. The project is not expected to have any adverse effect on the functions or values of streams, lakes, or buffers.

3.2 Wetlands

No wetlands, seeps or springs or buffers are in the area. The project is not expected to have any adverse effect on wetlands.

[4] Ibid.

[5] For example, see Citations of Recommended Sources of Best Available Science for Designating and Protecting Critical Areas. 2002. Washington State Office of Community Development, Olympia, WA. and City of Bellevue's 2005 Best Available Science (BAS) Review (Herrera 2005).

3.3 Shorelines

The proposed action will replace an existing single residence located in a highly developed area of the Shoreline Management Area. The new house will be located for the most part over the previous house and lawn footprint. No riparian vegetation other than turf grass will be removed from within 50-feet of Lake Washington. A total of three 6-inch cedars located more than 100-feet from Lake Washington and on the far side of the house will be removed. None of the larger trees will be affected. Proposed work within the shoreline buffer will eliminate some impervious area and increase the number of native plants. Work within the shoreline setback area will increase the structure footprint at the loss of some existing lawn. The area of setback to be disturbed has no direct or protective function or value as habitat. The project is not expected to have any adverse effects on the Shoreline Management Area.

3.4 Geologic Hazard Areas

Under the proposed action no disturbance is proposed within a geologic hazard area or buffer.

3.5 Species of Local Importance

With the exception of turf grass and three medium (less than 20-feet tall) cedar trees, no vegetation will be disturbed to redevelop the property. No new human activities will be introduced to the area. Overall, there will some short term disturbance during construction, but no significant long term adverse effects on upland wildlife habitat.

Sensitive fish species are found in Lake Washington. The project will not change the quantity or quality of water being delivered to any waterbody, will not affect physical condition below OHW, and will not affect the functions and values of riparian buffers near either waterbody. The project will have no effect on fisheries resources.

3.6 Flood Hazard Areas

No work is proposed within any flood hazard area. The project will have no effect on flood storage volume.

3.7 Critical Areas Effects Summary

The proposed action will not directly alter any critical area. Some grading and removal of turf grass and concrete is proposed within the shoreline buffer and setback area, and the house will be extended into the setback area, but the overall habitat quality and functional value will not change. The work will take place within an area that contains a few larger habitat trees, but will avoid the need to remove any of the significant habitat trees. No significant long term adverse effects on upland wildlife habitat and no adverse effects on any other critical areas are expected. Minor impacts are being mitigated by enhancing 100 sf of land within 25-feet of OHW, and eliminating a net total of 69 sf of development within 50-feet of OHW. The modification request with proposed mitigation will lead to equivalent or better protection of

critical area functions and values than would result from the application of the standard requirements (see Section 5).

Table 1. Critical Area Impacts

Location of Impact	Area of Permanent Disturbance		
	Existing	Future	Change
Streams and Buffers	0	0	0
Wetland and Buffers	0	0	0
Lake Washington Buffer (within 25 feet of OHWM)	667 sf	340 sf	-327 sf
Building setback (25-50 feet from OHWM)	56 sf	314 sf	258 sf
Steep Slope and Buffers	0	0	0
Flood Hazard Area	0	0	0
Net Change in Permanent Disturbance -			-69 sf

4.0 MITIGATION

The primary means of mitigation for redevelopment of this lot has been avoidance of critical areas. Only the shoreline setback area will be disturbed with the addition of 314 sf of new house; however, the setback intrusion consists only of lawn and concrete under existing conditions. Compensatory mitigation in the form of shoreline habitat improvements is proposed to help offset any adverse impacts.

4.1 Impact Avoidance

The following actions are proposed to avoid impacts to critical areas:

- No development is proposed within any critical areas or critical area buffers.
- None of the dominant (> 6-inch) trees on the site will be disturbed.

4.2 Impact Minimization

The following actions are proposed to minimize impacts:

- The pre-existing house footprint and lawn will be reused for the most part to develop the new house.
- Impacts to native vegetation will be limited to the area greater than 100-feet from Lake Washington and will consist solely of young to moderate aged landscaping species.
- Work within the shoreline buffer area will be limited to enhancement actions.

4.3 Compensatory Mitigation

Compensatory mitigation is proposed with the goal of enhancement of critical area functions associated with the shoreline buffer (Figure 3). The following actions are proposed to mitigate for impacts:

- A total of 723 sf of concrete pavement (walkway) located within the shoreline buffer and setback area will be removed and replaced with 340 sf of pervious boardwalk.
- A 100+ sf area immediately adjacent to Lake Washington will be enhanced with new native species.

Figure 3. Shoreline impacts and mitigation.

Table 2. Impact and Mitigation Area (w/in 50-feet of Lake Washington)

Impact (sf)	Mitigation (sf)	Description
314		Construction of new Single Family Residence (SFR) in building setback area
340		New pervious boardwalk in buffer (to partially replace existing concrete walkway)
	723	Concrete walkway removal from buffer and setback area
	100	Addition of new native plantings to buffer
654	**823**	**Conclusion: Mitigation area exceeds impact area by 26%**

5.0 SETBACK MODIFICATION REQUEST

The proposed work involves reconfiguration of a small area of shoreline setback area that currently consists of concrete walkway and lawn. Decision criteria are described in LUC 20.25H.255.A and listed below with an analysis of how the project meets the criteria. Mitigation measures are described above in Section 4.

(1) The modifications and performance standards included in the proposal lead to levels of protection of critical area functions and values at least as protective as application of the regulations and standards of this code;

Proposed modifications involve reconfiguration of a small area of the shoreline setback area that currently consists of concrete and lawn. The area to be modified contains minimal critical area functions and values. Under standard LUC rules, the setback would remain unmodified, and the existing non-functional conditions would remain. Under the proposed action, with compensatory mitigation, the buffer and setback area will have a net gain in native vegetation

and pervious surface. A net increase in shoreline functions and values is expected. The modification request with proposed mitigation will lead to equivalent or better protection of critical area functions and values than would result from the application of the standard requirements.

(2) Adequate resources to ensure completion of any required restoration, mitigation and monitoring efforts;

Costs to complete the proposed mitigation will be undertaken as part of the redevelopment action with only minimal additional costs (Section 6.3). Monitoring will be completed by the homeowner.

(3) The modifications and performance standards included in the proposal are not detrimental to the functions and values of critical area and critical area buffers off-site; and

Proposed modifications involve reconfiguration of a small area of existing lawn, removal of some concrete walkway, and planting of some native shrubs. These changes will have no effect off-site.

(4) The resulting development is compatible with other uses and development in the same land use district.

The proposed house and landscaping will be similar in size, quality, and vegetation with other residences in the area. No conflicts are expected.

6.0 MAINTENANCE, MONITORING, AND BONDING

6.1 Maintenance

Controlling any non-native species and re-establishing native vegetation are the primary goals of this maintenance plan. Activities required to maintain new plantings include initial watering of the new plants, and periodic removal of non-native vegetation (weeding) within the buffer area.

New plantings shall be watered from May through mid-October during the first season. A temporary irrigation system is allowed. A potable water source is available for this use.

Due to the aggressively invasive habit of non-native species and the existence of nearby seed sources, control efforts shall be completed for five years following initial plant installation. Establishment of native plantings over the five year time period will create a well established native habitat lessening the chance for non-native vegetation invasion. The control of invasive weeds (competing grasses and herbs) shall be mechanically provided at the base of each plant at a minimum of twice per year, or more, should additional weeding be deemed necessary. The optimal season for weed control occurs in April thru September. The use of herbicides and

pesticides after new planting operations is strictly prohibited unless given written permission by the City of Bellevue. All work shall be performed by hand with the lightest possible equipment.

6.2 Monitoring

Due to the small size and lack of critical areas being impacted, the planting area shall be self-maintained and self-monitored by the homeowner for five years. Vegetation monitoring shall consist of plant inspection to determine the health and vigor of each plant. All planted material in the buffer shall be inspected once a year for five years to determine the health of each specimen. Dead or dying material shall be replaced the following fall unless plant crowding is believed to be a problem. Plant species substitutions may be made if site conditions are believed responsible for plant mortality. Replacement species must be approved by the City.

Annual monitoring reports shall be submitted to the City of Bellevue, Attn: Environmental Planning Manager in each of the five years by October 31st. Photos of the mitigation planting will be included in the monitoring reports to document the planting. The following schedule and performance standards apply and are evaluated in the report for each year:

Year 1 (from date of plant installation)

- 100% survival of all installed plants and/or replanting in following dormant season to reestablish 100% of original plantings
- Less than 10% coverage of invasive plants in planting area.

Year 2 (from date of plant installation)

- At least 90% survival of all installed material
- Less than 10% coverage of planting area by invasive species or non-native/ornamental vegetation.

Year 3, 4, & 5 (from date of plant installation)

- At least 85% survival of all installed material
- At least 35% (Yr3), 50% (Yr4), 70% (Yr5) coverage of the planting area by native plants in each year respectively.
- Less than 10% coverage by invasive species or non-native/ornamental vegetation.

6.3 Bonding

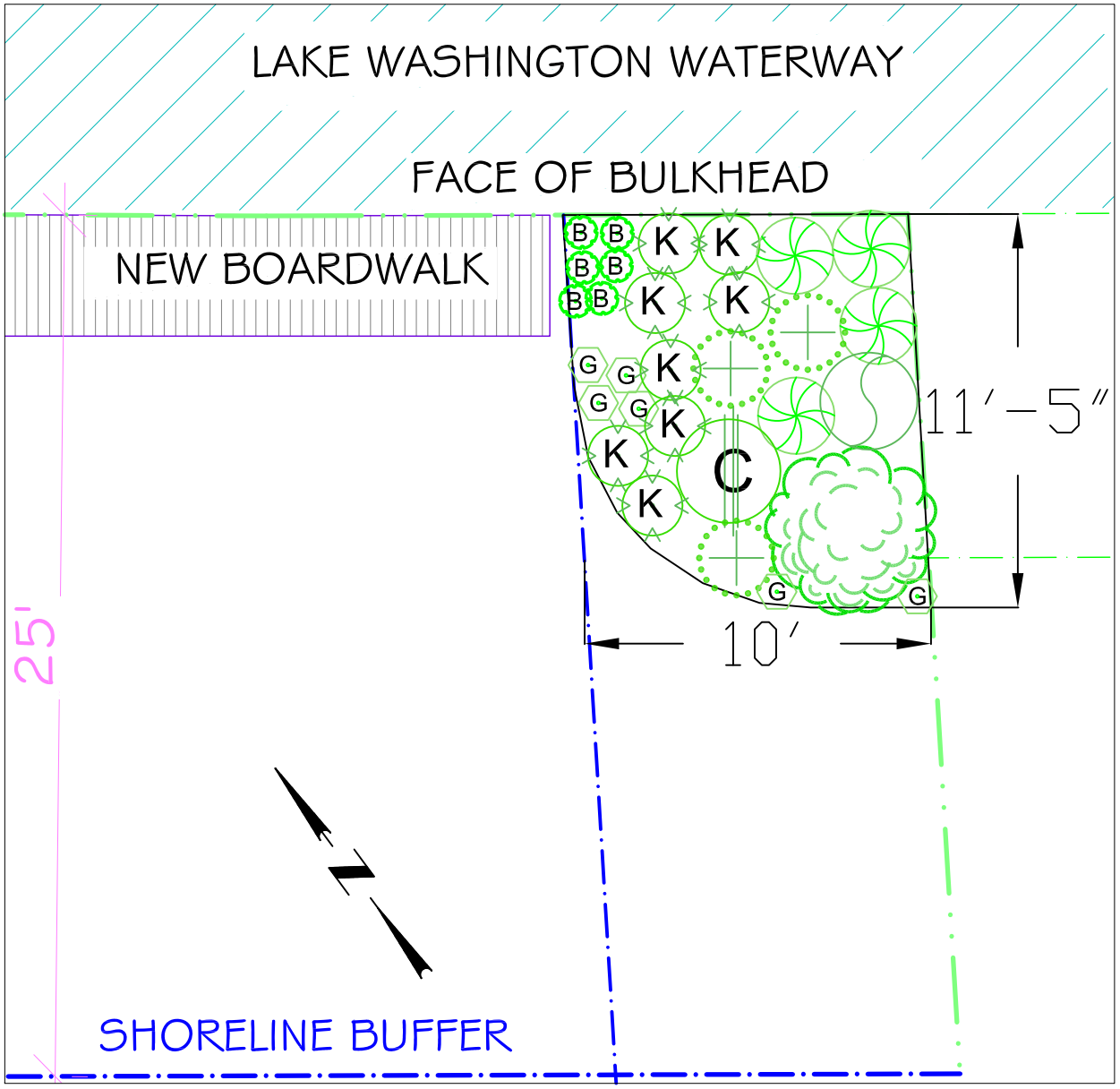
Bonding costs (Table 3) were derived from the 2015 King County Critical Areas Mitigation Bond Quantity Worksheet. They assume planting conditions are already suitable based on the existing landscaping, an existing irrigation system is available, and the homeowner will be responsible for all maintenance and monitoring.

Table 3. Bonding Costs

Plant Materials				
Type	Unit Price	Unit	Quantity	Cost
Plants - 4" pots	$5.00	ea	12	$60
Plants – 1 gal pots	$11.50	ea	15	$172
Plants – 2 gal pots	$20.00	ea	2	$40
			Total plant material -	**$272**
Installation Costs				
Compost	$40	cy	1	$40
Labor – general landscaping	$40	hr	4	$160
			Total installation -	**$200**
			Installation contingency (30%) -	**$142**
			Annual maintenance (5 yrs) -	**$540**
			GRAND TOTAL -	**$1,154**

PLANT NAME AND SPECIES	SIZE	#
K KINNIKINNIK (Arctostaphylos uva-ursi)	1-GAL	8
B PACIFIC BLEEDING HEART (Dicentra formosa)	4"	6
G WILD GINGER (Asarum caudatum)	4"	6
SWORD FERN (Polystichum munitum)	1-GAL	3
PACIFIC RHODODENDRON (R. macrophylum)	2-GAL	1
SALAL (Gaultheria shallon)	1-GAL	4
C RED FLOWERING CURRANT (Ribes sanguineum)	2 -GAL	1
EXISTING SHRUB TO REMAIN		

PLANT 100 SQUARE FEET OF LAND IN THE NORTHEAST CORNER OF THE PROPERTY ADJACENT TO THE LAKE WASHINGTON WATERWAY. PRESERVE AND UNDERPLANT EXISTING SHRUBBERY.



GRAPHIC SCALE 1"=5'

5' 0' 5' 10'

PLANTING PLAN - DETAILS

APPLICANT: WEBER

15 Crescent Key

Bellevue Washington 98006

February 3, 2016

PLANTING DETAILS

PLANT INSTALLATION
1. Plant materials shall be nursery grown or collected in the Puget Sound area. Plants shall be normal in pattern of growth, healthy, well–branched, vigorous, with well–developed root systems, and free of pests and diseases. Damaged, diseased, pest–infested, scraped, bruised, dried out, burned, broken, or defective plants will be rejected.
2. If selected species are not available or desirable, then similar species may be substituted with approval from owner and City of Bellevue.
3. Planting shall occur during the cool season (September 15 through March 15).
4. Landscaper shall examine soils in the area to determine suitability for selected plants. New topsoil or compost amendment shall be added to a depth of 12" where necessary to support plants.
5. Plant all groundcover plants approximately 18–inches on center.
6. Immediately after planting, plants shall be watered to saturation.
7. Planting locations shown on the plan are approximate. Actual planting locations shall be field determined at time of planting by landscape architect or biologist. If significant changes are made, an as–built plan shall be prepared and submitted to the City of Bellevue. A minimum of 100 sf of new plantings shall be installed and maintained.
8. Provide good quality landscape mulch around all shrubs.

LANDSCAPING MAINTENANCE
1. Controlling any non–native species and re–establishing native vegetation are the primary goals of this maintenance plan. Activities required to maintain new plantings include initial watering of the new plants, and periodic removal of non–native vegetation (weeding) within the planting area.
2. New plantings shall be watered from May through mid–October during the first season. A temporary irrigation system is allowed. A potable water source is available for this use.
3. Due to the aggressively invasive habit of many non–native species around Lake Washington, and the existence of nearby seed sources, control efforts shall be completed for five years following initial plant installation. Establishment of native plantings over the five year time period will create a well established native habitat lessening the chance for non–native vegetation invasion.
4. The control of invasive weeds (competing grasses and herbs) shall be mechanically provided throughout the planting area at a minimum of twice per year, or more should additional weeding be deemed necessary. The optimal season for weed control occurs in April thru September. The use of herbicides and pesticides after new planting operations is strictly prohibited unless given written permission by the City of Bellevue. All work shall be performed by hand with the lightest possible equipment.

MONITORING
1) Compliance monitoring consists of evaluating the plants and shoreline planting area immediately after plant installation. The objective is to verify that all design features, as agreed to in the plans, have been correctly and fully implemented, and that any changes made in the field are consistent with the intent of the design. Evaluation of the planting areas after restoration will be done by the homeowner. A brief compliance report will be prepared describing final plant counts and noting any substitutions or movement of plants when compared to the design. Rationale for changes shall be provided. Three photo points will be established giving complete coverage of the buffer area.

2) Long Term Monitoring – New plantings will be monitored in the summer once a year for a five year period. Monitoring will be conducted by the homeowner to quantify the survival, relative health and growth of plant material. An annual monitoring report submitted to the City following each years monitoring visit will describe and quantify the status of the mitigation and provide the three photos from the same locations as the compliance report.

Vegetation monitoring will consist of plant inspection to determine the health and vigor of the installation. All planted material in the buffer will be inspected during each monitoring visit to determine the level of survival of the installation. Each shrub and tree will be rated either as dead, dying, or healthy. Dead or dying material will be replaced the following fall unless plant crowding is believed to be a problem. Plant species substitutions may be made if site conditions are believed responsible for plant mortality. Replacement plants must be approved by the City. Volunteer native, non–invasive species will be included as acceptable components of the mitigation project. Ground covers will be rated as percent ground coverage for each of the major areas covered with these species.

At least three photo points will be established giving complete coverage of the buffer area. Photos will be taken at each point during every monitoring visit and submitted as part of the annual monitoring report.

PERFORMANCE STANDARDS
Year 1 (from date of plant installation)
- 100% survival of all installed plants and/or replanting in following dormant season to reestablish 100% of original plantings
- Less than 10% coverage of invasive plants in planting area.

Year 2 (from date of plant installation)
- At least 90% survival of all installed material (100% of any trees)
- Less than 10% coverage of planting area by invasive species or non–native/ornamental vegetation.

Year 3, 4, & 5 (from date of plant installation)
- At least 85% survival of all installed material (100% of any trees)
- At least 35% (Yr3), 50% (Yr4), 70% (Yr5) coverage of the planting area by native plants in each year respectively.
- Less than 10% coverage by invasive species or non–native/ornamental vegetation.

PLANTING PLAN - DETAILS
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