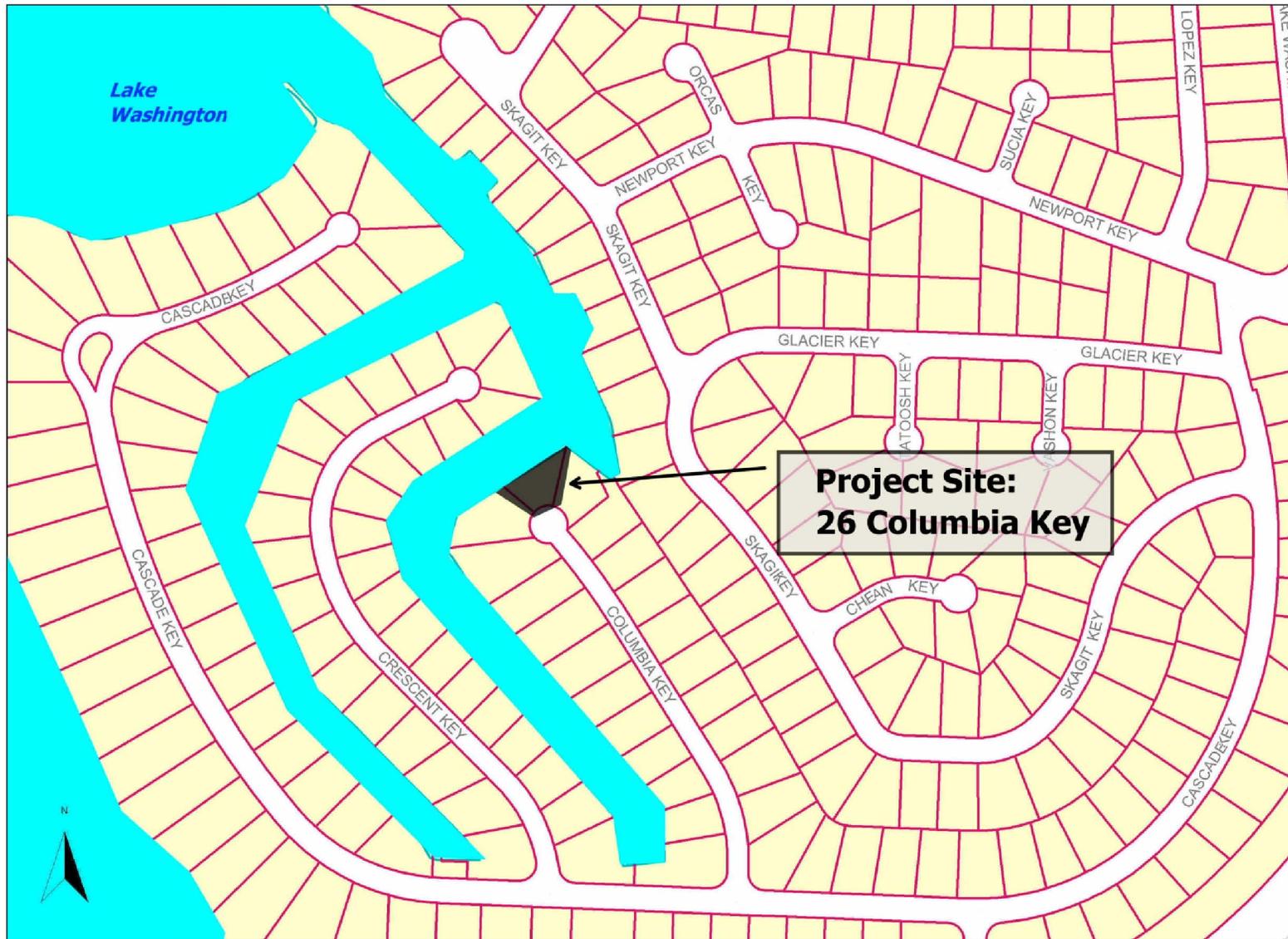


**Preece Deck Replacement  
File Number: 11-105162-LO**





**City of Bellevue  
Development Services Department  
Land Use Staff Report**

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**Proposal Name:** Preece Deck Replacement

**Proposal Address:** 26 Columbia Key

**Proposal Description:** Application for a Critical Areas Land Use Permit for removal and replacement of existing landscape improvements within the 25-foot buffer from a Lake Washington canal. Shoreline Exemption 11-105161-WD is associated with this application

**File Number:** 11-105162-LO

**Applicant:** Chad Wichers, Studio 342

**Decisions Included** Critical Areas Land Use Permit  
(Process II. 20.30P)

**Planner:** Reilly Pittman, Land Use Planner

**State Environmental Policy Act  
Threshold Determination:** **Exempt**  
  
Carol V. Helland, Environmental Coordinator  
Development Services Department

**Director's Decision:** **Approval with Conditions**  
Michael A. Brennan, Director  
Development Services Department  
  
By: Carol V. Helland, Land Use Director

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**Application Date:** March 11, 2011  
**Notice of Application Date:** March 24, 2011  
**Decision Publication Date:** April 14, 2011  
**Project/SEPA Appeal Deadline:** April 28, 2011

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For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Comments on State Environmental Policy Act (SEPA) Determinations can be made with or without appealing the proposal within the noted comment period for a SEPA Determination. 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.

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### Attachments

1. Mitigation Plan revised April 7, 2011 – Enclosed
2. Existing Site Plan revised April 7, 2011– Enclosed
3. Critical Areas Report by Studio 342 revised April 7, 2011 – Enclosed
4. Application Forms and Materials – In File



Figure 2



**B. Zoning**

The property and surrounding properties are zoned R-2.5, single-family residential. The proposed work is allowed in this zone.

**C. Land Use Context**

The property has a Comprehensive Plan Land Use Designation of SF-M (Single-Family Medium Density).

**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.

**ii. Shoreline Overlay District/Shoreline Substantial Development Permit**

The property has frontage along a canal of Lake Washington and is within the Shoreline Overlay District which regulates areas within 200-feet of the Ordinary High Water Mark under the State Shoreline Management Act. The Shoreline Overlay District regulations (LUC 20.25E) allow for uses associated with single-family development which are exempt from the requirement for a Shoreline Substantial Development Permit. A shoreline exemption permit (11-105161-WD) has been applied for which is associated with this approval.

**iii. Critical Areas Overlay District/Critical Area Land Use Permit**

A Critical Area Land Use Permit (CALUP) is required as the applicant is requesting to modify portions of the 25-foot shoreline buffer. These modifications can only be approved through a critical area report submitted under a CALUP.

**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. Existing concrete patios are being replaced with sand set pavers which will cover a smaller area and reduce the total amount of impervious surface coverage on the site. All proposed structures and new rockeries are within the 25-foot rear setback required

in the R-2.5 zone. The proposed deck and trellis are minor building elements (MBEs) defined in LUC 20.20.025 and are allowed to intrude into building setbacks required in LUC 20.20.010. There is no limit on setback intrusion for any structure under 30 inches in height. Rockeries are not MBEs and must be less than 30 inches in height if located in a setback. At time of building permit review a survey verification of topography to identify property elevations will be required in order to ensure all MBEs, structures, and rockeries meet MBE requirements in LUC 20.20.025 or are less than 30 inches in height measured from finished grade. See Conditions of Approval in Section IX of this report.

**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 found in LUC 20.25E as specified in the table below are applicable:

<b>Critical Area</b>	<b>Geologic Hazard- Steep Slopes</b>
<b>Performance Standards</b>	20.25E.080.Q

**i. 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.**

A boat can be moored along the bulkhead in the canal adjacent to the property. No proposal to use a boat as a residence is included in this approval.

**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 decks and impervious surface will be removed and reconfigured. The reconfigured deck and paved area will result in a smaller deck and removal of 131 square feet of impervious surface within the buffer. A path of sand set pavers is proposed to facilitate boat access. 1,780 square feet of new mitigation planting is proposed in the rest of the shoreline buffer which replaces the lawn and impervious surfaces. The shoreline buffer is being modified by a critical areas report as allowed subject to requirements in LUC 20.25H.

3. **Fences essentially parallel with the shoreline are not permitted within critical area buffer or critical area structure setback.**

No new 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 will need to be 30 inches or less in height measured from finished grade in order to be located as proposed within the rear setback or must meet requirements in LUC 20.20.025 for minor building elements.

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.**

Existing large trees on the site are being retained in lieu of planting additional trees as part of the 1,780 square feet of mitigation planting per the submitted mitigation plan as Attachment 1. These existing trees are required to be protected per City of Bellevue BMP T101 for Tree Protection found at this location:

[http://www.bellevuewa.gov/pdf/Development%20Services/CG\\_DevStds2010\\_BMPT101.pdf](http://www.bellevuewa.gov/pdf/Development%20Services/CG_DevStds2010_BMPT101.pdf)

Erosion control is reviewed as part of the development permit by the Clearing and Grading Division. See Conditions of Approval in Section IX of this report.

#### IV. Public Notice and Comment

Application Date:	March 11, 2011
Public Notice (500 feet):	March 24, 2011
Minimum Comment Period:	April, 7, 2011

The Notice of Application for this project was published the City of Bellevue weekly permit bulletin on March 24, 2011. It was mailed to property owners within 500 feet of the project site. Comments were received from the Muckleshoot Indian Tribe regarding the length of proposed monitoring and the dwarf plant varieties chosen. The monitoring of mitigation is required to be 5 years per LUC 20.25H.220. The use of dwarf varieties of native plants is a consideration consistent with the City's planting templates for residential mitigation projects where view sensitivity is an allowed design feature.

#### 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**

Staff requested elevations to review the height of proposed structures in the rear setback and plan notations to show conformance with other requirements of LUC 20.20.010. Also required was the establishment of a monitoring schedule and program for the 5 year monitoring period.

**VII. Decision Criteria**

**A. 20.25H.255.B 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 proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in overall critical area or critical area buffer functions;**

The proposed plan improves the shoreline from by replacing the existing lawn and 131 square feet of impervious surface through addition of new native plantings for habitat benefit, retention of large existing trees and balance between residential recreation and ecological function. Per page 4 and 5 of the submitted critical areas report as Attachment 3 existing buffer has degraded functions which are being improved.

- 2. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in the most important critical area or critical area buffer functions to the ecosystem in which they exist;**

Reduction of impervious surface and establishing a vegetated shoreline buffer will improve stormwater quality, provide some shade to aquatic habitat, and the opportunity for additional organic material input to the lake. However the use of dwarf varieties means there will be marginal improvement in inspect input into the water due to the shorter plant height and their distance away from the bulkhead.

- 3. The proposal includes a net gain in stormwater quality function by the critical area buffer or by elements of the development proposal outside of the reduced regulated critical area buffer;**

Stormwater quality will be improved by the reduction of impervious surface, changing to sand set pavers, and buffer planting to intercept water before it reaches the bulkhead.

- 4. Adequate resources to ensure completion of any required restoration, mitigation and monitoring efforts;**

Mitigation planting is required and found on Attachment 1. 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 five years assuming restoration has been successful. The monitoring plan can

be found in the conditions of approval at the end of this report. See Conditions of Approval in Section IX of this report.

- 5. 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.

- 6. The resulting development is compatible with other uses and development in the same land use district.**

The proposed modifications to the yard area within the shoreline buffer are allowed in this zone and are compatible with adjacent land uses in the Newport Shores canal environment. The proposed improvements and mitigation will create a shoreline buffer with improved functions and values.

#### **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: The applicant must submit a building permit application for the proposed structures which will include clearing and grading review. 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 improve stormwater quality and provide a vegetated shoreline buffer which is improved more than the existing condition.

- 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 activity will not affect public services or facilities.

- 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 to plant 1,780 square feet of new mitigation planting on the property and is Attachment

1 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 buffer and structure setback to reconfigure existing decks and paved surfaces within the 25-foot 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:**

<u>Applicable Ordinances</u>	<u>Contact Person</u>
Clearing and Grading Code- BCC 23.76	Janney Gwo, 425-452-6190
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 or SEPA authority referenced:**

- 1. Building Permit Required:** Approval of this Critical Areas Land Use Permit does not constitute an approval of a development permit. A building permit is required for the proposed deck and trellis and will include any clearing and grading review needed for the rockery. Plans submitted as part of the permit application shall be consistent with the plans reviewed as part of this approval.

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

- 2. Height Verification and Limits of Minor Building Elements and Rockeries:** Survey verification of elevations in the vicinity of the proposed improvements will be required as part of the building permit to verify that the heights of all structures and rockeries located in the 25-foot rear setback. The proposed rockeries, deck, and trellis must be 30 inches or less in height as measured from finished grade or must meet requirements in LUC 20.20.025.C and D for minor building elements and rockeries allowed in setbacks.

Authority: Land Use Code 20.20.025; 20.20.010  
Reviewer: Reilly Pittman, Development Services Department

**3. Tree Protection Requirements**

Trees to be retained are protected during construction per BMP T101 which includes:

- Clearing limits shall be established at the limit of nondisturbed areas and for retained trees within the developed portion of the site, outside of drip lines. Six-foot chain link fencing with driven posts, or an approved alternative, shall be installed at the clearing limits prior to initiation of clearing and grading.
- No excavation or clearing should be performed within drip lines of retained trees except as specifically approved on plans. All such work shall be done by hand to avoid damage to roots and shall be done under the supervision of an arborist or landscape architect.

Authority: Land Use Code 20.25H.220, Bellevue City Code 23.76.060  
Reviewer: Reilly Pittman, Development Services Department

- 4. Maintenance and Monitoring:** The following monitoring plan is required for the maintenance and monitoring of the mitigation planting associated with this approval. Monitoring reports should be mailed to:

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

**Goal:**

- *Establish a shoreline vegetation buffer on the property adjacent to the canal.*

**Objectives:**

- *Plant 3 species of trees, 5 species of shrub, and 3 species of ground cover over a 1,493 square foot area*
- *Remove 131 square feet of impervious surface along the bulkhead*
- *Maintain and protect existing large trees on the site*

**Monitoring:**

*Reports to be submitted to Land Use in years 1, 3, and 5 with maintenance occurring*

*in all 5 years. Photos from the selected photo points will be included in the monitoring reports to document the planting. The following schedule and performance standards apply:*

*Year 1 (one year from date of plant acceptance)*

- 100% survival of all installed material or replanted in following dormant season to reestablish 100%*
- All installed large woody material shall be present and in the same location as when installed.*

*Year 3 (three years from date of plant acceptance)*

- 90% survival of all installed material*
- Less than 10% coverage by invasive species or non-native/ornamental vegetation*

*Year 5 (five years from date of plant acceptance)*

- 80% survival of all installed material*
- Less than 10% coverage by invasive species or non-native/ornamental vegetation*
- 100% of existing large trees to be retained are found on-site unless unforeseen damage or disease occurred which required removal*

Authority: Land Use Code 20.30P.140; 20.25H.220

Reviewer: Reilly Pittman, Development Services Department

- 5. Maintenance Surety:** Based on the submitted cost estimate for maintenance and monitoring a maintenance surety in the amount of \$2658.45 is required which is 20 percent of the total cost estimate. The maintenance surety is required prior to Land Use inspection of the planting installation.

Authority: Land Use Code 20.30P.140

Reviewer: Reilly Pittman, Development Services Department

- 6. Land Use Inspection:** Following installation of planting the applicant shall contact Land Use staff to inspect the planting area. The maintenance surety is required prior to Land Use staff inspection. 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.

Authority: Land Use Code 20.30P.140

Reviewer: Reilly Pittman, Development Services Department

- 7. 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

## **Attachment 1: Mitigation Plan**



**SITE INFORMATION**

Owner: Matt and Bonnie Preece (425) 373-6698  
Site Address: 26 Columbia Key  
Bellevue, WA 98006

Tax Parcel ID #'s: 606530-0400  
Zoning: R-2.5

Existing Property Area (SF): 22,500 Square Feet  
Net Lot Area (minus lake critical area) (SF): 11,614 Square Feet  
Net Lot Coverage area (minus lake critical area) (SF): 3,228 Square Feet (27.8%)  
Existing Impervious Surfacing (SF): 4,520 Square Feet (38.9%)  
Proposed Impervious Surfacing (SF): 4,389 Square Feet (37.8%)  
Ex. Wood Deck Area (SF): 750 Square Feet  
Proposed Wood Deck Area (SF): 742 Square Feet  
Proposed Restoration (Native Vegetation) Area (SF): 1,780 Square Feet  
Total Cubic Yards of Fill (CY): 22 Cubic Yards (Balance cut and fill)  
Total Cubic Yards of Excavation (CY): 22 Cubic Yards (Balance cut and fill)

Legal Description: Section 17, Township 24, Range 5, in King County, Washington, Newport Div. no. 02, Plat 12, Plat Block 2

**NOTES:**

- Contractor to follow all City of Bellevue Clearing and Grading Best Management Practices (BMPs) as governed by the Washington State Department of Ecology Stormwater Management Manual for Western Washington, Volume II. Found here: <http://www.ecy.wa.gov/pubs/0510030.pdf>
- Contractor responsible for installing and maintaining all BMP devices for the duration of the project.
- Contractor to call have all utilities located prior to beginning of construction and is responsible for maintaining those markings for the duration of construction.
- Contractor responsible for any damage to adjacent property or to the public right of way. All damage must be repaired to a condition equal to or better than original condition.
- In the course of maintaining the described restoration planting plan, the use of pesticides, insecticides, and fertilizers shall be in accordance with the City of Bellevue's Environmental Best Management Practices.

**MAINTENANCE & MONITORING PLAN**

Goal: Establish a shoreline vegetation buffer on the property adjacent to the canal.

**Objectives:**  
Plant 3 species of trees, 5 species of shrub, and 3 species of ground cover over a 1,493 square foot area.  
Remove 131 square feet of impervious surface along the bulkhead  
Maintain and protect existing large trees on the site

**Monitoring:**  
Reports to be submitted to Land Use in years 1, 3, and 5 with maintenance occurring in all 5 years. Photos from the selected photo points will be included in the monitoring reports to document the planting. The following schedule and performance standards apply:

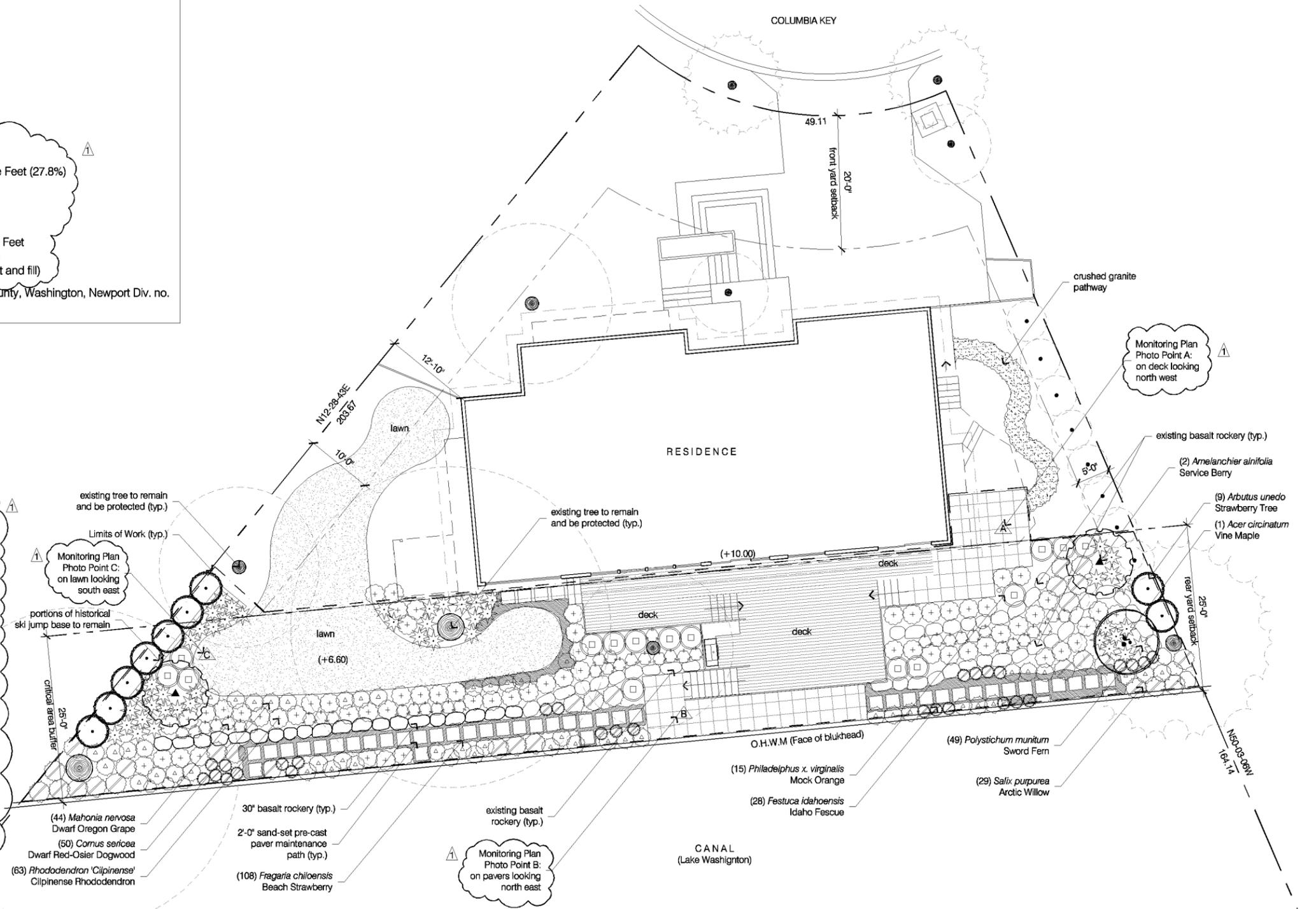
**Year 1: (one year from date of plant acceptance)**  
100% survival of all installed material or replanted in following dormant season to reestablish 100%  
All installed large woody material shall be present and in the same location as when installed.

**Year 3: (three years from date of plant acceptance)**  
90% survival of all installed material  
Less than 10% coverage by invasive species or non-native/ornamental vegetation

**Year 5: (five years from date of plant acceptance)**  
80% survival of all installed material  
Less than 10% coverage by invasive species or non-native/ornamental vegetation  
100% of existing large trees to be retained are found on-site unless unforeseen damage or disease occurred which required removal

If any of the monitoring reports determine that the required survival rate for that specific year has not been met, the owner will be required to replace the dead plants in order to bring the restoration area into compliance with the required survival rate for that year

Monitoring Reports shall be submitted to:  
City of Bellevue Development Services Department  
Project # 10-117010-LO  
450 110th Avenue NE  
Bellevue, WA 98004



Trees				
Quantity	Botanical Name	Common Name	Size	Notes
1	<i>Acer circinatum</i>	Pacific Fire Vine Maple	8 1/2" ht.	Multi stem
9	<i>Arbutus unedo</i>	Dwarf Strawberry Tree	15 ga.	
2	<i>Amelanchier alnifolia</i>	Western Serviceberry	8-10" ht.	Stake as needed

Shrubs				
Quantity	Botanical Name	Common Name	Size	Notes
50	<i>Cornus sericea</i>	Dwarf Red Osier	2 gal.	
44	<i>Mahonia nervosa</i>	Dwarf Oregon Grape	2 gal.	
10	<i>Philadelphus x virginialis</i>	Dwarf Mock Orange	5 gal.	
60	<i>Rhododendron</i>	Cilpinense Rhododendron	5 gal.	
20	<i>Salix purpurea</i>	Dwarf Arctic Willow	2 gal.	

Perennials/Groundcovers				
Quantity	Botanical Name	Common Name	Size	Notes
28	<i>Festuca idahoensis</i>	Idaho Fescue	1 gal.	
108	<i>Fragaria chiloensis</i>	Beach Strawberry	4" pots	
49	<i>Polystichum munitum</i>	Western Sword Fern	1 gal.	

**PLANTING NOTES:**  
1. Contractor to adjust existing irrigation system to provide drip irrigation to all existing and proposed planting areas and head to head coverage on all existing and proposed lawn areas.  
2. All new planting areas to receive 6" of 3-way topsoil mix (Red-E-Topsoil preferred)  
3. All new or repaired lawn areas to receive 6" of Lawn topsoil mix (Red-E-topsoil preferred)  
4. All new planting areas to receive 2" of Pacific Garden Mulch (Pacific Topsoils preferred)



CHAD S. WICHERS  
CERTIFICATE NO. 931

project number: 20101018  
drawn: CSW  
checked: Studio 342

date	issue / revision
3-11-11	Critical Areas Land Use Permit
4-07-11	CALUP revisions

**Restoration Plan**

**Attachment 2:  
Existing Site Plan**

# SITE INFORMATION

Owner: Matt and Bonnie Preece (425) 373-6698  
 Site Address: 26 Columbia Key  
 Bellevue, WA 98006

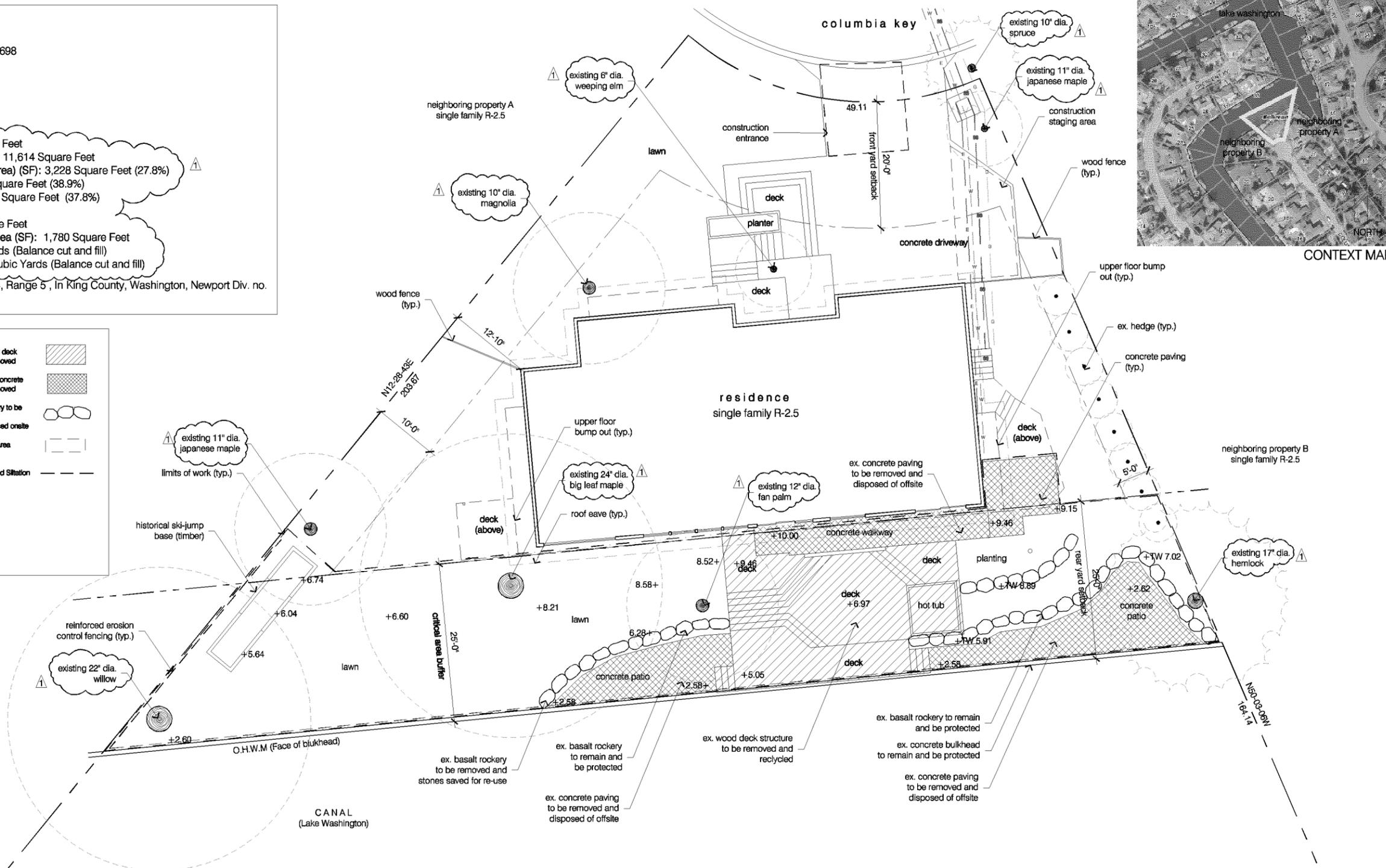
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Legal Description: Section 17, Township 24, Range 5, In King County, Washington, Newport Div. no. 02, Plat 12, Plat Block 2

## LEGEND

Property Line	— — — — —	Ex. Wood deck to be removed	
Limits of work	- - - - -	Existing concrete to be removed	
Construction entrance	- - - - -	Ex. rockery to be removed and re-used onsite	
Yard setbacks	- - - - -	Staging Area	
25' Rear yard Setback/ Critical Area Buffer	- - - - -	Reinforced Situation Fence	
Ex. deck structure	- - - - -		
Roof Eave	- - - - -		
Upper floor bump out	- - - - -		
Gas line	- - - - -		
Sanitary Sewer Line	- - - - -		
Water line	- - - - -		
Power line	- - - - -		



### CLEARING AND GRADING STANDARD NOTES

- All clearing & grading construction must be in accordance with City of Bellevue (COB) Clearing & Grading Code; Clearing & Grading Erosion Control Standard Details (EC-1 through EC-23); Development Standards; Land Use Code; Uniform Building Code; permit conditions; and all other applicable codes, ordinances, and standards. The design elements within these plans have been reviewed according to these requirements. Any variance from adopted erosion control standards is not allowed unless specifically approved by the City of Bellevue Department of Planning & Community Development (PCD) prior to construction. It is the sole responsibility of the applicant and the professional civil engineer to correct any error, omission, or variation from the above requirements found in these plans. All corrections will be at no additional cost or liability to the COB. All details for structural walls, rockeries over four feet in height, geogrid reinforced rockeries, and geogrid reinforced modular block walls must be stamped by a professional engineer.
- 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.
- All locations of existing utilities have been established by field survey or obtained from available records and should, therefore, be considered only approximate and not necessarily complete. It is the sole responsibility of the contractor to independently verify the accuracy of all utility locations and to discover and avoid any other utilities not shown which may be affected by the implementation of this plan.
- The area to be cleared and graded must be flagged by the contractor and approved by the clearing & grading inspector prior to beginning any work on the site.
- A reinforced silt fence must be installed in accordance with COB EC-5 and located as shown on the approved plans or per the clearing & grading inspector, along slope contours and down slope from the building site.

- Clearing will be limited to the areas within the approved disturbance limits. Exposed soils must be covered at the end of each working day when working from October 1st through April 30th. From May 1st through September 30th, exposed soils must be covered at the end of each construction week and also at the threat of rain.
- Any excavated material removed from the construction site and deposited on property within the City limits must be done in compliance with a valid clearing & grading permit. Locations for the mobilization area and stockpiled material must be approved by the clearing & grading inspector at least 24 hours in advance of any stockpiling.
- To reduce the potential for erosion of exposed soils, or when rainy season construction is permitted, the following Best Management Practices (BMPs) are required:
  - Preserve natural vegetation for as long as possible or as required by the clearing & grading inspector.
  - Protect exposed soil using plastic (EC-14), erosion control blankets, straw or mulch (COB Guide to Mulch Materials, Rates, and Use Chart), or as directed by the clearing & grading inspector.
  - Install catch basin inserts as required by the clearing & grading inspector or permit conditions of approval.
  - Install a temporary sediment pond, a series of sedimentation tanks, temporary filter vaults, or other sediment control facilities. Installation of exposed aggregate surfaces requires a separate effluent collection pond on-site.
- Final site grading must direct drainage away from all building structures at a minimum 2% slope, per the Uniform Building Code.
- The contractor must maintain a sweeper on-site during earthwork and immediately remove soil that has been tracked onto paved areas as result of construction.

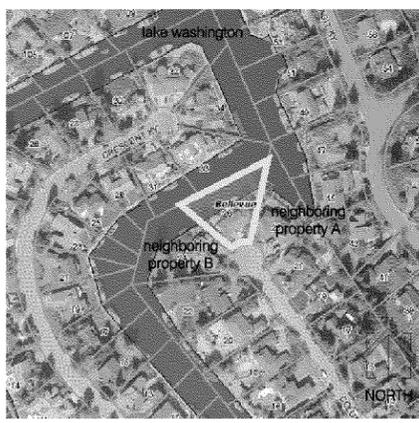
- A public information sign listing 24-hour emergency phone numbers for the city and the contractor may be provided to the applicant at the time the clearing & grading permit is issued. The applicant must post the sign at the project site in full view of the public and the contractors, and it must remain posted until final sign-off by the clearing & grading inspector.
- Turbidity monitoring may be required as a condition of clearing & grading permit approval. If required, turbidity monitoring must be performed in accordance with the approved turbidity monitoring plan and as directed by the clearing & grading inspector. Monitoring must continue during site (earthwork) construction until the final sign-off by the clearing & grading inspector.
- Any project that is subject to Rainy Season Restrictions will not be allowed to perform clearing & grading activities without written approval from the PCD director. The rainy season extends from November 1st through April 30th, as defined in section 23.76.093A of the Clearing & Grading Code.

### PROJECT CONTACT LIST

Owner: Matt and Bonnie Preece (425) 373-6698  
 Landscape Architect: Studio 342 Landscape Architecture  
 Contact: Chad Wichers (206) 545-0342  
 Landscape Contractor: Nussbaum Group  
 Contact: Dale Nussbaum (206) 545-0111

## Preece Residence

26 Columbia Key  
 Bellevue, WA 98006



CONTEXT MAP



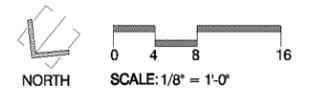
CHAD S. WICHERS  
 CERTIFICATE NO. 931

project number: 20101018  
 drawn: CSW  
 checked: Studio 342

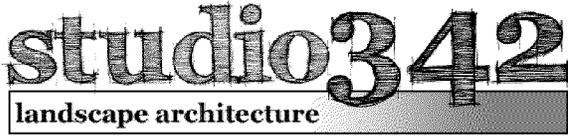
date	issue / revision
3-11-11	Critical Areas Land Use Permit
4-07-11	CALUP Revisions

## Ex. Conditions/ Demolition Plan

L-1



**Attachment 3:  
Critical Areas Report**



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edmonds, wa 98020  
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April 7, 2011

City of Bellevue  
Development Services  
Bellevue, Washington

Critical Areas Land Use Permit Report for:  
**26 Columbia Key, Bellevue, WA 98006**

### **Existing Conditions:**

**Site Description:** The current project site at 26 Columbia Key is a single family waterfront lot, located in the Newport Shores Development. The back of property abuts a bulkhead that contains a canal that is an extension of Lake Washington. The property lines of the parcel extend out into the canal creating a shoreline critical area. There is a 25' critical area buffer that extends from the bulkhead at the rear of the property to the edge of the primary structure.

**Neighboring Properties:** The parcels along either side of 26 Columbia Key, have the same critical area designations as it does. Both properties have a bulkhead along the edge of the canal (Lake Washington) creating a shoreline critical area, along with a 25' critical area buffer extending from the bulkhead towards the primary structure.

### **Regulations and Standards to be Modified:**

Our project proposes to modify or disturb the 25' Shoreline Critical Area Buffer as well as the 25' Shoreline Setback from the buffer as defined in LUC [20.25H.115](#). Our proposed modification to the buffer and setback consists of the removal and replacement of an existing wood deck structure, along with removal of impervious concrete paving located along the edge of the existing bulkhead. Our goal is to replace the existing deck and a small portion of the paving, while removing invasive plantings, and re-vegetating the area with native plantings to create an overall reduction in buffer impervious surface coverage and buffer disturbance.

### **Habitat Assessment:**

The existing 25' Shoreline Critical Area Buffer is comprised of a large wooden deck structure, (2) concrete patio areas, (2) 3-4' tall rockeries, along with a few large trees, a variety of medium sized shrubs, with the remainder of the space being planted with ivy ground cover and lawn.

The existing vegetation currently found within the 25' Shoreline Critical Area buffer is Lawn, Hedra helix (English Ivy), a few different Rhododendron varieties along with the following significant trees: (1) 24" cal. Acer macrophyllum, (1) 18" cal. Tsuga mertensiana, (1) 28" cal. Salix Alba, and (2) 10" Trachycarpus fortunei.

With virtually no large wood debris or native vegetation and with majority of the buffer dominated by the large deck structure and concrete patios, the current buffer conditions do not provide much, if any, real terrestrial or aquatic habitat for the shoreline. Therefore, there is no evidence of any priority species, as

defined by the Washington Department of Fish and Wildlife Priority Habitat and Species List, currently found on the site.

While the canal shoreline found on our site does not meet the majority of the requirements to be considered Riparian Habitat as defined by the Washington Department of Fish and Wildlife's *Management Recommendations for Washington's Priority Habitats: Riparian*, (<http://wdfw.wa.gov/publications/00029/wdfw00029.pdf>) it is listed as a type 1 stream and we acknowledge it as an important potential habitat area that should be protected and restored based on the following recommendations from the priority habitat recommendations referenced in the WDFW document referenced above:

**Minimize soil erosion (WDFW WMR pg. 95):** The existing lawn area found on site slopes steeply down to the edge of the bulkhead and is already showing signs of erosion and settling behind the bulkhead itself. We are proposing to level out the area directly behind the bulkhead while also adding a small natural rockery to reduce the slope of the lawn and better retain the grade in that area. We are also proposing to re-vegetate the new level area adjacent to the bulkhead with native vegetation that will also help stabilize the soils, prevent further erosion, and begin to allow the shoreline to better function as a terrestrial and aquatic habitat transition zone.

**Increase efficiency of water-use (WDFW WMR pg. 96):** As part of the critical area restoration plan, we are proposing to use drip irrigation for all new native planting areas, along with adding 2" of organic mulch to help retain water in the soil. This will help reduce the amount of water lost to evaporation as well as increase the water storage capacity of the soil and reduce the overall amount of water required to ensure plant health.

**Restrict Chemical Treatments (WDFW WMR pg. 104):** In the course of maintaining the proposed restoration planting plan, the use of pesticides, insecticides, and fertilizers shall be in accordance with the City of Bellevue's "Environmental Best Management Practices". This will help prevent chemicals from reaching Lake Washington and increasing aquatic plant and algae growth which can alter natural PH levels of the water and harm fish and other aquatic animals and plants.

**Restore Degraded Riparian Habitat (WDFW WMR pg. 112):** Shoreline buffers typically provide large woody debris and natural organic matter recruitment functions when they are populated by native vegetation. Organic matter recruitment function occurs when leaf-litter, macro-invertebrates, etc., falls from vegetation into aquatic areas. The shoreline critical area buffer on our site is currently impervious concrete, lawn, or invasive vegetation and does little to support woody debris and organic matter recruitment. Our proposed plan will remove impervious surfacing and invasive vegetation while introducing a significant amount of new native plantings that will help improve the ability of the buffer to provide organic matter recruitment.

**Limit Impervious Surfaces (WDFW WMR pg. 112):** The proposed design will eliminate 131 square feet of impervious concrete paving that will be replaced with new native planting areas. The reduction in impervious will increase storm water uptake by native plantings and prevent direct runoff into the canal. This reduction in impervious will help preserve the canal (Lake Washington) water quality and lead to additional native planting areas that will enhance shoreline riparian area habitat.

**Emulate Natural Conditions (WDFW WMR pg. 115):** We are proposing to remove existing impervious concrete paving, as well as invasive vegetation and lawn, in order to re-vegetate with native plants and plant densities typically found in shoreline riparian natural areas in order to restore biological diversity to the shoreline critical area.

Our proposed modifications to the critical area buffer will reduce impervious surfacing by 131 square feet, remove invasive vegetation, retain all mature trees, and introduce almost 1,800 square feet of new native plantings to a typical Newport Shores residential backyard. Those measures will provide a very positive direct impact to the overall shoreline riparian habitat of the buffer area.

The new native plantings we propose should grow out over the edge of the existing bulkhead to create natural defense areas for fish to seek shelter in. These new aquatic habitat areas will create a chain effect for bringing algae eating organisms into the area that can help eliminate PH altering algae and aquatic plants thus improving the overall water quality of the adjacent shoreline.

These direct increases in habitat and water quality on our site can have a positive indirect impact on neighboring sites by bringing in shoreline riparian area wildlife and aquatic animals. We do not anticipate any negative indirect impacts to neighboring sites based on our proposed modifications to the shoreline critical area buffer.

Per the measures outlined in (LUC 20.25H.215) our proposed modification to the critical area buffer will restore and enhance the shoreline riparian area habitat within the buffer. Our proposal avoids the removal of any trees, while eliminating invasive vegetation and impervious surfacing currently existing in the buffer. We are proposing to re-vegetate the areas previously containing impervious surfacing and invasive vegetation with new native plantings that will significantly improve the habitat areas of the buffer.

We are also proposing to remove the existing wooden deck structure currently located in the buffer and replacing it in nearly the identical footprint to avoid disturbing more of the buffer than necessary.

#### **Ongoing Maintenance Practices:**

As part of an overall maintenance plan of the restored plantings in the critical area buffer, the use of pesticides, insecticides, and fertilizers shall be in accordance with the City of Bellevue's "Environmental Best Management Practices". This will help prevent chemicals from reaching Lake Washington and increasing aquatic plant and algae growth which can alter natural PH levels of the water and harm fish and other aquatic animals and plants.

A 5-year monitoring plan will also be in place that assures a 100% survival rate of all restored planting at the 1 year mark from the time of completion, along with a 90% survival rate of all restored plantings at the 3 year mark from the time of completion and an 80% survival rate of all restored plantings at the 5 year mark from the time of completion. Monitoring reports will be submitted to the City of Bellevue at the 1 year anniversary, the 3 year anniversary, and 5 year anniversary of final acceptance. We will also provide photos of the plantings from 3 locations as dictated on our mitigation plan with those monitoring reports. The owners are prepared to replace any dead plants in order to achieve the required survival rates as outlined in the monitoring plan.

These measures will ensure that the mitigation planting will thrive and protect the critical area buffer habitat and water quality conditions after the site has been developed.

#### **Cumulative Impact Assessment:**

With our proposed reduction in impervious surfacing, removal of invasive species, restoration with native plantings within the shoreline critical area buffer, and long term maintenance and monitoring we feel these measures will all help create a cumulative positive impact to the critical area by:

- a. Reducing storm water runoff directly into the canal (Lake Washington)
- b. Providing new riparian habitat for shoreline wildlife and aquatic life
- c. Reduce erosion into the canal by minimizing the sloped lawn area
- d. Eliminate chemical pollutants from traditional maintenance practices from entering the canal and affecting the water quality of the canal (Lake Washington)

- e. Insuring that the restored plantings survive and thrive to continue to provide terrestrial and aquatic habitat to the shoreline critical area

**Functional Lift Analysis:**

<b>Shoreline Buffer Functions</b>	<b>Existing Conditions</b>	<b>Standard Code Application (no impacts)</b>	<b>Proposed Modification (Buffer Modification)</b>	<b>Functional Improvement with proposed modification?</b>
Offer shade and habitat for terrestrial and aquatic wildlife	Bulkhead with Deck structure; impervious concrete paving; lawn and invasive ground cover; Large trees	No change to buffer which remains mostly impervious surfacing with no real shade or habitat benefit other than large trees	Remove impervious concrete; restore area with native plantings; large trees remain	Yes, new native plantings will provide woody debris and organic matter that promote habitat and provide shade for terrestrial and aquatic wildlife
Protect water quality of Lake Washington by filtering pollutants in storm water runoff	Storm water flows off impervious surfacing directly into lake	No change to buffer. Storm water continues to flow unfiltered into Lake Washington	Remove impervious concrete; restore area with native plantings; large trees remain	Yes, removal of impervious surfacing will eliminate storm water flow into Lake, native plantings will help filter storm water
Provide organic material to the food chain	Bulkhead with Deck structure; impervious concrete paving; lawn and invasive ground cover; Large trees	No change to buffer which remains mostly impervious surfacing, lawn and invasive planting that provide minimal organic material to food chain	Remove impervious concrete; restore area with native plantings; large trees remain	Yes, new native plantings will introduce a significant amount of organic matter to the food chain
Help stabilize slopes and riverbanks	Concrete bulkhead with paving and rockeries above: sloped lawn area settling and eroding behind bulkhead	No change to buffer which continues to armor shoreline with bulkhead; lawn area continues to erode behind bulkhead	Bulkhead remains; paving is removed; native plantings help stabilize area above bulkhead; sloped lawn area is retained with rockery and	Yes, bulkhead continues to armor shoreline, new rockery & leveling of lawn area reduces settling and erosion behind bulkhead; native

Shoreline Buffer Functions	Existing Conditions	Standard Code Application (no impacts)	Proposed Modification (Buffer Modification)	Functional Improvement with proposed modification?
			planted with native plants	plantings provide stabilization behind bulkhead and rockery
<b>Net Conditions</b>	Bulkhead with Deck structure; impervious concrete paving; lawn and invasive ground cover; Large trees	No change to buffer condition; Impervious surfacing remains; invasive planting remains; lawn area remains; large trees remain; minimal habitat and shoreline benefit provided	Bulkhead remains; deck structure replaced; impervious concrete removed; restore area with native plantings; large trees remain	Habitat restored with an increase in woody debris to provide shade; filtering of storm water by native plantings; increase in organic material to food chain; stabilized eroding lawn area

**Wildlife Management Plan Standards:**

Based on the fact that the existing shoreline critical area buffer contains no large wood debris or native vegetation and with majority of the buffer dominated by the large deck structure and concrete patios, the current buffer conditions do not provide much, if any, real terrestrial or aquatic habitat for the shoreline. Therefore, there is no evidence of any priority species, as defined by the Washington Department of Fish and Wildlife Priority Habitat and Species List, currently found on the site and no need for a Wildlife Management Plan to protect any species.

**Mitigation and Restoration:**

Our proposed modification to the shoreline critical area buffer is necessary to preserve an existing use already present within the buffer. The entire backyard of the project site is within the 25' critical area buffer for the canal (Lake Washington) with the primary structure of the site being located right on the 25' mark. Therefore, all usable back yard space for the residence is located within the 25' critical area buffer.

Currently there is a 750 SF multi-level wood deck structure that extends from the house to the edge of the bulkhead. The current deck was designed to accommodate a large yacht owned by the previous owner. Therefore the level of the deck sits 3' above the bulkhead right at the waters edge with no railing or barrier. The current owners have two small children and have to keep the kids off the deck for fear of them falling into the canal. There are also 2 concrete patio areas along either side of the deck located right at the edge of the bulkhead. This impervious concrete surfacing extends from the deck to the western edge of the property, and then east about half way to the east edge of the property covering 107 linear feet of the 178 LF of shoreline on the property with deck structure or impervious surfacing. The additional 71 linear feet of shoreline is mostly sloped lawn that is starting to settle and erode behind the bulkhead with about 10' of planting area along the east edge of the property that includes a large Willow tree.

Our proposed modification to the critical area buffer will remove the existing wood deck structure, along with the impervious concrete paving located at the shoreline of the property. We are proposing to re-build the deck in almost the same footprint as the existing deck, but want to remove the portion of the deck right at the edge of the bulkhead and replace it with sand-set paving, that will still allow access to the waterfront, but will not have the drop-off danger that the current deck structure does. The proposed deck footprint will be 8 square feet smaller than the existing one, but moving that portion that was right at the shoreline edge away and back against the house, as far away from the shoreline as possible. We are also proposing to add a 30" tall rockery along to help level out the sloping lawn area that is currently settling and eroding behind the existing bulkhead. The area above and below the rockery will be planted with new native plantings to help stabilize those areas and increase the buffer habitat and will also contain a 2' wide sand set concrete paver pathway for maintenance and to continue to allow the owners access to their bulkhead.

Upon completion of our proposed buffer modification, the buffer area will go from containing 655 SF of impervious surfacing and 1,405 SF of total disturbed area to 352 SF of impervious surfacing and only 1,038 SF of total disturbed area. The proposed project will also result in only 33 LF of the existing shoreline edge being disturbed as opposed to 107 LF of shoreline disturbance with the existing configuration.

As part of the mitigation for the modification of the shoreline critical area buffer, we are proposing to restore 1,780 SF of the buffer with new native plantings. This also includes restoring 74 linear feet of the shoreline edge back to native planting from its current condition as impervious surfacing and built deck structure. The new native plantings will: help restore the critical area buffer habitat with an increase in woody debris to provide shade; provide filtering of onsite storm water; increase the amount organic material to food chain; along with helping stabilize the existing slope behind bulkhead.

Please see the Restoration Plan (Sheet L-3) associated with the Critical Area Land Use Permit for this property for plant species, quantities, sizes, locations, and details regarding the restoration planting of the buffer. This plan will also show where existing lawn and planting areas that may be temporarily disturbed during the construction of the project will be restored to better than existing conditions.

We are prepared to provide a 5-year maintenance and monitoring plan along with a maintenance assurance device to ensure that the restoration of the buffer is completed, maintained, and financially funded in order to fully succeed and benefit the shoreline critical area. The 5-year monitoring plan would assure a 100% survival rate of all restored planting at the 1 year mark from the time of completion, a 90% survival rate of all restored plantings at the 3 year mark from the time of completion, and an 80% survival rate of all restored plantings at the 5 year mark from the time of completion. This information would be submitted to the City of Bellevue in the form of monitoring reports at the 1 year, 3 year, and 5 year anniversaries from time of acceptance.

Overall, our project is looking to replace the existing deck structure currently located in the 25' critical area buffer with a new, safer structure that is set further back from the shoreline critical area. We propose to remove impervious surfacing, invasive species, while re-vegetating the site with native plantings. We plan to complete the project in one phase and follow all requirements outlined by the Land use code while also following the City of Bellevue BMP's to impact the site as little as possible.

Sincerely,

Chad Wichers  
Principal landscape Architect  
Studio 342 Landscape Architecture, LLC