DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 110th Ave NE
BELLEVUE, WA 98009-9012

# DETERMINATION OF NON-SIGNIFICANCE

**PROPONENT:** Clover McIngalls, The Watershed Company

**LOCATION OF PROPOSAL:** 624 131st Avenue NE

**DESCRIPTION OF PROPOSAL:** Removal of an existing wooden bridge over Kelsey Creek and construction of a new wooden bridge in the same location to provide access from a private residence to the Glendale Golf Course.

**FILE NUMBERS:** 17-116664-LO **PLANNER:** Reilly Pittman

The Environmental Coordinator of the City of Bellevue has determined that this proposal does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and information filed with the Land Use Division of the Development Services Department. This information is available to the public on request.

☐ There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on _____.

☒ This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on **10/12/2017**

☐ This DNS is issued under WAC 197-11-340(2) and is subject to a 14-day comment period from the date below. Comments must be submitted by 5 p.m. on _____. This DNS is also subject to appeal. A written appeal must be filed in the City Clerk's Office by 5:00 p.m. on _____.

This DNS may be withdrawn at any time if the proposal is modified so as to have significant adverse environmental impacts; if there is significant new information indicating a proposals probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project): or if the DNS was procured by misrepresentation or lack of material disclosure.

Environmental Coordinator
Carol V. Helland

**9/28/2017**
Date

OTHERS TO RECEIVE THIS DOCUMENT:
☒ State Department of Fish and Wildlife / Stewart.Reinbold@dfw.gov; Christa.Heller@dfw.wa.gov;
☒ State Department of Ecology, Shoreline Planner N.W. Region / Jobu461@ecy.wa.gov; sepaunit@ecy.wa.gov
☒ Army Corps of Engineers Susan.M.Powell@nws02.usace.army.mil
☒ Attorney General ecyolyef@atg.wa.gov
☒ Muckleshoot Indian Tribe Karen.Walter@muckleshoot.nsn.us; Fisheries.fileroom@muckleshoot.nsn.us

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

| | |
|---|---|
| **Proposal Name:** | Morgan Residence Bridge |
| **Proposal Address:** | 624 131St Avenue NE |
| **Proposal Description:** | Land Use review of a Critical Areas Land Use Permit to replace an existing private bridge for pedestrian and golf cart access from a private property to the Glendale Golf Course |
| **File Number:** | 17-116664-LO |
| **Applicant:** | Clover McIngalls, The Watershed Company |
| **Decisions Included:** | Critical Areas Land Use Permit (Process II. 20.30P) |
| **Planner:** | Reilly Pittman, Land Use Planner |
| **State Environmental Policy Act Threshold Determination:** | **Determination of Non-Significance** |

**Carol V. Helland, Environmental Coordinator**
**Development Services Department**

| | |
|---|---|
| **Director's Decision:** | **Approval with Conditions**<br>Michael A. Brennan, Director<br>Development Services Department |

By: _____
Elizabeth Stead, Land Use Director

| | |
|---|---|
| **Application Date:** | June 26, 2017 |
| **Notice of Application Publication:** | August 10, 2017 |
| **Decision Publication Date:** | September 28, 2017 |
| **Appeal Deadline:** | October 12, 2017 |

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.

## CONTENTS



**Attachments**

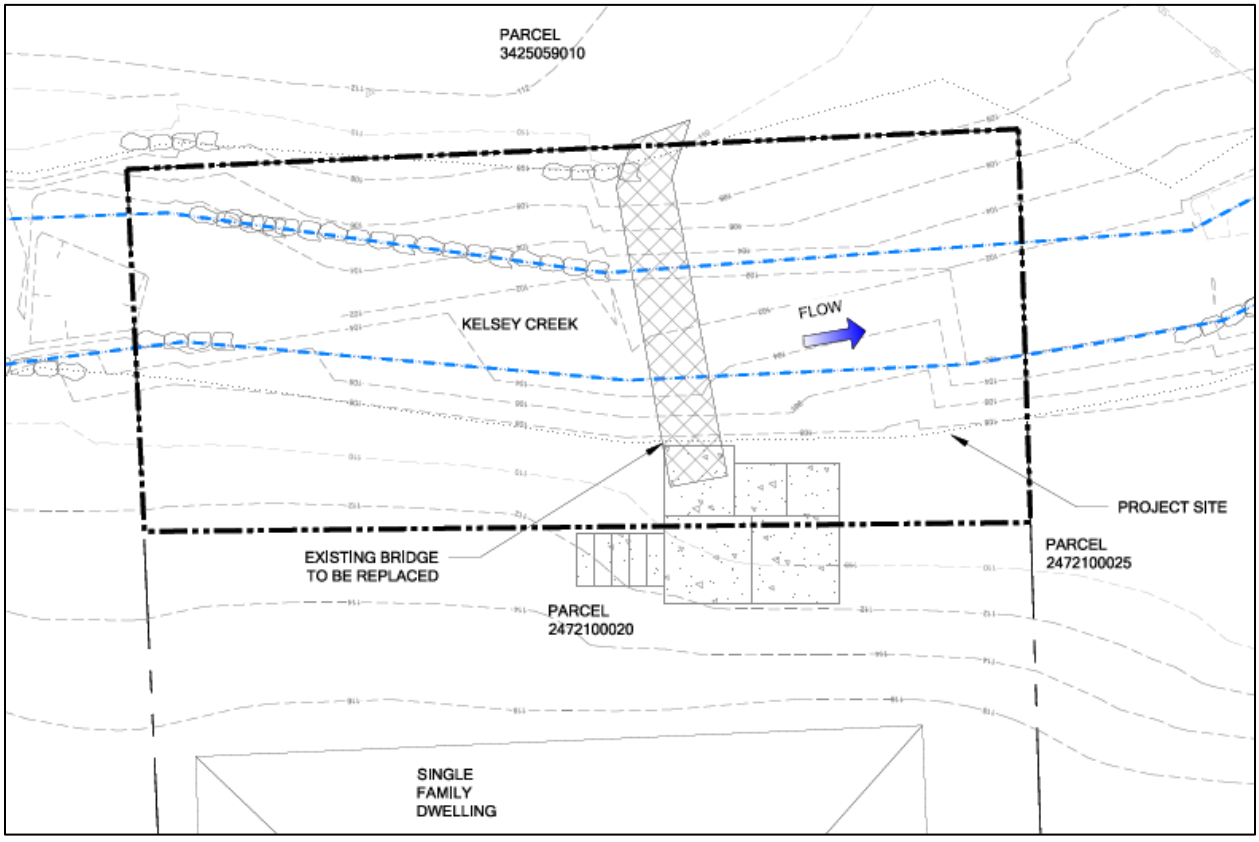
1. Project Plans – Enclosed
2. Critical Areas Narrative – In File
3. Public Comments and Utility Recommendations – In File
4. Communication, SEPA Checklist, Geotech Report and Application Materials – In File

## I. Proposal Description

The proposal is to replace an existing bridge that crosses over Kelsey Creek from a private residence to the Glendale Golf Course. The bridge provides pedestrian and golf cart access to the golf course from the residence. A wooden bridge is proposed to replace the existing bridge and be approximately forty feet long by six and a half feet wide covering 250 square feet, matching the existing bridge as to location and size, in order to allow for golf cart access. New abutments will be installed and supported by spread footings behind the existing shoreline armoring and above the floodplain of Kelsey Creek.

The proposal requires a Critical Areas Land Use Permit to allow a new bridge over the stream which is allowed per LUC 20.25H.055 provided there is no technically feasible alternative, that all performance standards are met, and that all temporary and permanent disturbance is restore and mitigated. See figure 1 below for project proposal.

**Figure 1**




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

### A. Site Description

The project is located at 624 131st Avenue NE in the Wilburton subarea. The existing bridge

extends from the subject private property to the east over Kelsey Creek to reach the Glendale Golf Course. Kelsey Creek is a Type-F stream with a 100-year floodplain. The stream channel in vicinity of this project has been improved for fish habitat and erosion in the past as part of City of Bellevue projects on Kelsey Creek. See Figure 2 below for work area and location.

**Figure 2**


**B. Zoning**

The subject site is zoned R-3.5 and surrounding properties are zoned single-family residential. The proposal does not affect zoning or change the use of the site as a single-family residence.

**C. Land Use Context**

The site has a Comprehensive Plan designation of SF-M which is Single-Family Medium Density. The proposal does not change the land use designation.

**D. Critical Areas Function and Value, Regulations**

**i. Streams and Riparian Areas**

Most of the elements necessary for a healthy aquatic environment rely on processes sustained by dynamic interaction between the stream and the adjacent riparian area (Naiman et al., 1992). Riparian vegetation in floodplains and along stream banks provides a buffer to help mitigate the impacts of urbanization (Finkenbine et al., 2000 in Bolton and Shellberg, 2001). Riparian areas support healthy stream conditions.

Riparian vegetation, particularly forested riparian areas, affect water temperature by providing shade to reduce solar exposure and regulate high ambient air temperatures, slowing or preventing increases in water temperature (Brazier and Brown, 1973; Corbett and Lynch, 1985).

Upland and wetland riparian areas retain sediments, nutrients, pesticides, pathogens, and other pollutants that may be present in runoff, protecting water quality in streams (Ecology, 2001; City of Portland 2001). The roots of riparian plants also hold soil and prevent erosion and sedimentation that may affect spawning success or other behaviors, such as feeding.

Both upland and wetland riparian areas reduce the effects of flood flows. Riparian areas and wetlands reduce and desynchronize peak crests and flow rates of floods (Novitzki, 1979; Verry and Boelter, 1979 in Mitsch and Gosselink, 1993). Upland and wetland areas can infiltrate floodflows, which in turn, are released to the stream as baseflow

Stream riparian areas, or buffers, can be a significant factor in determining the quality of wildlife habitat. For example, buffers comprised of native vegetation with multi-canopy structure, snags, and down logs provide habitat for the greatest range of wildlife species (McMillan, 2000). Vegetated riparian areas also provide a source of large woody debris that helps create and maintain diverse in-stream habitat, as well as create woody debris jams that store sediments and moderate flood velocities.

Sparsely vegetated or vegetated buffers with non-native species may not perform the needed functions of stream buffers. In cases where the buffer is not well vegetated, it is necessary to either increase the buffer width or require that the standard buffer width be restored or revegetated (May 2003). Until the newly planted buffer is established the near term goals for buffer functions may not be attained.

Riparian areas often have shallow groundwater tables, as well as areas where groundwater and surface waters interact. Groundwater flows out of riparian wetlands, seeps, and springs to support stream baseflows. Surface water that flows into riparian areas during floods or as direct precipitation infiltrates into groundwater in riparian areas and is stored for later discharge to the stream (Ecology, 2001; City of Portland, 2001).

**ii. Floodplain**

The value of floodplains can be described in terms of both the hydrologic and ecological functions that they provide. Flooding of occurs when either runoff exceeds the capacity of rivers and streams to convey water within their banks, or when engineered stormwater systems become overwhelmed. Studies have linked

urbanization with increased peak discharge and channel degradation (Dunne and Leopold 1978; Booth and Jackson 1997; Konrad 2000). Floodplains diminish the effects of urbanization by temporarily storing water and mediating flow to downstream reaches. The capacity of a floodplain to buffer upstream fluctuations in discharge may vary according to valley confinement, gradient, local relief, and flow resistance provided by vegetation. Development within the floodplain can dramatically affect the storage capacity of a floodplain, impact the hydrologic regime of a basin and present a risk to public health and safety and to property and infrastructure.

**iii. Habitat**

Urbanization, the increase in human settlement density and associated intensification of land use, has a profound and lasting effect on the natural environment and wildlife habitat (McKinney 2002, Blair 2004, Marzluff 2005, Munns 2006), is a major cause of native species local extinctions (Czech et al 2000), and is likely to become the primary cause of extinctions in the coming century (Marzluff et al. 2001a). Cities are typically located along rivers, on coastlines, or near large bodies of water. The associated floodplains and riparian systems make up a relatively small percentage of land cover in the western United States, yet they provide habitat for rich wildlife communities (Knopf et al. 1988), which in turn provide a source for urban habitat patches or reserves. Consequently, urban areas can support rich wildlife communities. In fact, species richness peaks for some groups, including songbirds, at an intermediate level of development (Blair 1999, Marzluff 2005).Protected wild areas alone cannot be depended on to conserve wildlife species. Impacts from catastrophic events, environmental changes, and evolutionary processes (genetic drift, inbreeding, colonization) can be magnified when a taxonomic group or unit is confined to a specific area, and no one area or group of areas is likely to support the biological processes necessary to maintain biodiversity over a range of geographic scales (Shaughnessy and O'Neil 2001). As well, typological approaches to taxonomy or the use of indicators present the risk that evolutionary potential will be lost when depending on reserves for preservation (Rojas 2007). Urban habitat is a vital link in the process of wildlife conservation in the U.S.

## III. Consistency with Code Requirements:

### A. Zoning District Dimensional Requirements LUC 20.20.010:

The proposed bridge facilitates access and is an in-kind replacement consistent with zoning requirements. A building permit is required for the structure. **See Section X for a related condition of approval.**

### B. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes standards and procedures that apply to construction of improvements on any site which

contains in whole or in part any portion designated as critical area or critical area buffer. The proposed bridge replacement will cause temporary disturbance to the stream banks for construction and will permanently cross over the stream. The proposal is subject to the following code requirements.

**i. Consistency with LUC 20.25H.055.C.2.a**

New or expanded facilities and systems are allowed within the critical area or critical area buffer only where no technically feasible alternative with less impact on the critical area or critical area buffer exists. A determination of technically feasible alternatives will consider:

1. **The location of existing infrastructure;**
   The project replaces an existing bridge in the same place it is currently located and is used to reach the golf course adjacent to the property. The bridge is proposed in the same location in order to avoid causing new impacts.

2. **The function or objective of the proposed new or expanded facility or system;**
   The objective of the bridge is to maintain pedestrian and golf cart access to the golf course. The proposed bridge maintains the same amount of over stream coverage.

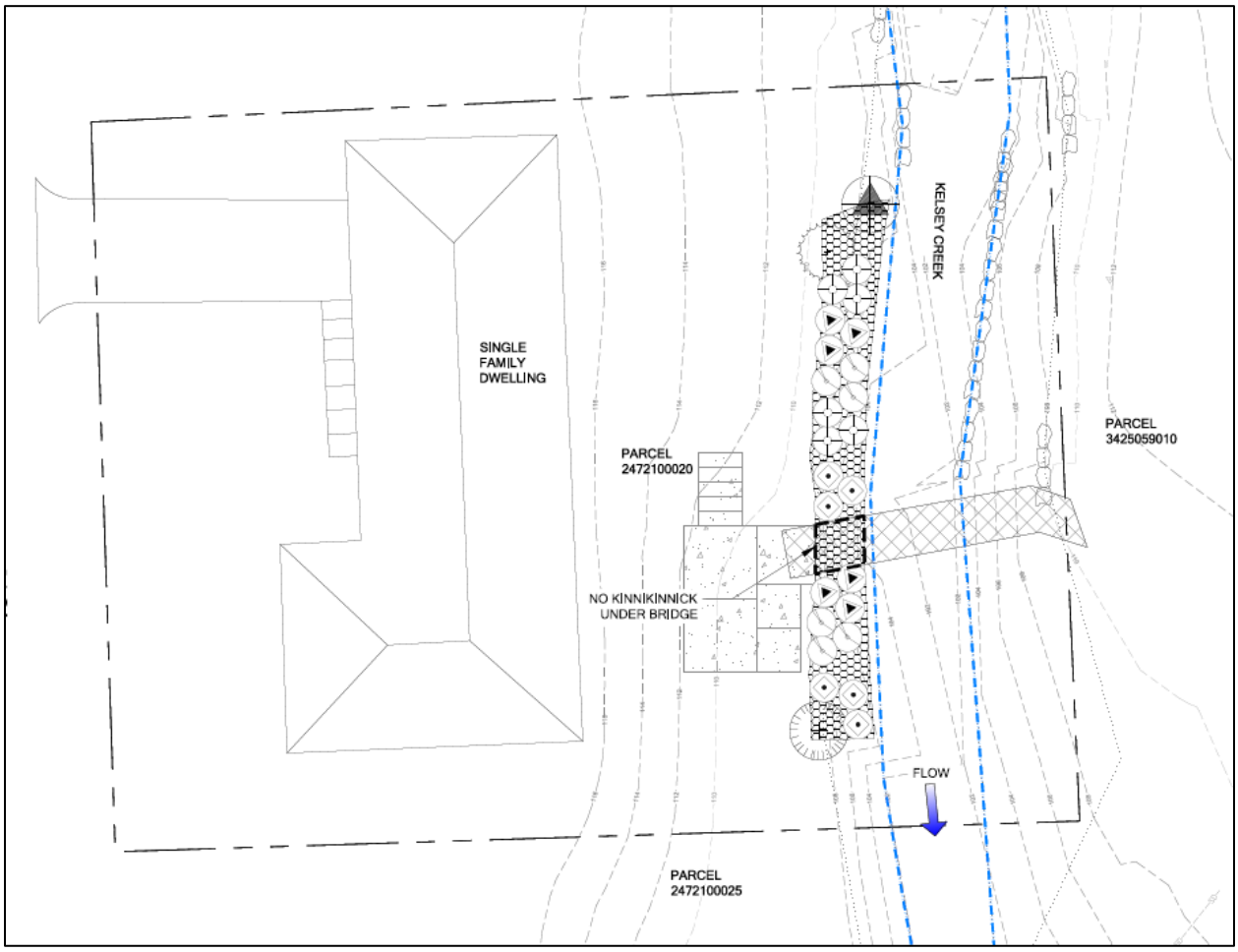
3. **Demonstration that no alternative location or configuration outside of the critical area or critical area buffer achieves the stated function or objective, including construction of new or expanded facilities or systems outside of the critical area;**
   The proposed location utilizes existing bank reinforcement and crossing at this point is the narrowest point between the banks. The proposed configuration maintains the amount of existing disturbance.

4. **Whether the cost of avoiding disturbance is substantially disproportionate as compared to the environmental impact of proposed disturbance; and**
   The replacement of the existing bridge in the same location maintains the existing extent of impact. Removing the bridge would remove the existing direct access to the golf course and require access to the golf course be from public roads. While this is not an inconvenience, the bridge proposed is a replacement in the same footprint which is not increasing impact. Removing or relocating the bridge would be a disproportionate cost rather than keeping the bridge in the same location.

5. **The ability of both permanent and temporary disturbance to be mitigated.**
   All temporary impacts from construction are proposed to be restored with planting and the plans include new mitigation planting along the stream bank. The project will construct a bridge with 120 square feet of stream overwater impact and 143 square feet of stream buffer impact. The plan proposes to install 526 square feet of mitigation

planting to restore and mitigate all impacts. See the figure 3 below and attachment 1 for restoration plans.

**Figure 3**




**ii. Consistency with LUC 20.25H.055.C.2.b**

If the applicant demonstrates that no technically feasible alternative with less impact on the critical area or critical area buffer exists, then the applicant shall comply with the following**:**

1. **Location and design shall result in the least impacts on the critical area or critical area buffer.**
   The proposal maintains the area of permanent disturbance and has the least impact on the stream.

2. **Disturbance of the critical area and critical area buffer, including disturbance of vegetation and soils, shall be minimized.**

Disturbance is minimized to the bridge landings and construction of bridge supports which are within the footprint of the bridge. No vegetation is impacted other than invasive ivy and blackberry. All areas of temporary disturbance are proposed to be restored as well as mitigation provided.

3. **Disturbance shall not occur in habitat used for salmonid rearing or spawning or by any species of local importance unless no other technically feasible location exists.**
   The bridge construction is not physically disturbing Kelsey Creek as it is not in the stream, and is located above top-of-bank, outside the one hundred year floodplain. The new bridge is constructed to meet WDFW requirements per LUC 20.25H.055.C.3.e. A copy of the approved HPA permit is required to be submitted to the City and any changes required by WDFW incorporated into the building permit plans. **See Section X for a related condition of approval.**

4. **Any crossing over of a wetland or stream shall be designed to minimize critical area and critical area buffer coverage and critical area and critical area buffer disturbance, for example by use of bridge, boring, or open cut and perpendicular crossings, and shall be the minimum width necessary to accommodate the intended function or objective; provided, that the Director may require that the facility be designed to accommodate additional facilities where the likelihood of additional facilities exists, and one consolidated corridor would result in fewer impacts to the critical area or critical area buffer than multiple intrusions into the critical area or critical area buffer.**
   The proposed crossing has been designed to meet WDFW water crossing design guidelines for bridges. The bridge crossing is perpendicular to the stream and is the minimum width needed to accommodate a golf cart. The bridge is above the flood elevation and spans across the stream with no structure below top-of-bank. The stream crosses at the narrowest point at the existing location.

5. **All work shall be consistent with applicable City of Bellevue codes and standards.**
   The proposed project will comply with City of Bellevue codes and standards.

6. **The facility or system shall not have a significant adverse impact on overall aquatic area flow peaks, duration or volume or flood storage capacity, or hydroperiod.**
   The project will not impact flows and is proposed above the flood elevation in order to have clearance and not reduce capacity. No structure is proposed below the top-of-bank.

7. **Associated parking and other support functions, including, for example,**

**mechanical equipment and maintenance sheds, must be located outside critical area or critical area buffer except where no feasible alternative exists.**
This is not applicable to the project as there are no support functions proposed.

8. **Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.**
The proposed project will restore and mitigate an area of 526 square feet which is a 2:1 ration with the impact proposed. The planting plant can be found as attachment 1. **See Section X for a related condition of approval.**

**iii. Consistency With LUC 20.25H.080**

Development on sites with a type S or F stream or associated critical area buffer shall incorporate the following performance standards in design of the development, as applicable

1. **Lights shall be directed away from the stream.**
No lighting is proposed.

2. **Activity that generates noise such as parking lots, generators, and residential uses, shall be located away from the stream, or any noise shall be minimized through use of design and insulation techniques.**
Construction noise will be temporary and no long-term noise will be generated by the proposed bridge. The project will be required to meet construction noise requirements in BCC 9.18. **See Section X for a related condition of approval.**

3. **Toxic runoff from new impervious area shall be routed away from the stream.**
No new surfaces are created and no toxic runoff will be generated.

4. **Treated water may be allowed to enter the stream critical area buffer.**
The project will not generate water that needs to be treated.

5. **The outer edge of the stream critical area buffer shall be planted with dense vegetation to limit pet or human use.**
The western stream bank will be cleared of existing ivy and blackberry and restored with native vegetation per the submitted planting plant as attachment 1.

6. **Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream critical area buffer shall be in accordance with the City of Bellevue's "Environmental Best Management Practices", now or as hereafter amended. S60-Wilburton Sewer Capacity Upgrade Project 29 City of Bellevue - Critical Areas Report**

The project will comply with the BMPs.

**iv. Consistency with LUC 20.25H.180**

No work is within the floodplain and the proposed bridge has at least three inches of freeboard above the base flood elevation.

## IV. Public Notice and Comment

| | |
|---|---|
| Application Date: | June 26, 2017 |
| Public Notice (500 feet): | August 10, 2017 |
| Minimum Comment Period: | August 24, 2017 |

The Notice of Application for this project was published in the City of Bellevue Weekly Permit Bulletin and the Seattle Times on August 10, 2017. Notice was also mailed to property owners within 500 feet of the project site. Comments were received from Karen Walter with the Muckleshoot Tribe concerning coordination to prevent conflicts between this project and nearby City of Bellevue Utility projects to replace the culvert under NE 8th Street that carries Kelsey Creek and bank erosion projects along Kelsey Creek. Comments also concerned the removal of knotweed. This project proposes to replace the existing bridge in the same location and alignment and does not impact the stream channel. The Utility Department has reviewed the proposal and did not find any conflicts with proposed City projects. Recommendations were provided by Utilities concerning the design of mitigation and erosion controls to ensure the plan would be successful in flood conditions. The plan proposes to remove invasive species and replant with native vegetation. Knotweed removal has been done by the City along the Kelsey corridor but is not proposed by the applicant as mitigation. As the applicant has no ability to mitigate offsite the removal of knotweed would only be temporary as offsite weed will grow back onto the site. **See Section X for a related condition of approval.**

## 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.

## VI. State Environmental Policy Act (SEPA)

The environmental review indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The Environmental Checklist submitted with the application adequately discloses expected environmental impacts associated with the project. The City codes and requirements, including the Clear and Grade Code, Utility Code, Land Use Code, Noise Ordinance, Building Code and other construction codes are expected to mitigate potential environmental impacts. Therefore, issuance of a Determination of Non-

Significance (DNS) is the appropriate threshold determination under the State Environmental Policy Act (SEPA) requirements.

**A. Earth, Air, and Water**

The only earth disturbance anticipated will be temporary resulting from construction of bridge supports and landing. No work is proposed in the water. Any erosion potential would be temporary and mitigated by required best management practices for erosion control in conformance with the City's Clearing and Grading Code BCC 23.76.

**B. Animals**

Chinook, steelhead, and potentially bull trout are found in Kelsey Creek and are both listed as Threatened under the Endangered Species Act. No impact to these species is anticipated given no work is proposed in the water.

**C. Plants**

No trees or other significant vegetation are proposed to be removed. Invasive ivy and blackberry are proposed to be removed and the area replanted with native vegetation as mitigate for the proposal. See attachment 1 for proposed mitigation planting.

**D. Noise**

The project is adjacent to primarily commercial properties but is near some residential properties whose residents are most sensitive to disturbance from noise during evening, late night and weekend hours when they are likely to be at home. Construction noise will be limited by the City's Noise Ordinance (Chapter 9.18 BCC) which regulates construction hours and noise levels. **See Section X for a related condition of approval.**

## VII. Changes to Proposal Due to Staff Review

No changes were requested by staff.

## VIII. Decision Criteria

**A. 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;**
   The applicant must obtain a building permit. **See Section X for a related condition of approval.**

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;**

The project utilizes the best available construction techniques to have the least impact on critical areas and buffers as possible. The proposed bridge is to be built in the same location as the existing bridge which limits new disturbance. The bridge footings are located completely above the stream top of bank and floodplain. No work is proposed within the stream and the bridge has clearance above the floodplain. 523 square feet of mitigation planting is proposed along the stream bank which removes invasive vegetation. The plan is required to be maintained and monitored for five years following installation. A maintenance and monitoring surety is required. **See Section X for a related condition of approval.**

3. **The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;**

   As discussed in Section III of this report performance standards will be met.

4. **The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;**

   The proposed project does not affect public facilities.

5. **The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and**

   523 square feet of mitigation planting is proposed along the stream bank. See attachment 1 for planting plan. **See Section X for a related condition of approval.**

6. **The proposal complies with other applicable requirements of this code.**

   As discussed in this report, the proposal complies with all other applicable requirements of the Land Use Code.

## IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, SEPA, City Code and Standard compliance reviews, the Director of Development Services Department does hereby **approve with conditions** the proposal to construct a bridge spanning Kelsey Creek that replaces an existing bridge. **A Building Permit is required and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.**

**Note- Expiration of Approval of Critical Areas Land Use Permit:** 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 clearing and grading permit or other necessary development permits within

one year of the effective date of the approval.

## X. 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 | Janney Gwo, 425-452-56190 |
| 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:** A building permit is required for the bridge structure. Plans submitted as part of any future permit application shall be consistent with the activity permitted under this approval.

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

2. **Obtain all Other Applicable State and/or Federal Permits:** Before work can proceed, all required federal and state permits and approvals must be obtained by the applicant. A copy of the approved Hydraulic Project Approval (HPA) issued by the Washington State Department of Fish and Wildlife shall be submitted to the City of Bellevue, prior to beginning construction.

   Authority: Land Use Code 20.25H.080
   Reviewer: Reilly Pittman, Development Services Department

3. **Conceptual Mitigation Plan:** The mitigation plans submitted are approved as conceptual. A final mitigation plan is required as part of the building permit to address Utility Department recommendations and to ensure all disturbance is restored including any disturbance on the east stream bank.

   Authority: Land Use Code 20.30P.140; 20.25H.220
   Reviewer: Reilly Pittman, Development Services Department

4. **Maintenance and Monitoring:** The maintenance and monitoring plan proposed in attachment 1 is required to be carried out. A copy of the plan is required to be submitted with the building permit. Annual monitoring reports are to be submitted to Land Use each

of the five years. The reports, along with a copy of the planting plan, can be sent to Reilly Pittman at rpittman@bellevuewa.gov or to the address below:

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

Authority: Land Use Code 20.30P.140; 20.25H.220
Reviewer: Reilly Pittman, Development Services Department

5. **Maintenance and Monitoring Surety:** A financial surety is required to be submitted based on 100 percent of the cost to maintain and monitor the plants for five years. A cost estimate is required to be provided under the building permit. A financial surety is required to be posted prior to building permit issuance. Release of the surety is contingent upon a final inspection of the planting by Land Use Staff that finds the maintenance and monitoring plan was successful.

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

6. **Utilities Recommendations:** The recommendations provided by the Utilities Department should be incorporated into the project design or reasons provided as to why they are not needed. Changes include larger plant sizes or plant anchoring, coir netting and log anchoring, and disturbance on the east stream bank. These changes must be made to the submitted mitigation plan under the building permit.

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

# MORGAN BRIDGE REPLACEMENT

## SHEET INDEX

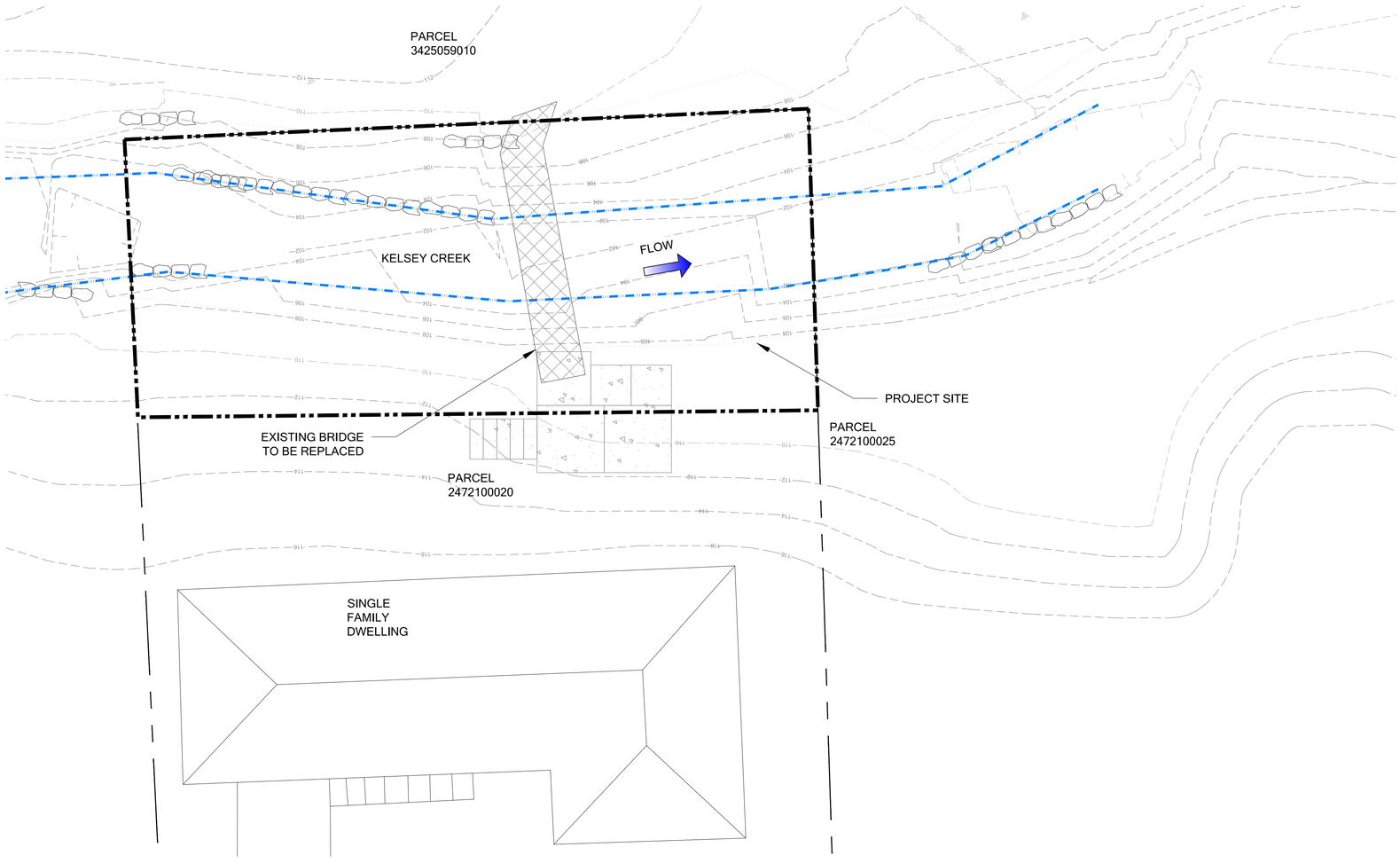


## LEGEND

- KELSEY CREEK OHWM (APPROX.)
- PROPERTY BOUNDARY
- EXISTING BRIDGE

## NOTES

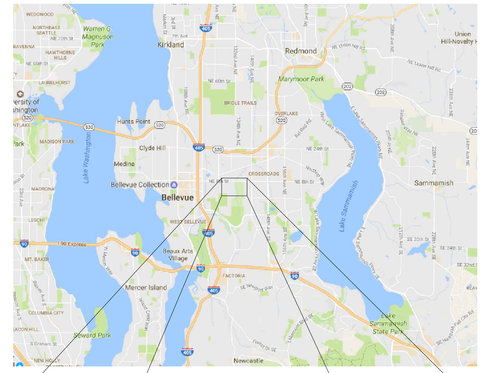
1. THE ENTIRE PROJECT AREA IS WITHIN A STREAM BUFFER. THEREFORE NO BUFFERS ARE SHOWN ON THIS PLAN.
2. SURVEY RECEIVED FROM CLIENT ON 03.03.2017.
3. STREAM OHWM IS APPROXIMATED BASED ON SURVEY.

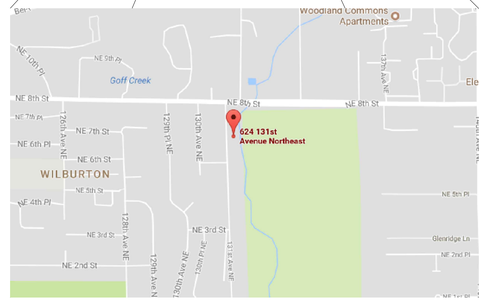



## EXISTING CONDITIONS

SCALE 1:10 WHEN PRINTED AT 22X34

0' 5' 10' 20' 40'




## VICINITY MAPS

Know what's **below.** **Call** before you dig.




THE WATERSHED COMPANY

750 Sixth Street South
Kirkland WA 98033

p 425.822.5242
www.watershedco.com

*Science & Design*


MORGAN BRIDGE REPLACEMENT
MITIGATION PLAN
PREPARED FOR: VIC MORGAN
PARCEL #: 2472100020
624 131ST AVE NE
BELLEVUE, WA 98005

SUBMITTALS & REVISIONS

| NO. | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 1 | 6-22-2017 | REVIEW SET | LJM |

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: KB
DESIGNED: LM
DRAFTED: LM
CHECKED: MF

JOB NUMBER:
170236

SHEET NUMBER:
W1 OF 7

FILENAME: 170236_KELSEY_CREEK_MORGAN_MITIGATION.DWG
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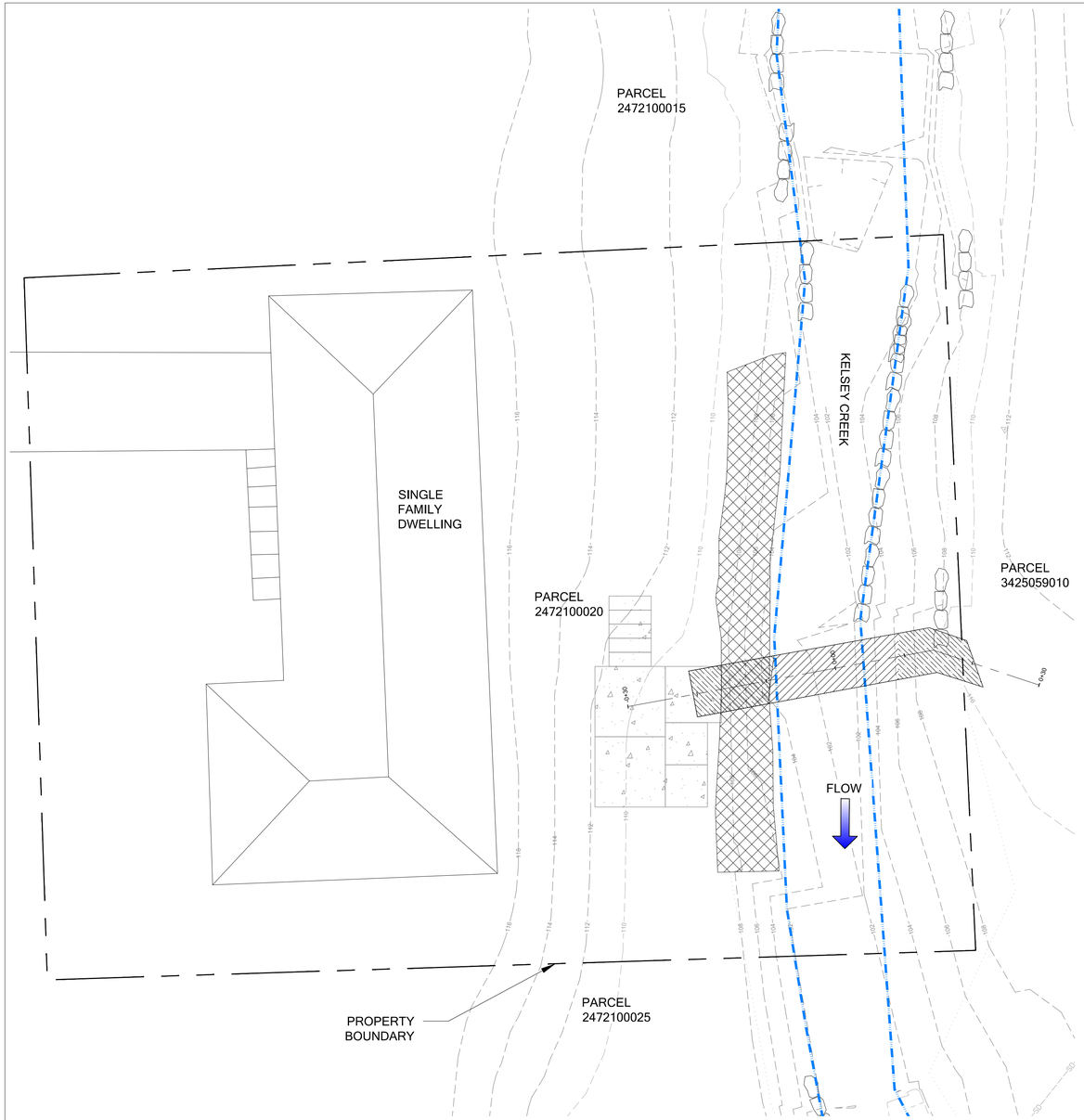
DATE: 6/22/2017

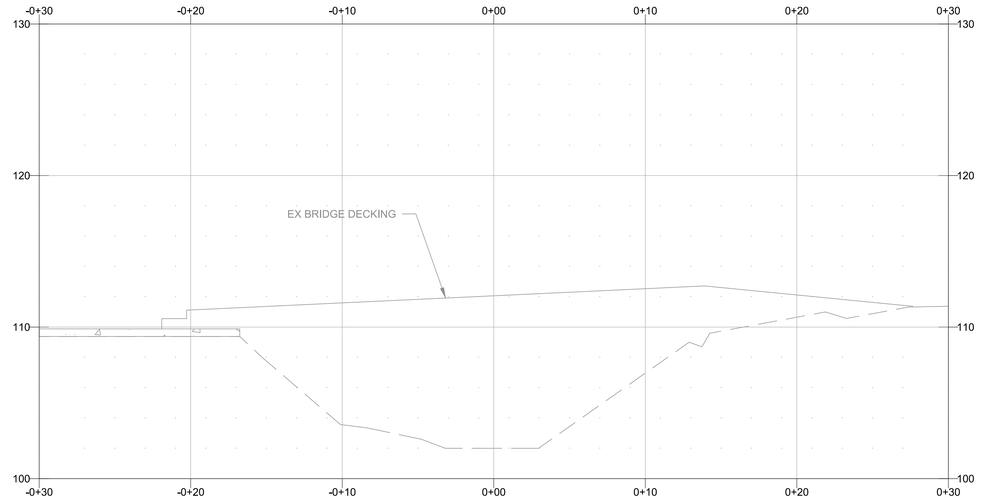



## LEGEND

- KELSEY CREEK OHWM
- PROPERTY BOUNDARY
- MITIGATION PLANTING AREA (526 SQ. FT)
- STREAM OVERWATER IMPACTS (120 SF)
- STREAM BUFFER IMPACTS (143 SF)

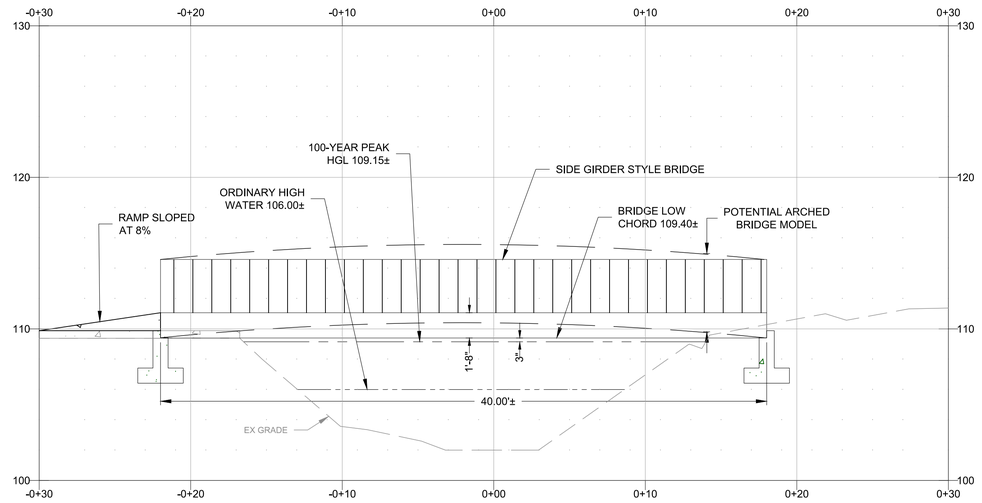
## NOTES

1. IMPACTS MITIGATED AT A 2:1 RATIO




1 EXISTING BRIDGE PROFILE - LOOKING UPSTREAM

Scale: 1:10




2 PROPOSED BRIDGE PROFILE - LOOKING UPSTREAM

Scale: 1:10

# PROPOSED IMPROVEMENTS SITE PLAN

SCALE 1:10

0' 5' 10' 20' 40'

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Kirkland WA 98033
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# MORGAN BRIDGE REPLACEMENT

MITIGATION PLAN
PREPARED FOR: VIC MORGAN
PARCEL #: 2472100020
624 131ST AVE NE
BELLEVUE, WA 98005

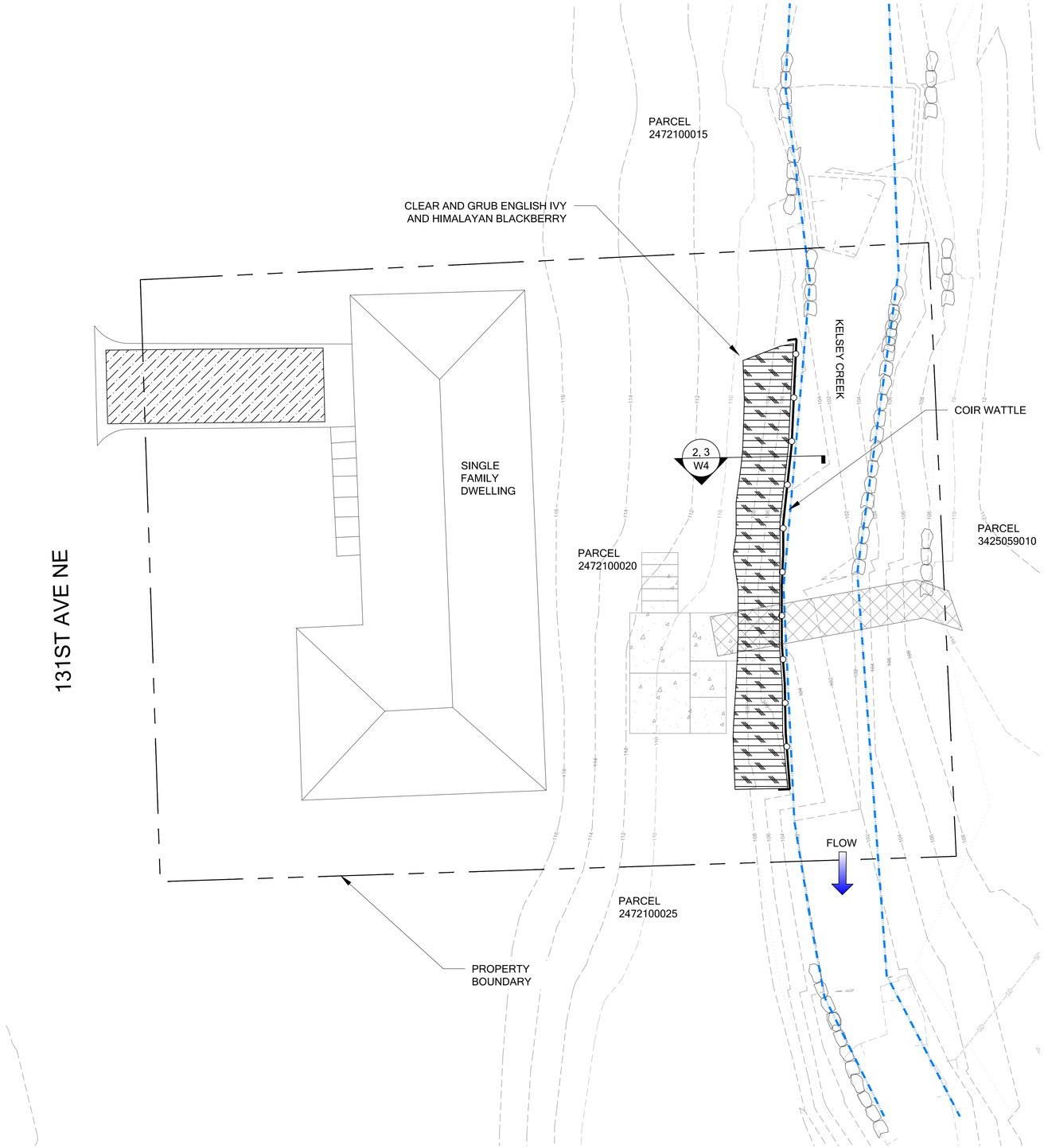
SUBMITTALS & REVISIONS

| NO. | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 1 | 6-22-2017 | REVIEW SET | LJM |

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

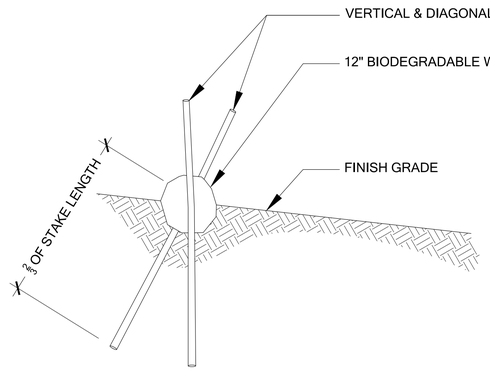
PROJECT MANAGER: KB
DESIGNED: LM
DRAFTED: LM
CHECKED: MF
JOB NUMBER:
170236
SHEET NUMBER:
W2 OF 7

DATE 6/22/2017 | PRINTED BY LOGAN MCCLISH | FILENAME 170236_KELSEY_CREEK_MORGAN_MITIGATION.DWG




## LEGEND

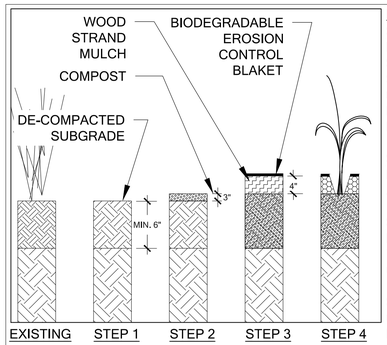
- KELSEY CREEK OHWM
- PROPERTY BOUNDARY
- COIR FABRIC (550 SQ. FT)
- COIR WATTLE (85 LF)
- STAGING AND ACCESS AREA
- EXISTING BRIDGE TO BE REPLACED (263 SQ. FT)




NOTES:
1. INSTALL UPRIGHT & DIAGONAL STAKE A MIN. OF 2/3 INTO SOIL
3. PACK SOIL INTO WATTLE SPACES, INSURE THAT 1/2 OF WATTLE IS BURIED
4. FIRM UP SOIL AROUND INSTALLED STAKE AND BUNDLE

1 WOOD STAKED BIODEGRADABLE WATTLE

Scale: NTS




PLANTING AREA PREPARATION

STEP 1
REMOVE INVASIVE SPECIES. COMPACTED SOILS OUTSIDE OF FORESTED AREAS SHALL BE DE-COMPACTED TO A DEPTH OF 6". CLEARING AND GRUBBING WITHIN ANY NATIVE PLANT ROOT ZONE SHALL BE DONE BY HAND.

STEP 2
PLACE TWO (2) INCHES COMPOST AND AMEND WITH DE-COMPACTED TOPSOIL

STEP 3
INSTALL WOOD STRAND MULCH 4" DEEP. THEN PLACE BIODEGRAABLE EROSION CONTROL BLANKET OVER THE TOP.

STEP 4
CUT "X" SLITS IN BIODEGRADABLE EROSION CONTROL BLAKET AND INSTALL PLANTS. SEE PLANTING PLAN SHEET W-08.

NATIVE PLANTINGS SOIL PREP
SEQUENCE OF WORK - NOT TO SCALE

# TESC AND SITE PREPARATION PLAN

SCALE 1:10

0' 5' 10' 20' 40'

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SHEET NUMBER:
W3 OF 7

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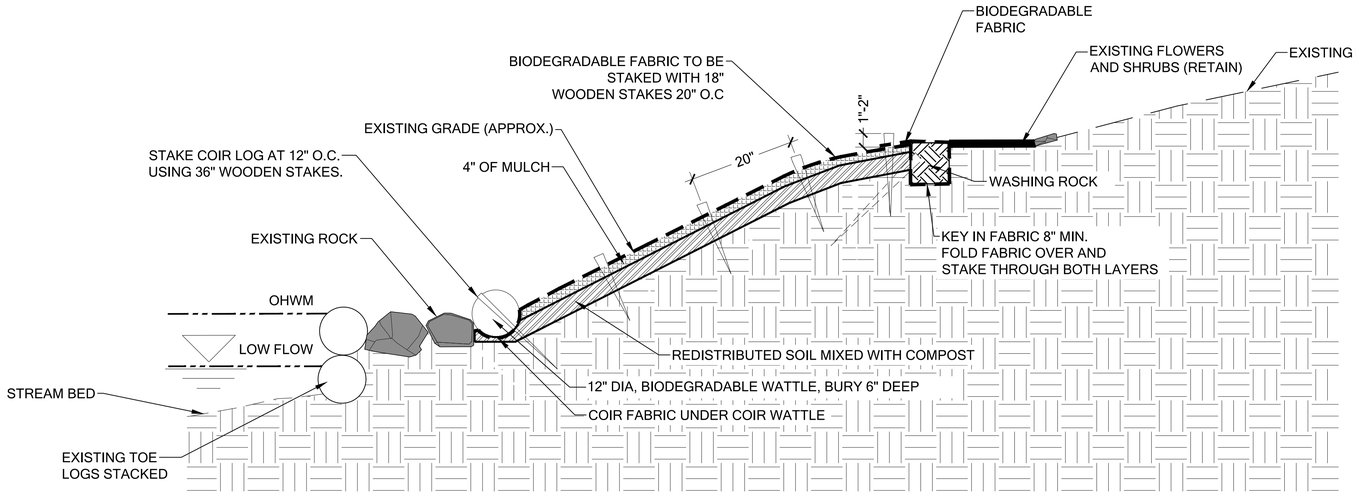
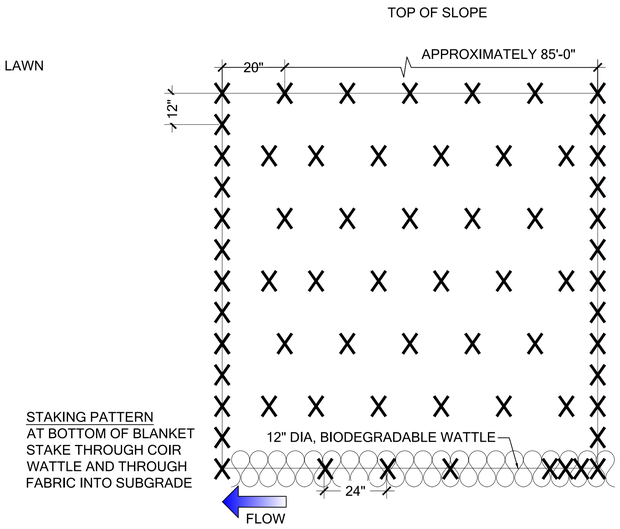


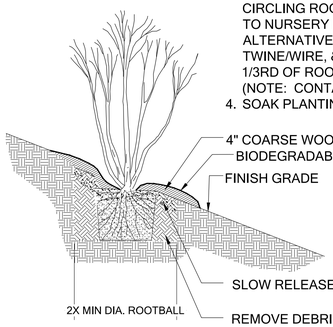

STAKING PATTERN
AT BOTTOM OF BLANKET
STAKE THROUGH COIR
WATTLE AND THROUGH
FABRIC INTO SUBGRADE

PLAN

## 1 COIR FABRIC, COIR LOG, AND STAKING DETAIL

Scale: NTS

NOTES:
1. PLANTING PIT SHALL NOT BE LESS THAN (2) TIMES THE WIDTH OF THE ROOT BALL DIA.
2. LOOSEN SIDES AND BOTTOM OF PLANT PIT
3. REMOVE FROM POT & ROUGH-UP ROOT BALL BEFORE INSTALLING. IF PLANT IS EXCEPTIONALLY ROOT-BOUND OR CONTAINS CIRCLING ROOTS, DO NOT PLANT AND RETURN TO NURSERY FOR AN ACCEPTABLE ALTERNATIVE. IF B&B STOCK, REMOVE ALL TWINE/WIRE, & REMOVE BURLAP FROM TOP 1/3RD OF ROOTBALL PRIOR TO PLANTING (NOTE: CONTAINER STOCK PREFERRED)
4. SOAK PLANTING PIT AFTER PLANTING




## 2 CONTAINER PLANTING ON SLOPE

Scale: NTS

# MITIGATION PLAN DETAILS

SCALE AS NOTED

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SHEET SIZE:
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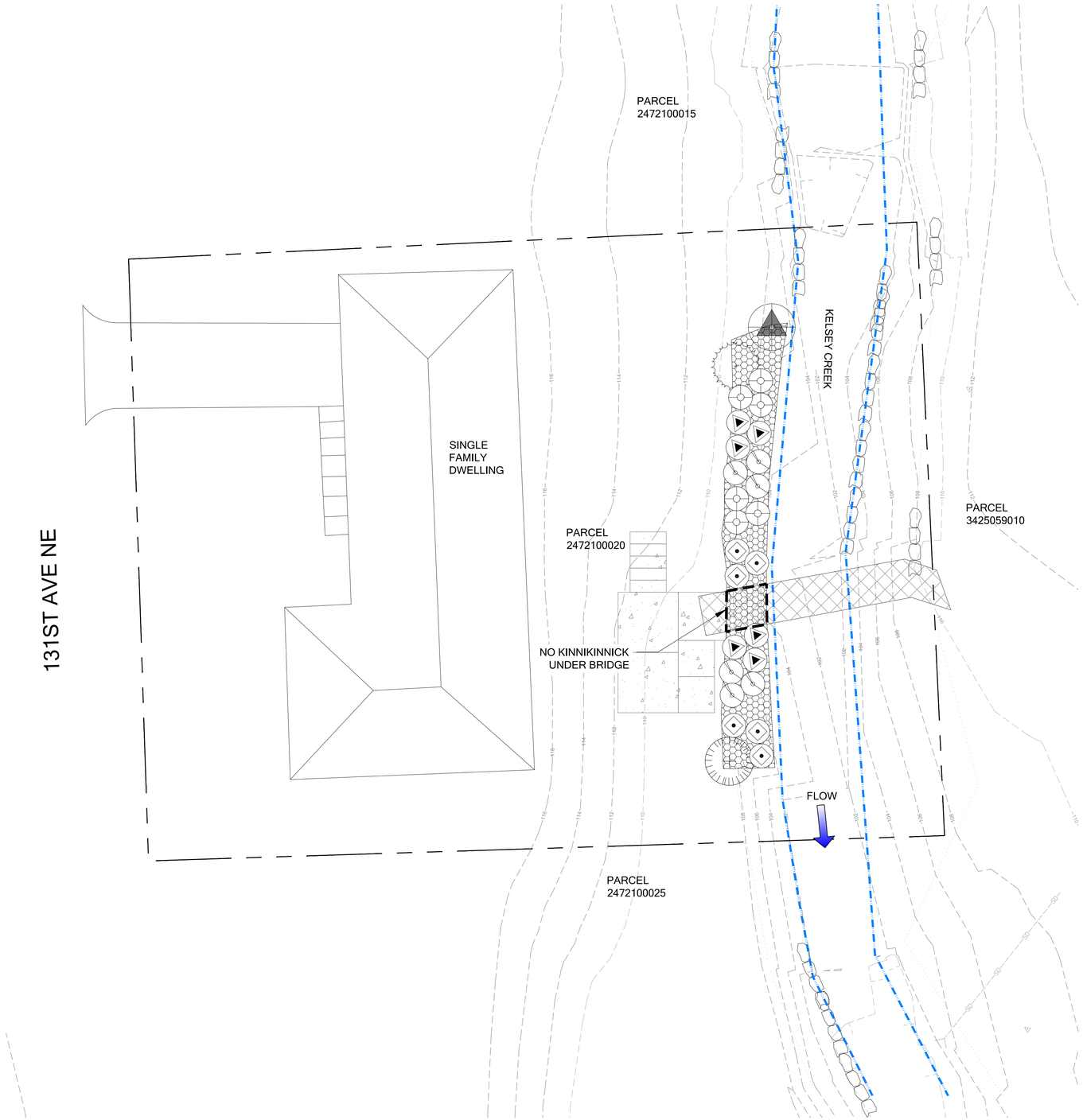
PROJECT MANAGER: KB
DESIGNED: LM
DRAFTED: LM
CHECKED: MF
JOB NUMBER: 170236
SHEET NUMBER: W4 OF 7

DATE 6/22/2017 | PRINTED BY LOGAN MCCLISH | FILENAME 170236_KELSEY_CREEK_MORGAN_MITIGATION.DWG




## PLANTING LIST

| | SIZE | SPACING | QTY |
|---|---|---|---|
| **TREES** | | | |
| FRAXINUS LATIFOLIA / OREGON ASH | 2 GAL | AS SHOWN ON PLAN | 1 |
| PICEA SITCHENSIS / SITKA SPRUCE | 2 GAL | | 1 |
| THUJA PLICATA / WESTERN REDCEDAR | 2 GAL | | 1 |
| **SHRUBS** | | | |
| PHYSOCARPUS CAPITATUS / PACIFIC NINEBARK | 1GAL. | AS SHOWN ON PLAN | 6 |
| ROSA PISOCARPA / CLUSTER ROSE | 1 GAL. | | 6 |
| RIBES SANGUINEUM / RED-FLOWERING CURRANT | 1 GAL. | | 6 |
| HOLODISCUS DISCOLOR / OCEANSPRAY | 1 GAL. | | 6 |
| **GROUND COVER (UNDERPLANT)** | | | |
| FRAGARIA CHILOENSIS / COASTAL STRAWBERRY | 1-GAL. | 18" O.C. | 35 |
| ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK | 1-GAL. | 18" O.C. | 35 |
| POLYSTICHUM MUNITUM | 1-GAL. | 18" O.C. | 30 |

# PLANTING PLAN

SCALE 1:10

0' 5' 10' 20' 40'

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170236
SHEET NUMBER:
W5 OF 7

DATE 6/22/2017 | PRINTED BY LOGAN MCCLISH | FILENAME 170236_KELSEY_CREEK_MORGAN_MITIGATION.DWG

# PLANT INSTALLATION SPECIFICATIONS

GENERAL NOTES

QUALITY ASSURANCE
1. PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
2. PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF).
3. TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED.
4. NOMENCLATURE: PLANT NAMES SHALL CONFORM TO FLORA OF THE PACIFIC NORTHWEST BY HITCHCOCK AND CRONQUIST, UNIVERSITY OF WASHINGTON PRESS, 1973 AND/OR TO A FIELD GUIDE TO THE COMMON WETLAND PLANTS OF WESTERN WASHINGTON & NORTHWESTERN OREGON, ED. SARAH SPEAR COOKE, SEATTLE AUDUBON SOCIETY, 1997.

DEFINITIONS
1. PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC..; SPRIGS, PLUGS, AND LINERS.
2. CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

SUBSTITUTIONS
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS.
2. SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION CONSULTANT.
3. IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE.
4. SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION.

INSPECTION
1. PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE RESTORATION CONSULTANT FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.
2. PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS POSSIBLE.
3. THE RESTORATION CONSULTANT MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE RESTORATION CONSULTANT MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

MEASUREMENT OF PLANTS
1. PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
2. HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION.
3. WHERE A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15" TALL.).

SUBMITTALS

PROPOSED PLANT SOURCES
1. WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

PRODUCT CERTIFICATES
1. PLANT MATERIALS LIST - SUBMIT DOCUMENTATION TO CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH CONSULTANT AT TIME OF SUBMISSION.
2. HAVE COPIES OF VENDOR'S OR GROWERS' INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED).

DELIVERY, HANDLING, & STORAGE

NOTIFICATION
CONTRACTOR MUST NOTIFY CONSULTANT 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT CONSULTANT MAY ARRANGE FOR INSPECTION.

PLANT MATERIALS
1. TRANSPORTATION - DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES, BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE ENSURED.
2. SCHEDULING AND STORAGE - PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.
3. HANDLING - PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE, EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.
4. LABELS - PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

WARRANTY

PLANT WARRANTY
PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS GROWTH.

REPLACEMENT
1. PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS AT THE CONSULTANT'S DISCRETION MUST BE REMOVED FROM SITE AND REPLACED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
2. PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

PLANT MATERIAL

GENERAL
1. PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE USED UNLESS SPECIFIED AS SUCH.

QUANTITIES
SEE PLANT LIST ON ACCOMPANYING PLANS AND PLANT SCHEDULES.

ROOT TREATMENT
1. CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL.
2. PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
3. ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.

# MITIGATION PLAN NOTES

THIS PLAN HAS BEEN PREPARED AS MITIGATION FOR IMPACTS TO KELSEY CREEK ASSOCIATED WITH PROPOSED BRIDGE REPLACEMENT. THIS PROPOSAL WILL IMPACT A TOTAL OF 263 SQUARE FEET OF STREAM AND STREAM BANK. TO OFFSET THESE CRITICAL AREA AND CRITICAL AREA BUFFER IMPACTS, A TOTAL OF 526 SQUARE FEET OF ENHANCEMENT IS PROPOSED. THIS RESULTS IN A NET ENHANCEMENT TO IMPACT RATIO OF 2:1. ENHANCEMENT OF THE DEGRADED BUFFER WILL INCLUDE REMOVAL OF NON-NATIVE AND INVASIVE SPECIES, AND THE INSTALLATION OF A NATIVE TREES, SHRUBS AND GROUNDCOVERS.

MITIGATION AREA WORK SEQUENCE (SEE MATERIALS FOR ITEMS IN BOLD)
A RESTORATION SPECIALIST SHALL MAKE SITE VISITS TO VERIFY THE FOLLOWING PROJECT MILESTONES:
1. ENSURE THAT COPIES OF ALL REQUIRED PERMITS AND AUTHORIZATIONS FROM LOCAL AND STATE AGENCIES, WITH CONDITIONS, ARE PRESENT ON-SITE FOR THE DURATION OF THE WORK.
2. EQUIPMENT USED ON THIS PROJECT MUST BE IN EXCELLENT WORKING CONDITION, WELL MAINTAINED AND COMPLETELY FREE OF FLUID LEAKS OF ANY KIND.
3. BEFORE BEGINNING CONSTRUCTION WORK, ESTABLISH CLEARING LIMITS AND DEFINE THE WORK AREA.
4. IDENTIFY CONSTRUCTION ACCESS, EQUIPMENT ACCESS PATHWAYS, STAGING AREAS, SILT FENCING, HIGH VISIBILITY FENCING, AND ANY AND ALL OTHER TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES, GENERAL AND SITE-SPECIFIC, AS NOTED ON THE PLANS AND SUPPORTING DOCUMENTS OR AS REQUIRED BY VARIOUS PERMITS AND AUTHORIZATIONS.
5. LOCATE ANY EXISTING UTILITIES WITHIN THE PROJECT AREA OR ALONG ACCESS ROUTES AND RELOCATE OR PROTECT ANY THAT MAY INTERFERE WITH OR BE DAMAGED BY PROJECT IMPLEMENTATION.
6. PLACE BIODEGRADABLE FABRIC ALONG THE ENTIRE BANK, WITHOUT SPLICING OR SEAMS.
7. STAKE TWO ROWS OF 12-INCH-DIAMETER BIODEGRADABLE WATTLES ALONG THE TOE OF THE STREAMBANK FOR THE ENTIRE LENGTH OF THE STREAMBANK REPAIR. THE WATTLES ARE TO BE STAKED ON TOP OF THE LAID OUT FABRIC AND WITH THE BOTTOM EDGE OF THE LOWER LOG TOGETHER WITH THE LOWER EDGE OF THE FABRIC. THE WATTLES WILL SERVE AS, AND SUBSTITUTE FOR, SILT FENCING ALONG THE WATER'S EDGE DURING THE PROCESS OF SMOOTHING THE UPPER SLOPE, PLACING AND STAKING BIODEGRADABLE FABRIC, AND IMPLEMENTING THE NATIVE REVEGETATION PLAN
8. TEMPORARILY ROLL THE FABRIC FROM THE TOP, DOWNSLOPE, TO EXPOSE THE EARTHEN SLOPE. LEAVE THE FABRIC ROLLED UP, ON TOP OF OR UP AGAINST THE INSTALLED WATTLES.
9. REMOVE NON-NATIVE AND INVASIVE SPECIES FROM ENHANCEMENT AREA, INCLUDING ROOTS.
10. USING HAND TOOLS, SHOVEL AND RAKE, SMOOTH THE STREAMBANK TO ACHIEVE AN EVEN SLOPE TRANSITION (THE LOWEST SLOPE POSSIBLE).
11. ADD 2" OF COMPOST TO SOIL AND TILL TO A DEPTH OF 6".
12. ADD 4" OF MULCH.
13. PLANT THROUGH THE FABRIC ON THE STREAMBANK SLOPE. SMALL HOLES ARE TO BE CUT TO ALLOW BARE ROOT OR POTTED SPECIMENS TO BE PLANTED THROUGH THE FABRIC. DRIVE WOOD STAKES THROUGH THE FABRIC AND WATTLES ACCORDING TO THE PATTERN AND DENSITY SHOWN ON THE PLANTING PLAN (SHEET W4).
14. PROVIDE IRRIGATION AND MAINTENANCE ACCORDING TO THE PLANTING PLAN.
15. CONDUCT SITE CLEAN-UP, TOUCH-UP, AND FINAL RAKING AND SMOOTHING OF THE PROJECT AREA TO ACHIEVE A FINISHED, LANDSCAPED APPEARANCE.

A. NATIVE PLANT INSTALLATION SHALL OCCUR DURING THE DORMANT SEASON (OCTOBER 15TH THROUGH MARCH 1ST) IN FROST-FREE PERIODS ONLY.

B. LAYOUT PLANT MATERIAL PER PLAN FOR INSPECTION BY THE RESTORATION SPECIALIST. PLANT SUBSTITUTIONS WILL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE **RESTORATION SPECIALIST**.

C. INSTALL PLANTS PER PLANTING DETAILS

5. WATER IN EACH PLANT THOROUGHLY TO REMOVE AIR POCKETS.

6. APPLY A SLOW-RELEASE, PHOSPHOROUS-FREE, GRANULAR FERTILIZER TO EACH INSTALLED PLANT IN YEARS 2-5 AFTER PLANTING.

MAINTENANCE
THE SITE SHALL BE MAINTAINED FOR FIVE YEARS FOLLOWING SUCCESSFUL INSTALLATION.
1. REPLACE EACH PLANT FOUND DEAD IN THE SUMMER MONITORING VISITS IN THE FOLLOWING DORMANT SEASON (OCTOBER 15 - MARCH 1). REPLACEMENT SHALL BE OF THE SAME SPECIES AND SIZE PER PLAN UNLESS OTHERWISE APPROVED BY THE RESTORATION SPECIALIST.
2. GENERAL WEEDING FOR ALL PLANTED AREAS

A. AT LEAST TWICE ANNUALLY, REMOVE COMPETING GRASSES AND WEEDS FROM AROUND THE BASE OF EACH INSTALLED PLANT TO A RADIUS OF 12 INCHES. WEEDING SHOULD OCCUR AT LEAST ONCE IN THE SPRING AND ONCE IN THE SUMMER. THOROUGH WEEDING WILL RESULT IN LOWER PLANT MORTALITY AND ASSOCIATED PLANT REPLACEMENT COSTS.

B. MORE FREQUENT WEEDING MAY BE NECESSARY DEPENDING ON WEED CONDITIONS THAT DEVELOP AFTER PLANT INSTALLATION.

C. DO NOT USE STRING TRIMMERS IN THE VICINITY OF INSTALLED PLANTS, AS THEY MAY DAMAGE OR KILL THE PLANTS.

3. MAINTAIN A THREE-INCH-THICK LAYER OF WOODSTRAND MULCH ACROSS THE ENTIRE PLANTING AREA. MULCH SHOULD BE PULLED BACK TWO INCHES FROM THE PLANT STEMS.
4. DURING AT LEAST THE FIRST TWO GROWING SEASONS, MAKE SURE THAT THE ENTIRE PLANTING AREA RECEIVES A MINIMUM OF ONE INCH OF WATER PER WEEK FROM JUNE 1ST THROUGH SEPTEMBER 30TH.

GOALS
1. MAINTAIN SLOPE STABILITY BY ESTABLISHING HERBACEOUS AND SHRUBBY NATIVE MATERIAL IN THE STEEP SLOPE BUFFER AREAS (AREAS CURRENTLY DOMINATED BY IVY AND HIMALAYAN BLACKBERRY).
2. ENHANCE 526 SQUARE FEET OF DEGRADED STREAM BUFFER.

A. CREATE A DENSE, NATIVE, SHRUB COMMUNITY.

B. REMOVE NON-NATIVE AND INVASIVE PLANT SPECIES FROM THE ENHANCEMENT AREA.

PERFORMANCE STANDARDS
THE FOLLOWING PERFORMANCE STANDARDS WILL BE USED TO GAUGE THE SUCCESS OF THE PROJECT OVER TIME. IF ALL PERFORMANCE STANDARDS HAVE BEEN SATISFIED BY THE END OF YEAR FIVE, THE PROJECT SHALL BE CONSIDERED COMPLETE AND THE CITY OF BELLEVUE SHALL RELEASE THE PERFORMANCE BOND.
1. SURVIVAL

A. ACHIEVE 100% SURVIVAL OF ALL INSTALLED TREES AND SHRUBS BY THE END OF YEAR ONE.

B. ACHIEVE 80% SURVIVAL OF ALL INSTALLED SHRUBS AND 100% SURVIVAL OF ALL INSTALLED CONIFERS BY THE END OF YEAR TWO.

C. ACHIEVE 80% SURVIVAL OF ALL INSTALLED TREES AND SHRUBS BY THE END OF YEAR FIVE. SURVIVAL STANDARDS MAY BE ACHIEVED THROUGH ESTABLISHMENT OF PLANTED MATERIAL, RECRUITMENT OF NATIVE VOLUNTEERS, OR REPLACEMENT PLANTS AS NECESSARY.

2. DIVERSITY

A. ESTABLISH AT LEAST THREE NATIVE SHRUB SPECIES IN THE ENHANCEMENT AREA BY THE END OF YEAR FIVE. ESTABLISHMENT IS DEFINED AS TWO OR MORE INDIVIDUAL PLANTS OF THE SAME SPECIES ALIVE AND HEALTHY.

3. COVER

A. ACHIEVE 40% COVER OF NATIVE TREES, SHRUBS AND GROUNDCOVER BY THE END OF YEAR THREE.

B. ACHIEVE 60% COVER OF NATIVE TREES, SHRUBS, AND GROUNDCOVER BY THE END OF YEAR FIVE.

C. NO MORE THAN 10% COVER BY INVASIVE SPECIES LISTED AS CLASS A, B, OR C BY THE KING COUNTY
NOXIOUS WEED CONTROL BOARD IN ANY MONITORING YEAR.

MONITORING
PRIOR TO THE COMMENCEMENT OF THE MONITORING PHASE, AN AS-BUILT PLAN DOCUMENTING THE SUCCESSFUL INSTALLATION OF THE PROJECT WILL BE SUBMITTED TO THE CITY OF BELLEVUE. IF NECESSARY, THE AS-BUILT REPORT MAY INCLUDE A MARK-UP OF THE ORIGINAL PLAN THAT NOTES ANY SIGNIFICANT CHANGES OR SUBSTITUTIONS THAT OCCURRED. DURING THE AS-BUILT INSPECTION, THE RESTORATION SPECIALIST WILL ESTABLISH AT LEAST TWO PERMANENT PHOTO-POINTS. THE SITE WILL BE MONITORED ANNUALLY FOR FIVE YEARS BEGINNING WITH APPROVAL OF THE AS-BUILT REPORT. THE FORMAL LATE-SEASON MONITORING INSPECTION WILL TAKE PLACE ONCE ANNUALLY DURING LATE SUMMER OR EARLY FALL. DURING EACH LATE-SEASON MONITORING INSPECTION, THE FOLLOWING DATA WILL BE COLLECTED:

1. PERCENT SURVIVAL OF ALL INSTALLED PLANTINGS, INCLUDING SPECIES SPECIFIC COUNTS OF INSTALLED TREE AND SHRUB PLANTINGS (NOTE: GROUNDCOVER PLANTS COUNTED IN YEAR-1 ONLY, FOR WARRANTY PURPOSES).
2. NATIVE WOODY COVER AS DETERMINED USING VISUAL COVER CLASS ESTIMATES.
3. NATIVE GROUNDCOVER PLANT COVER AS DETERMINED USING VISUAL COVER CLASS ESTIMATES.
4. ESTIMATES OF INVASIVE HERBACEOUS PLANTS OR GROUNDCOVER USING VISUAL COVER ESTIMATES.
5. THE SPECIES COMPOSITION, NOTING WHETHER A SPECIES IS NATIVE OR EXOTIC AND WHETHER PLANTS WERE INSTALLED OR ARE VOLUNTEERS.
6. THE GENERAL HEALTH AND VIGOR OF THE INSTALLED VEGETATION.
7. PHOTOGRAPHS FROM FIXED PHOTO-POINTS ESTABLISHED DURING THE AS-BUILT INSPECTION.
8. ANY EVIDENCE OF WILDLIFE USAGE IN THE MITIGATION AREA.

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY TO THE CITY. REPORTS SHALL DOCUMENT THE CONDITIONS OF THE SITE, INCLUDING QUANTITATIVE DATA COLLECTED DURING THE MONITORING INSPECTION, AND SHALL PROVIDE MAINTENANCE RECOMMENDATIONS THAT MAY BE NECESSARY TO HELP THE SITE ACHIEVE THE STATED PERFORMANCE STANDARDS.

CONTINGENCY PLAN
IF ANY MONITORING REPORT REVEALS THAT THE RESTORATION PLAN HAS FAILED IN WHOLE OR IN PART, AND SHOULD THAT FAILURE BE BEYOND THE SCOPE OF ROUTINE MAINTENANCE, THE APPLICANT WILL SUBMIT A CONTINGENCY PLAN TO THE CITY OF BELLEVUE FOR APPROVAL. THIS PLAN MAY INCLUDE REPLANTING, SOIL AMENDMENTS OR TOP-DRESSING, SUBSTITUTIONS FOR SPECIES SELECTED IN THE ORIGINAL PLAN, AND ADAPTIVE WEED CONTROL METHODS.

MATERIALS
1. **WOOD STRAND MULCH:** WOOD STRAND MULCH SHALL MEET WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION FOR WOOD STRAND MULCH AS DEFINED 9-14.4(4). WOOD STRAND MULCH SHALL BE A BLEND OF ANGULAR, LOOSE, LONG, THIN WOOD PIECES THAT ARE FRAYED, WITH A HIGH LENGTH-TO-WIDTH RATION, AND IT SHALL BE DERIVED FROM NATIVE CONIFER OR DECIDUOUS TREES. A MINIMUM OF 95 PERCENT OF THE WOOD STRAND SHALL HAVE LENGTHS BETWEEN 2 AND 10 INCHES. AT LEAST 50 PERCENT OF THE LENGTH OF EACH STRAND SHALL HAVE A WIDTH AND THICKNESS BETWEEN 1/16 AND 1/2 INCH. NO SINGLE STRAND SHALL HAVE A WIDTH OR THICKNESS GREATER THAN 1/2 INCH. THE MULCH SHALL NOT CONTAIN SALT, PRESERVATIVES, GLUE, RESIN, TANNIN, OR OTHER COMPOUNDS IN QUANTITIES THAT WOULD BE DETRIMENTAL TO PLANT LIFE. SAWDUST OR WOOD CHIPS OR SHAVING WILL NOT BE ACCEPTABLE.
2. **COMPOST:** 100% VEGETABLE COMPOST MATERIAL PER WASHINGTON ADMINISTRATIVE CODE 173-350-220.
3. **FERTILIZER:** SLOW-RELEASE, PHOSPHOROUS-FREE GRANULAR FERTILIZER. MOST COMMERCIAL NURSERIES CARRY THIS PRODUCT. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR USE. KEEP FERTILIZER IN WEATHER-TIGHT CONTAINER WHILE ON-SITE. FERTILIZER IS ONLY TO BE APPLIED IN YEARS TWO AND THREE, NOT IN YEAR ONE. LABEL MUST INDICATE FERTILIZER IS AN AQUATIC-SAFE PRODUCT.
4. **RESTORATION SPECIALIST:** QUALIFIED PROFESSIONAL ABLE TO EVALUATE AND MONITOR THE CONSTRUCTION OF ENVIRONMENTAL RESTORATION PROJECTS.

Know what's **below.** **Call** before you dig.



# PLANT INSTALLATION DETAILS & NOTES
SCALE AS NOTED

THE WATERSHED COMPANY
750 Sixth Street South
Kirkland WA 98033
p 425.822.5242
www.watershedco.com
Science & Design

MORGAN BRIDGE REPLACEMENT
MITIGATION PLAN
PREPARED FOR: VIC MORGAN
PARCEL #: 2472100020
624 131ST AVE NE
BELLEVUE, WA 98005

SUBMITTALS & REVISIONS

| NO. | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 1 | 6-22-2017 | REVIEW SET | LJM |

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: KB
DESIGNED: LM
DRAFTED: LM
CHECKED: MF
JOB NUMBER:
170236
SHEET NUMBER:
W6 OF 7

FILENAME: 170236_KELSEY_CREEK_MORGAN_MITIGATION.DWG
PRINTED BY: LOGAN MCCLISH
DATE: 6/22/2017