



DEVELOPMENT SERVICES DEPARTMENT
 ENVIRONMENTAL COORDINATOR
 11511 MAIN ST., P.O. BOX 90012
 BELLEVUE, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: Dennis Libadia, Century Link

LOCATION OF PROPOSAL: 158 and 204 W Lake Sammamish Parkway

NAME & DESCRIPTION OF PROPOSAL: Century Link Slide Repair

Post-construction review of emergency slope stabilization and restoration following a landslide in a steep slope critical area near a wireless communication facility and single-family residences. The restored slope includes drainage improvements and replanting of native vegetation.

FILE NUMBER: 11-115142-LO

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 9/29/2011.
- 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 p.m. on _____.

This DNS may be withdrawn at any time if the proposal is modified so that it is likely to have significant adverse environmental impacts; if there is significant new information indicating, or on, 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.

[Handwritten Signature]
 Environmental Coordinator

9/15/2011
 Date

OTHERS TO RECEIVE THIS DOCUMENT:

- State Department of Fish and Wildlife
- State Department of Ecology,
- Army Corps of Engineers
- Attorney General
- Muckleshoot Indian Tribe



Vicinity Map of Qwest Slide Repair at West Lake Sammamish Parkway SE.



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

Proposal Name: Century Link Slide Repair

Proposal Address: 158 W Lake Sammamish Parkway SE

Proposal Description: Post-construction review of emergency slope stabilization and restoration following a landslide in a steep slope critical area near a wireless communication facility and single-family residences. The restored slope includes drainage improvements and replanting of native vegetation.

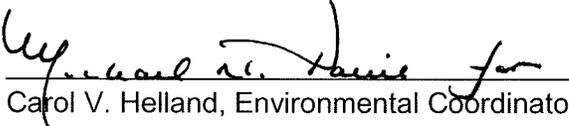
File Number: 11-115142-LO

Applicant: Dennis Libadia, Century Link

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**
Michael A. Brennan, Director
Development Services Department

By: 
Carol V. Helland, Land Use Director

Application Date: June 9, 2011
Notice of Application Date: August 25, 2011
Decision Publication Date: September 15, 2011
Project Appeal Deadline: September 29, 2011

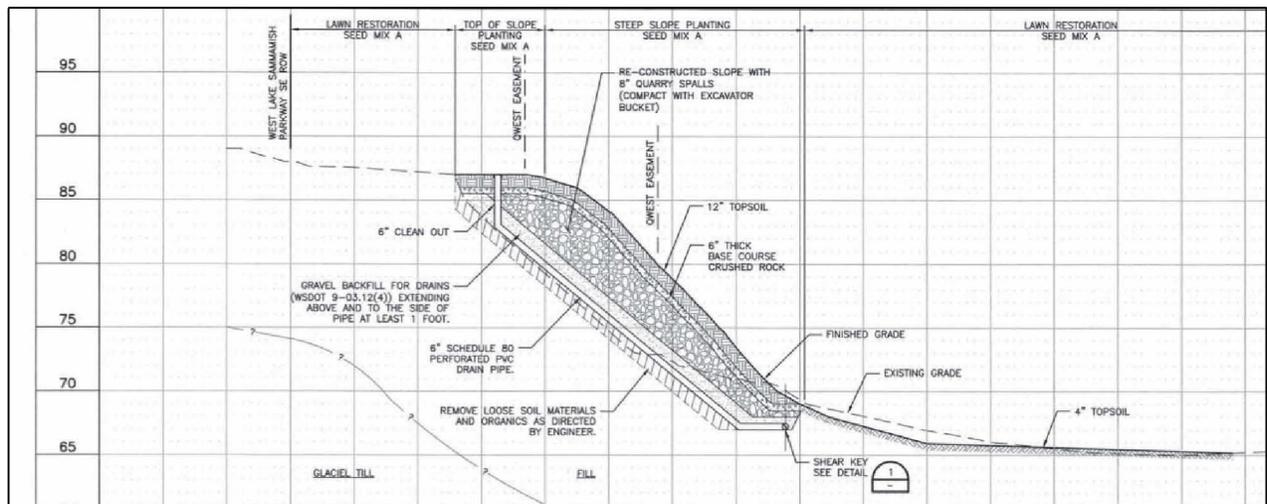
For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Comments on State Environmental Policy Act (SEPA) Determinations can be made with or without appealing the proposal within the noted comment period for a SEPA Determination. Appeal of the 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. Project Plans
2. Restoration Plan
3. Geotech Report, SEPA Checklist, application forms, materials – In File



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

A. Site Description

The project site is located east of W Lake Sammamish Parkway in the Southeast Bellevue subarea of the City. The landslide originated on 158 W Lake Sammamish Parkway adjacent to a Century Link wireless communication facility and the debris slid south onto the adjacent property 204 W Lake Sammamish Parkway. Both properties are single-family residential and are developed. Developed and undeveloped single-family zoned properties are located in the vicinity of the project area. The steep slope critical areas on the property are located along the Parkway and form a slope embankment. See Figure 2 for existing site condition.

Figure 2



B. Zoning

The property is zoned R-2.5, single-family residential which allows slope stabilization.

C. Land Use Context

The property has a Comprehensive plan Land Use Designation of SF-M (Single Family Medium Density). Stabilization is consistent with this residential land use.

D. Critical Areas On-Site and Regulations

i. Geologic Hazard Areas

Geologic hazards pose a threat to the health and safety of citizens when commercial, residential, or industrial development is inappropriately sited in areas of significant hazard. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided (WAC 365-190).

Steep slopes may serve several other functions and possess other values for the City and its residents. Several of Bellevue's remaining large blocks of forest are located in steep slope areas, providing habitat for a variety of wildlife species and important linkages between habitat areas in the City. These steep slope areas also act as conduits for groundwater, which drains from hillsides to provide a water source for the City's wetlands and stream systems. Vegetated steep slopes also provide a visual amenity in the City, providing a "green" backdrop for urbanized areas enhancing property values and buffering urban development.

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

No structure is proposed which is limited by the dimensional requirements in LUC 20.20.010.

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 proposed stabilization is an allowed use, provided certain requirements are met. The project is subject to the performance standards found in LUC 20.25H.055.C.3.m and LUC 20.25H.125 which are reviewed below.

i. Consistency With LUC 20.25H.055.C.3.m

Stabilization Measures. Proposed stabilization measures within a critical area or critical area buffer to protect against steep slopes or landslide hazards may be approved in accordance with this subsection.

- a. When Allowed. New or enlarged stabilization measures shall be allowed**

only to protect existing primary structures and infrastructure, or in connection with uses and development allowed pursuant to subsection B of this section. Stabilization measures shall be allowed only where avoidance measures are not technically feasible.

The emergency slope restoration was conducted to protect the road infrastructure of W Lake Sammamish Parkway, private wireless communication infrastructure, and existing residential primary structures. The restoration of the steep slope is necessary due to the location of the landslide and existing improvements; avoidance is not possible.

- b. Type of Stabilization Measure Used. Where a stabilization measure is allowed, soft stabilization measures shall be used, unless the applicant demonstrates that soft stabilization measures are not technically feasible. As used in this part, “soft stabilization measures” include: biotechnical measures, bank enhancement, anchor trees, gravel placement, stepped back rockeries, vegetative plantings and similar measures that use natural materials engineered to provide stabilization while mimicking or preserving the functions and values of the critical area.**

The work conducted restored the slope to the pre-existing grades and improved drainage on the slope through the use of rock and gravel overlaying a drainage system meant to convey water down the slope to prevent future erosion and soil saturation. The fill material was covered with dirt and planted with native plants to restore vegetation to the steep slope. This work qualifies as soft stabilization as it restores functions and values to the slope critical area.

ii. Consistency with LUC 20.25H.125

Development within a landslide hazard or steep slope critical area or the critical area buffers of such hazards shall incorporate the following additional performance standards in design of the development, as applicable. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function.

- 1. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;**

No building foundations are proposed. The work proposes to restore the pre-existing grades of the steep slope.

- 2. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;**

No structures are proposed and no vegetation is to be removed beyond what was lost during the landslide.

- 3. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;**

The project geotechnical engineer (GeoEngineers) reviewed the proposal and

provided recommendations in a geotech report as Attachment 3. The project geotechnical engineer found that the proposed drainage improvements and restoration of the slope with a rock buttress “will reduce the potential for further landslides in the immediate vicinity” (Geotech Report, Pg. 5).

- 4. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes would result in increased disturbance as compared to use of retaining wall; No walls are proposed.**
- 5. Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer;**
No impervious surfaces are proposed within the steep slope critical area.
- 6. Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteria;**
No building or retention system is proposed.
- 7. Building foundation walls shall be utilized as retaining walls rather than rockeries or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation;**
No foundations are proposed.
- 8. On slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification;**
No enclosed structure is proposed.
- 9. On slopes in excess of 40 percent, piled deck support structures are required where technically feasible for parking or garages over fill-based construction types; and**
No parking area or garage is proposed.
- 10. 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.**
Once the slope is restored it will be planted per the plan found in Attachment 1. The planting is required to be maintained and monitored for a period of at least three years with provision for a further 2 years if needed. The monitoring plan

can be found as Attachment 2. See Conditions of Approval in Section X of this report.

IV. Public Notice and Comment

Application Date: June 9, 2011
Public Notice (500 feet): August 25, 2011
Minimum Comment Period: September 8, 2011

The Notice of Application for this project was published in the City of Bellevue Weekly Permit Bulletin on August 25, 2011. It was mailed to property owners within 500 feet of the project site. No comments were received.

V. Summary of Technical Reviews

A. Clearing and Grading

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

VI. 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

Thirty cubic yards of excavation and 200 cubic yards of fill were required to restore the slope. Site soils consist of Alderwood gravelly sandy loam overlain with sandy silts. Erosion and sedimentation control requirements and BMPs were reviewed by the Clearing and Grading Department under the existing clearing and grading permit 11-115143-GH. See Conditions of Approval in Section X of this report.

B. Plants and Animals

No significant trees will be removed and no impacts to species of local importance are anticipated. Once work is completed the slope will be restored with native vegetation.

D. Noise

The only noise anticipated as a result of this work will be from construction equipment. Any noise is regulated by Chapter 9.18 BCC. See Conditions of Approval in Section X of this report.

VII. Changes to Proposal Due to Staff Review

No changes to the proposal were requested.

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 clearing and grading and any other required development permits. See Conditions of Approval in Section X 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.

The project will restore the slope, improve drainage, and replant vegetation which is consistent with soft-stabilization practices.

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

As discussed in Section III of this report, the applicable performance standards of LUC Section 20.25H are being met.

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

The proposed activity will not impact public facilities.

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

The planting plan is found in Attachment 1 and restores vegetation to the steep slope critical area. The restoration plan in Attachment 2 establishes three years of maintenance and monitoring with provision to increase to five years if performance standards are not met. Monitoring reports are to be submitted every year. See Conditions of Approval in Section X of this report.

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 the Development Services Department does hereby **approve with conditions** the proposed restoration and stabilization of the steep slope critical area and vegetation

restoration. **Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A clear and grade permit and/or other development 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.

X. 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	Tom McFarlane, 425-452-5207
Land Use Code- BCC Title 20	Reilly Pittman, 425-452-4350
Noise Control- BCC 9.18	Reilly Pittman, 425-452-2973

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

- 1. Clearing and Grading Permit:** Approval of this Critical Areas Land Use Permit does not constitute an approval of a development permit. The approved plans under Clearing and Grading permit 11-115143-GH shall be consistent with the activity permitted under this approval.

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

- 2. Maintenance and Monitoring:** The restoration plan in Attachment 2 is required for the maintenance and monitoring 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

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

- 3. Land Use Inspection:** Following installation of planting the applicant shall contact Land

Use staff to inspect the planting area prior to final clearing and grading inspection. Staff will need to find that the plants are in a healthy and growing condition.

Authority: Land Use Code 20.30P.140

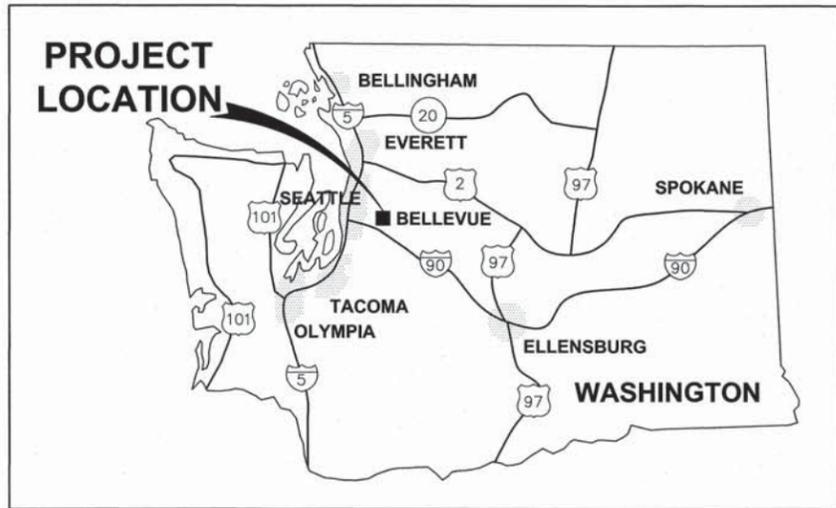
Reviewer: Reilly Pittman, Development Services Department

- 4. 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
Project Plans**



PROJECT LOCATION MAP
SCALE: NOT TO SCALE

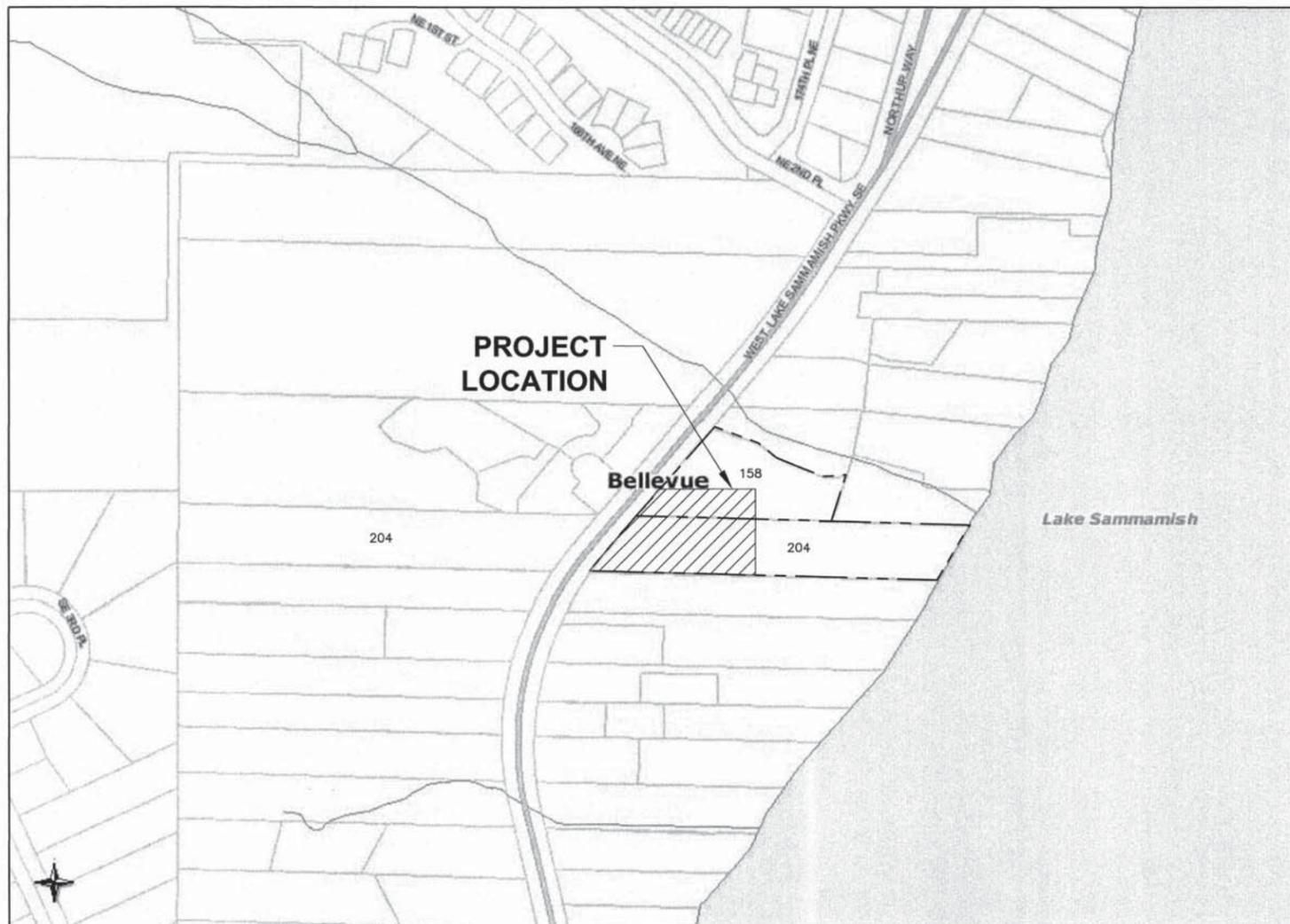


Contract Drawings For

QWEST Slide Repair at West Lake Sammamish Parkway S.E.



HDR Engineering, Inc.
500 108th Avenue NE
Suite 1200
Bellevue, WA 98004-5549
(425) 450-6200, X6338
Contact: Mike Blanchette, PE



VICINITY MAP
SCALE: NOT TO SCALE

QWEST Job No. 01W2R4B

HDR Project No.
00000000154268

Seattle, Washington
June 2011

INDEX OF DRAWINGS

GENERAL

- G-001 VICINITY MAP AND DRAWING INDEX
- G-002 GENERAL AND CONSTRUCTION NOTES AND ABBREVIATIONS

CIVIL

- C-001 ESC PLAN / BOUNDARY AND TOPOGRAPHIC SURVEY
- C-002 GRADING PLAN
- C-003 SECTION AND DETAILS
- C-004 RESTORATION PLAN
- C-005 STANDARD DETAILS / LANDSCAPE PLANTING PLAN AND NOTES

SITE PLAN SYMBOLOGY

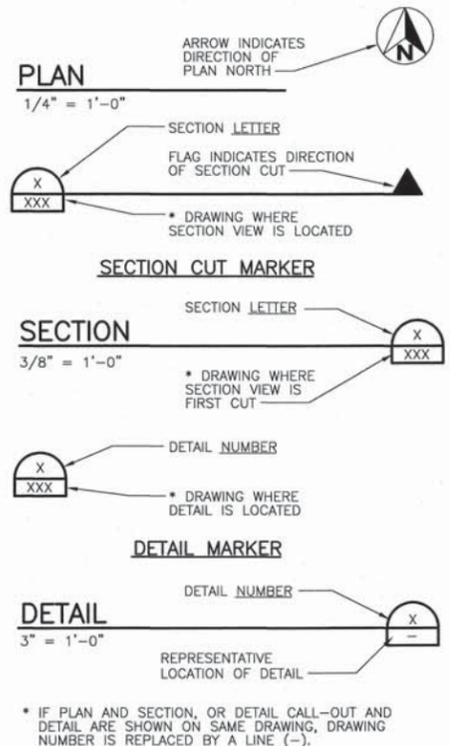
SYMBOL OR LINETYPE	DESCRIPTION
— 20 —	MAJOR CONTOURS AND LABELS
— — —	MINOR CONTOURS
— — — — —	PROFILE FINAL GRADE SURFACE
- - - - -	PROFILE EXISTING GRADE SURFACE
● MH	MANHOLE
○ PZ	PIEZOMETER
■ CB	STORM DRAIN CATCH BASIN
■ UV	UTILITY VAULT
● PP	POWER POLE
● TP	TELEPHONE POLE
● FH	FIRE HYDRANT
● YH-X	YARD HYDRANT
X 75.5	EXISTING SPOT ELEVATION
75.8	FINISHED SPOT ELEVATION
△	HORIZONTAL CP-X, CONTROL POINT
△	BENCHMARK
⊗ TH-X*	IDENTIFICATION AND APPROXIMATE LOCATION OF SOIL TEST HOLE
→	DOWNGUY

NOTES:
UTILITIES THAT ARE SUSPENDED ABOVE GRADE ARE DESIGNATED BY THE PREFIX "OH".

— UGT —	TELEPHONE LINE
— UGT —	TELEPHONE LINE, EXISTING
— UGE —	ELECTRIC LINE
— UGE —	ELECTRIC LINE, EXISTING
— OHE —	OVERHEAD ELECTRIC LINE, EXISTING
— SD —	STORM DRAIN LINE, EXISTING
— F —	FIBER OPTIC
— C —	COMMUNICATION
— — — — —	PIPELINE
— — — — —	LARGE PIPELINE
→ — — — —	DRAINAGE FLOW
— — — — —	NATURAL WATERWAY, DIRECTION OF FLOW
— — — — —	STREAM BUFFER
-X-X-X-	FIELD FENCE
— — — — —	PROPERTY LINE
— — — — —	RIGHT-OF-WAY LINE
— — — — —	CENTERLINE
— — — — —	SILT FENCE
— — — — —	CONSTRUCTION FENCE
— — — — —	EASEMENT
— — — — —	CLEARING LIMITS
— OHW — OHW —	ORDINARY HIGH WATER

GENERAL SYMBOLOGY

SYMBOL OR LINETYPE	DESCRIPTION
[Pattern]	GRASSED UPLAND - SEED MIX A
[Pattern]	GRAVEL BACKFILL FOR DRAINS
[Pattern]	EROSION CONTROL BLANKET OR MATT
[Pattern]	CONCRETE
[Pattern]	CONSTRUCTION ENTRANCE
[Pattern]	ASPHALT OVERLAY
[Pattern]	TOPSOIL
[Pattern]	1-1/4" MINUS CRUSHED ROCK
[Pattern]	2"-4" QUARRY SPALLS
[Symbol]	SHRUBS AND BUSHES
[Symbol]	TREE DRIP LINE
[Symbol]	CONIFER TREE
[Symbol]	DECIDUOUS TREE
[Symbol]	PLASTIC CONSTRUCTION FENCE
[Symbol]	PIPE SLOPE DRAIN
[Symbol]	STRAW MULCHING
[Symbol]	INTERCEPTOR DIKE AND/OR SWALE



GENERAL CONSTRUCTION SEQUENCE

- FOLLOWING THE RECEIPT OF THE NOTICE TO PROCEED, THE GENERAL CONSTRUCTION SEQUENCE ENVISIONED FOR THIS PROJECT IS AS FOLLOWS:
- FINALIZE WORK PLAN AND SUBMITTALS.
 - MOBILIZE EQUIPMENT AND MATERIALS TO PROJECT SITE.
 - SURVEY AND LAYOUT CLEARING LIMITS.
 - CONFIRM EXISTING UTILITY LOCATIONS
 - INSTALL ALL REQUIRED ESC MEASURES - SILT FENCE, ETC.
 - REMOVE LOGS AND OTHER SLIDE DEBRIS PRIOR TO BUTTRESS CONSTRUCTION.
 - REMOVE ORGANICS AND LOOSE SOILS FROM SLIDE AREA.
 - INSTALL UNDERDRAIN AND INFILTRATION TRENCH.
 - BACKFILL SLIDE AREA WITH QUARRY SPALLS AND CRUSHED ROCK AND UNDER SLAB.
 - SPREAD TOP SOIL EVENLY TO MATCH GRADES.
 - PLACE MATTING ON SLOPE.
 - INSTALL HYDROSEED AND PLANTINGS.
 - AFTER SOIL IS STABILIZED REMOVE ESC MEASURES.

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 SHALL BE 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 SHALL 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 FLAGGED BY THE CONTRACTOR AND APPROVED BY THE CLEARING AND GRADING INSPECTOR PRIOR TO BEGINNING ANY WORK ON THE SITE.
- A REINFORCED SILT FENCE MUST BE INSTALLED IN ACCORDANCE WITH COB EC-5 AND SHALL BE LOCATED AS SHOWN ON THE APPROVED PLANS OR PER THE CLEARING AND GRADING INSPECTOR, ALONG SLOPE CONTOURS AND DOWN SLOPE FROM THE BUILDING SITE.
- A HARD-SURFACE CONSTRUCTION ACCESS PAD IS REQUIRED PER CLEARING & GRADING STANDARD DETAIL EC-1 OR EC-2. THIS PAD MUST REMAIN IN PLACE UNTIL PAVING IS INSTALLED.
- CLEARING SHALL 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 AND 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 AND 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 AND GRADING INSPECTOR.
 - INSTALL CATCH BASIN INSERTS AS REQUIRED BY THE CLEARING AND 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 ONSITE.
- FINAL SITE GRADING MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING STRUCTURES AT A MINIMUM 2% SLOPE, PER THE UNIFORM BUILDING CODE.

GENERAL NOTES:

- THIS IS A STANDARD DRAWING SHOWING COMMON SYMBOLOGY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH DRAWING FOR USAGE.

1. VERTICAL DATUM IS NAVD 1988.

2. HORIZONTAL DATUM IS WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE (1983/91).

3. CONTROL MONUMENTS:

POINT NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
1084	224356.99	1324921.17	87.28	CONTROL POINT EXISTING ROW STAKING
1129	224355.94	1324960.61	82.89	CONTROL POINT EXISTING ROW STAKING
1232	224395.31	1324953.58	87.79	CONTROL POINT EXISTING ROW STAKING

NOTES:
ALL RECORD UTILITIES ARE ON "-RECD-LIN," "-RECD-SYM," AND "-RECD-TXT" LAYERS.
THE APPROXIMATE RIGHT-OF-WAY LINES WERE DEVIVED FROM KING COUNTY ASSESSORS MAPS.



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	M. BLANCHETTE
DESIGNED	B. SHAHA
DRAWN	M. NAGAMATSU
CHECKED	T. LARSON
PROJECT NUMBER	00000000154268



QWEST - WEST LAKE SAMMAMISH SLIDE REPAIR

LEGEND, GENERAL AND SURVEY CONTROL NOTES

0 1" 2"

FILENAME	00G002.dwg	SHEET	G002
SCALE	NTS		

CALL 48 HOURS BEFORE YOU DIG
1-800-424-5555

ESC NOTES:

- ① SEE DRAWING 00G002 FOR CLEARING AND GRADING STANDARD NOTES AND RECOMMENDED CONSTRUCTION SEQUENCE.
- ② CLEARING LIMIT SHALL FOLLOW ROAD RIGHT-OF-WAY OR PROPERTY LINE UNLESS SHOWN OTHERWISE.
- ③ STABILIZE FILL SLOPES WITH STRAW MULCH.
- ④ ALL SLOPES NOT PROTECTED BY EROSION CONTROL MATTING SHALL BE STABILIZED WITH STRAW MULCH.
- ⑤ PROTECT EXISTING TREES FROM DAMAGE. AVOID LAND DISTURBANCE WITHIN THE DRIPLINE SHOWN.
- ⑥ SILT FENCES SHALL REMAIN IN PLACE UNTIL RESTORATION IS COMPLETE.

TAX PARCEL NO. 362509153
158 WEST LAKE SAMMAMISH PKWY SE
(ALLEN RESIDENCE)

TAX PARCEL NO. 3625059009
204 WEST LAKE SAMMAMISH PKWY SE
(SCHOBER RESIDENCE)

ESC PLAN
SCALE: 1"=10'

1"=10'-0"
SCALE IN FEET

CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555

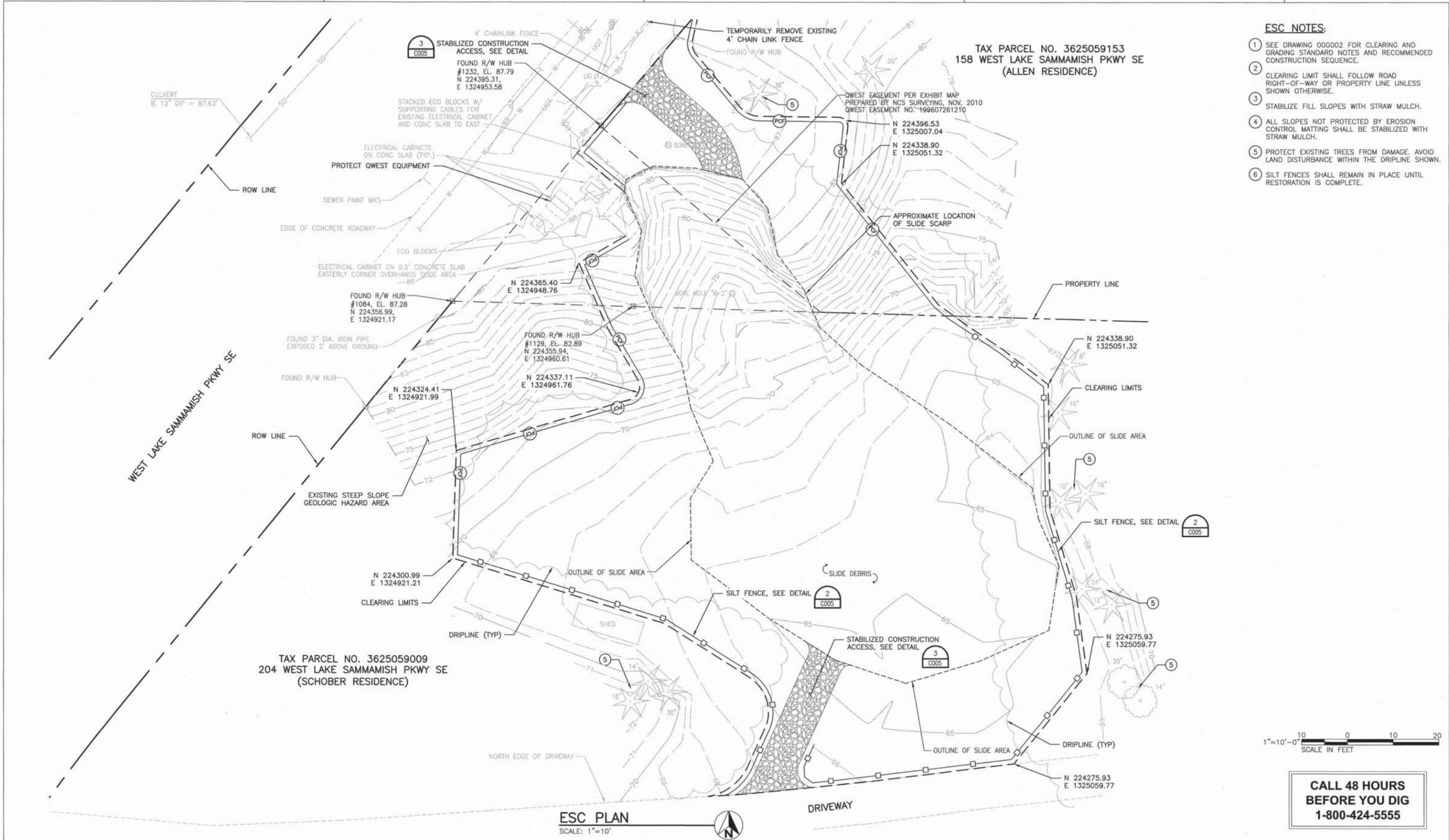


ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	M. BLANCHETTE
DESIGNED	B. SHAHA
DRAWN	M. NAGAMATSU
CHECKED	T. LARSON
PROJECT NUMBER	00000000154268



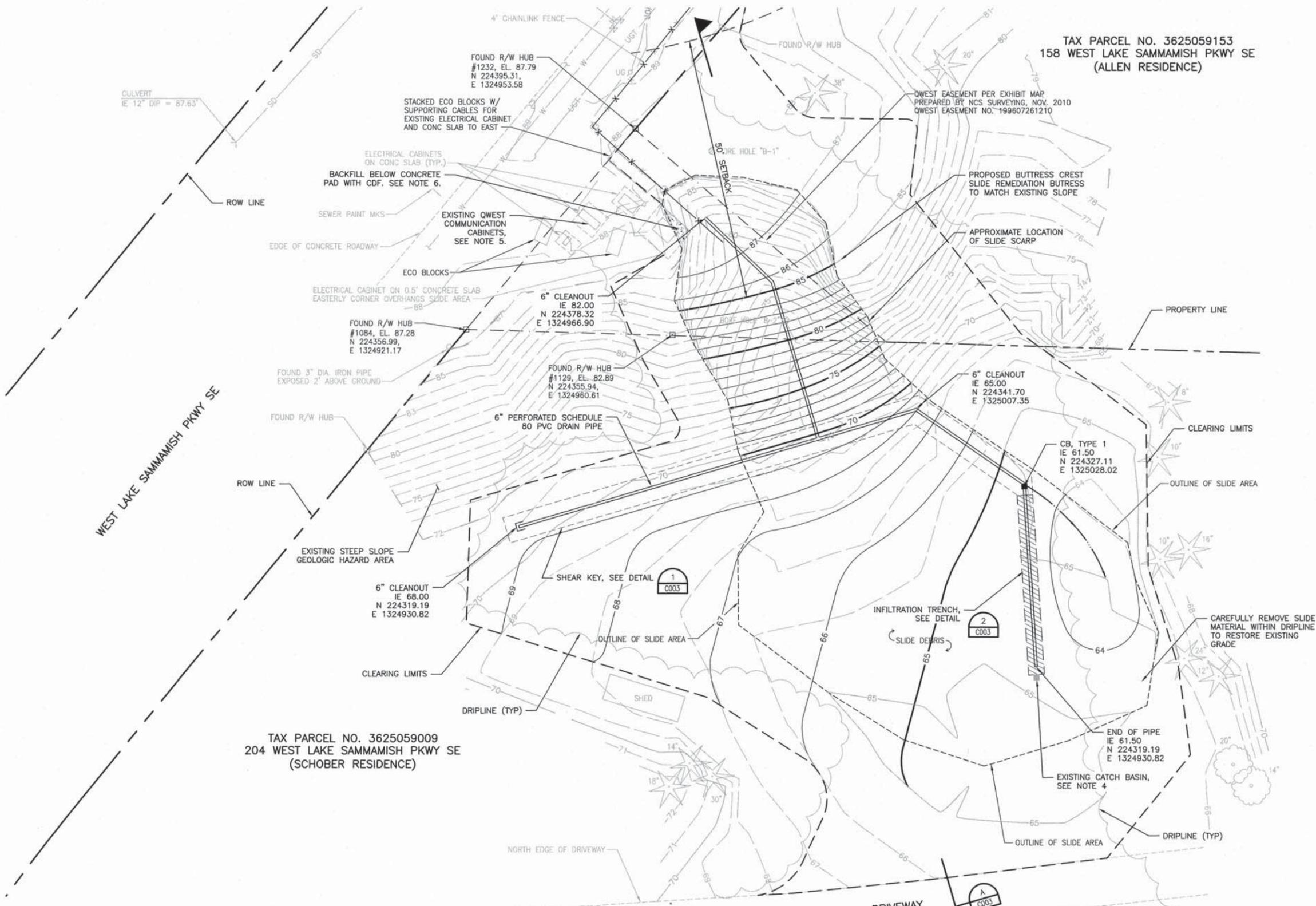
QWEST - WEST LAKE SAMMAMISH SLIDE REPAIR		FILENAME	01C001.dwg	SHEET	C001
ESC PLAN/BOUNDARY AND TOPOGRAPHIC SURVEY		SCALE	1"=10'		



TAX PARCEL NO. 3625059153
158 WEST LAKE SAMMAMISH PKWY SE
(ALLEN RESIDENCE)

GENERAL NOTES:

- UTILITY INFORMATION SHOWN HAS BEEN OBTAINED FROM AVAILABLE RECORDS. THE ACTUAL LOCATIONS MAY DIFFER. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR.
- CONTRACTOR SHALL POTHOLE UG UTILITIES AT CROSSINGS SHOWN ON PLANS PRIOR TO START OF WORK.
- REMOVE LOGS AND OTHER SLIDE DEBRIS PRIOR TO FILLING AND GRADING.
- LOCATE EXISTING CATCH BASIN AND CLEAN. NOTIFY ENGINEER FOR POSSIBLE CONNECTION TO UNDER DRAIN.
- PROTECT QWEST EQUIPMENT DURING CONSTRUCTION. DO NOT DISTURB TEMPORARY BRACING OF CABINETS. QWEST WILL REMOVE BRACING AFTER SLOPE STABILIZATION IS COMPLETED.
- BACKFILL UNDERMINED SLAB WITH CDF BACKFILL BETWEEN QUARRY SPALLS AND SLAB TO PROVIDE FIRM SUPPORT. IT MAY BE NECESSARY TO CORE THROUGH SLAB TO GROUT ANY REMAINING VOIDS. NOTIFY QWEST BEFORE PERFORMING ANY WORK ON CONCRETE SLAB.



TAX PARCEL NO. 3625059009
204 WEST LAKE SAMMAMISH PKWY SE
(SCHOBER RESIDENCE)

SLIDE REPAIR PLAN
SCALE: 1"=10'



CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555



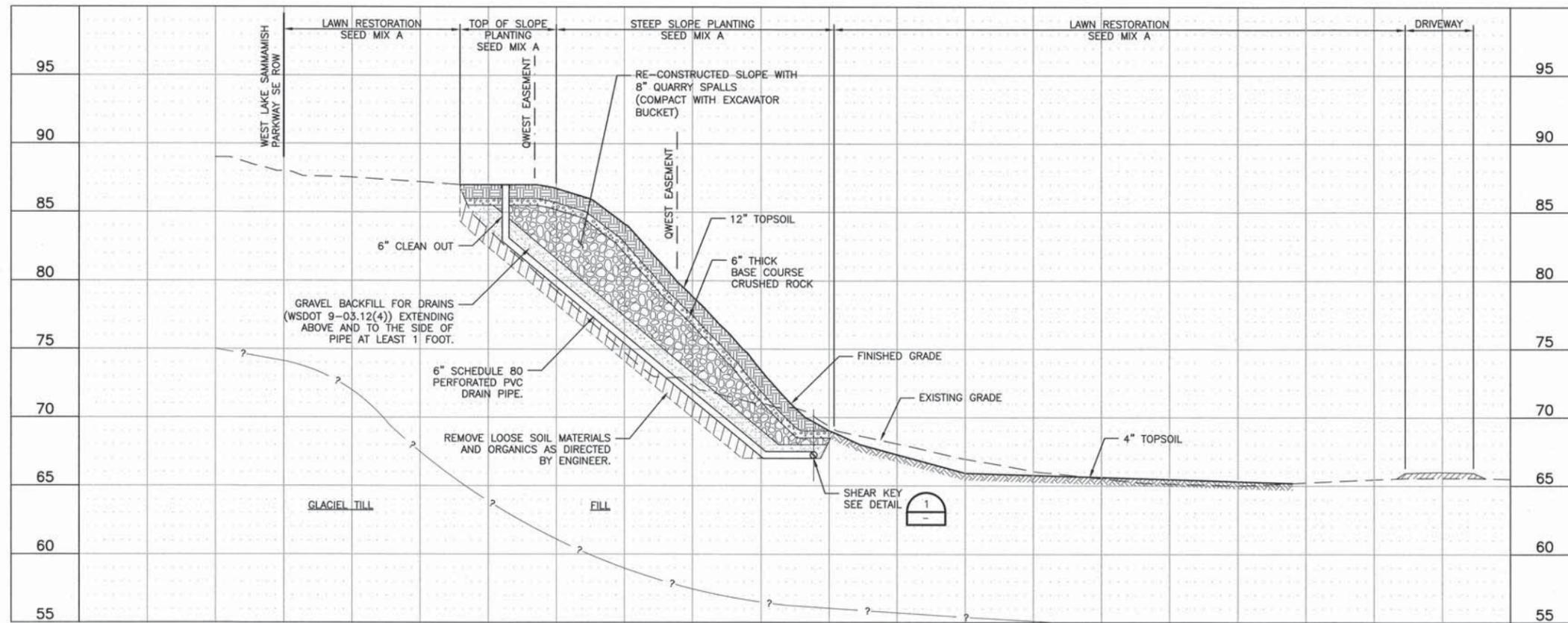
ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	M. BLANCHETTE
DESIGNED	B. SHAHA
DRAWN	M. NAGAMATSU
CHECKED	T. LARSON
PROJECT NUMBER	00000000154268



**QWEST - WEST LAKE SAMMAMISH
SLIDE REPAIR
GRADING PLAN**

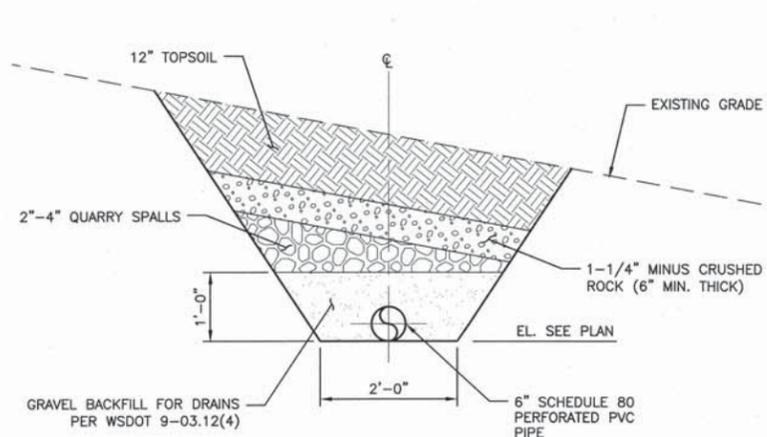
FILENAME	01C002.dwg	SHEET	C002
SCALE	1"=10'		



CROSS-SECTION A-A

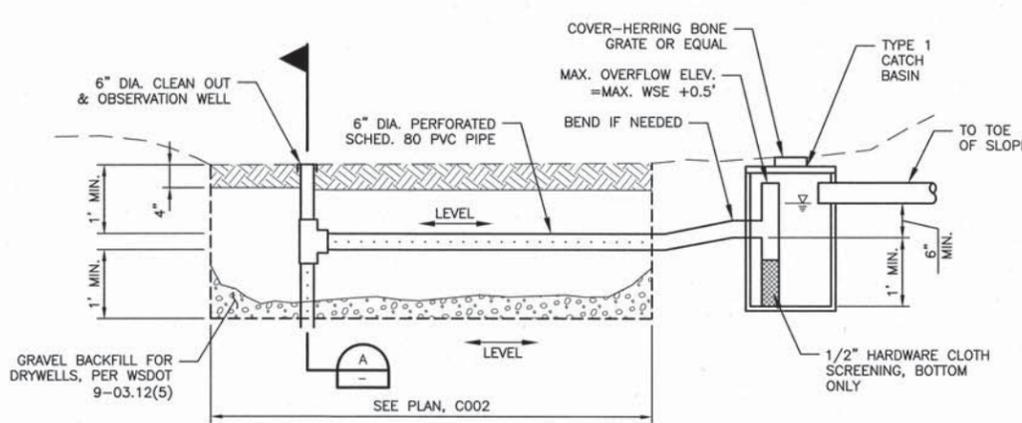
SLIDE REPAIR SECTION

SCALE: H:1"=10', V:1"=5'



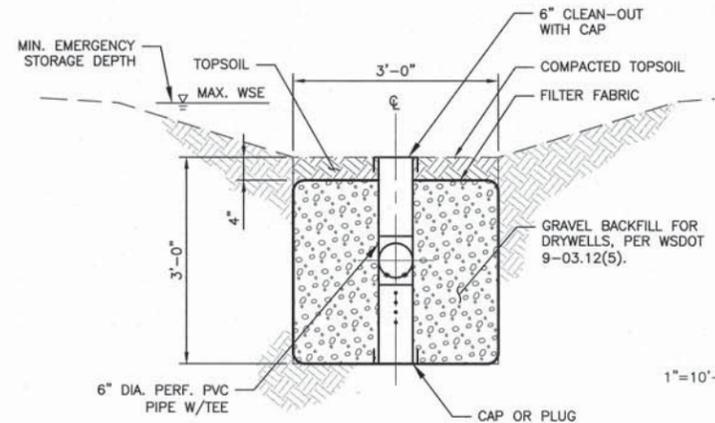
SHEAR KEY DETAIL

SCALE: 3/4"=1'-0"



INFILTRATION TRENCH DETAIL

SCALE: 3/4"=1'-0"



INFILTRATION TRENCH SECTION

SCALE: 3/4"=1'-0"



- GENERAL NOTES:**
1. REMOVE LOOSE SATURATED SOILS AND ORGANICS PRIOR TO PLACING UNDERDRAIN AND ROCK FILL. GRADE AND COMPACT SURFACE WITH BACKHOE BUCKET.
 2. UNDERDRAIN SHALL BE BEDDED AND BACKFILLED IN GRAVEL BACKFILL FOR DRAINS PER WSDOT 9-03.12(4). BACKFILL SHALL EXTEND ABOVE AND TO THE SIDE TO THE PIPE AT LEAST 12-INCHES.
 3. UNDERDRAIN PIPE SHALL BE 6-INCH PERFORATED SCHEDULE 80 PER WSDOT 9-05.2(6).
 4. QUARRY SPALLS SHALL BE 8" MAXIMUM PER QUARRY SPALLS PER WSDOT 9-13.6. QUARRY SPALLS SHALL BE PLACED AND COMPACTED WITH EXCAVATOR BUCKET WORKING FROM BASE OF SLOPE UPHILL.
 5. CRUSHED ROCK CAP FOR QUARRY SPALLS SHALL BE CRUSHED SURFACING BASE COURSE PER WSDOT 9-03.9(3).
 6. FILTER FABRIC FOR INFILTRATION TRENCH SHALL BE A GEOTEXTILE FABRIC, CLASS B, NONWOVEN, MODERATE SURVIVABILITY PER WSDOT 9-33.2(1).
 7. WASHED ROCK FOR INFILTRATION TRENCH SHALL BE GRAVEL BACKFILL FOR DRYWELLS PER WSDOT 9-03.12(5).



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	M. BLANCHETTE
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DRAWN	M. NAGAMATSU
CHECKED	T. LARSON
PROJECT NUMBER	00000000154268

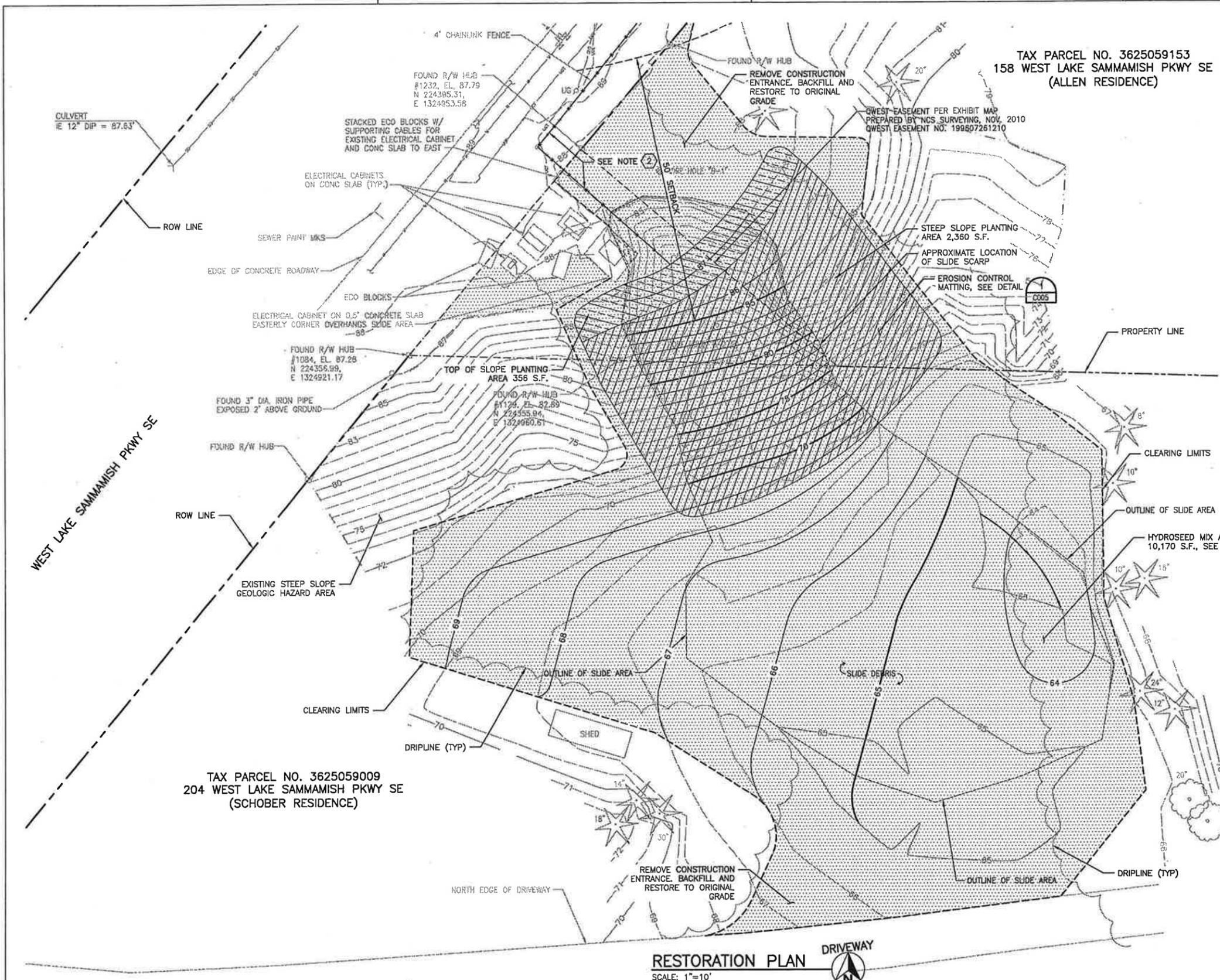


QWEST - WEST LAKE SAMMAMISH SLIDE REPAIR

SECTION AND DETAILS

FILENAME	01C003.dwg	SHEET	C003
SCALE	VARIES		

CALL 48 HOURS BEFORE YOU DIG
1-800-424-5555



- RESTORATION NOTES:**
- SEE DRAWING C005 FOR SEEDING AND STEEP SLOPE PLANTING NOTES AND DETAILS.
 - REPLACE 3'-0" CHAIN LINK FENCE.
 - PRIOR TO PLANTING AND SEEDING, SURFACE SHALL BE COMPACTED, GRADED SMOOTH, AND FREE DRAINING. NOTIFY QWEST FOR INSPECTION OF SURFACE PRIOR TO PLANTING.

- RESTORATION LEGEND:**
- GRASS
 - STEEP SLOPE PLANTING AREA
 - TOP OF SLOPE PLANTING AREA

PLANT SCHEDULE:

Planting Type	Common Name	Scientific Name	Symbol	Spacing	Mix. Size	Quantity
Top of Slope						
Planting Area 356 s.f.	Douglas-fir	<i>Pseudotsuga menziesii</i>	DF	9' O.C.	5 gallon / 4ft. ht.	3
	Red alder	<i>Alnus rubra</i>	RA	9' O.C.	2 gallon	2
Steep Slope Planting Area 2360 s.f.	Red alder	<i>Alnus rubra</i>	RA	15' O.C.	2 gallon	9
	Oceanspray	<i>Holodiscus discolor</i>	OS	4' O.C.	2 gallon	37
	Redflowering currant	<i>Ribes sanguineum</i>	RC	4' O.C.	2 gallon	37
	Snowberry	<i>Symphoricarpos albus</i>	SN	4' O.C.	2 gallon	37
	Mock orange	<i>Philadelphus lewisii</i>	MO	4' O.C.	2 gallon	37
Hydroseed Mix A - Low-Growing Turf Seed Mix 0.23 acres	Dwarf tall fescue	<i>Festuca arundinacea</i>		% Weight	% Purity	% Germination
	Dwarf perennial rye	<i>Lolium perenne</i>		45	98	90
	Red fescue	<i>Festuca rubra</i>		30	98	90
	Colonial bentgrass	<i>Agrostis tenuis</i>		20	98	90
				5	98	90

*Upland seed mix to be applied at 120lbs/acre



CALL 48 HOURS BEFORE YOU DIG
1-800-424-5555

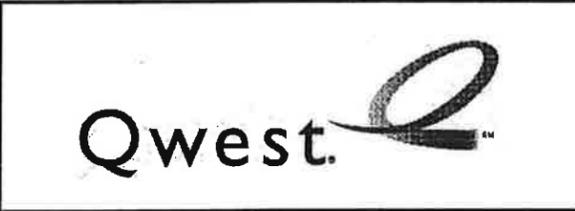
RESTORATION PLAN
SCALE: 1"=10'



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER M. BLANCHETTE
DESIGNED B. SHAHA
DRAWN M. NAGAMATSU
CHECKED T. LARSON

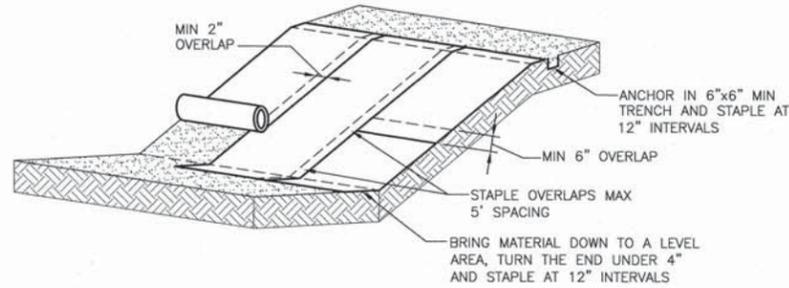
PROJECT NUMBER 00000000154268



QWEST - WEST LAKE SAMMAMISH SLIDE REPAIR

RESTORATION PLAN

FILENAME 01C004.dwg SHEET C004
SCALE 1"=10'

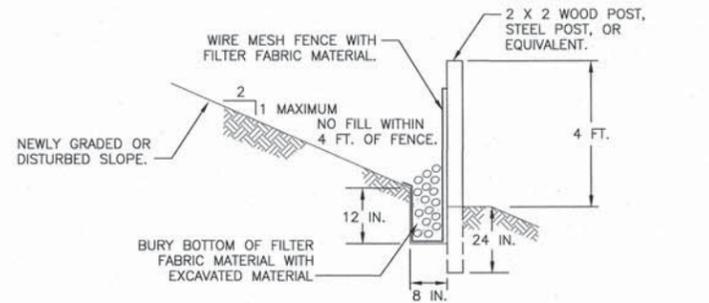


GENERAL NOTES:

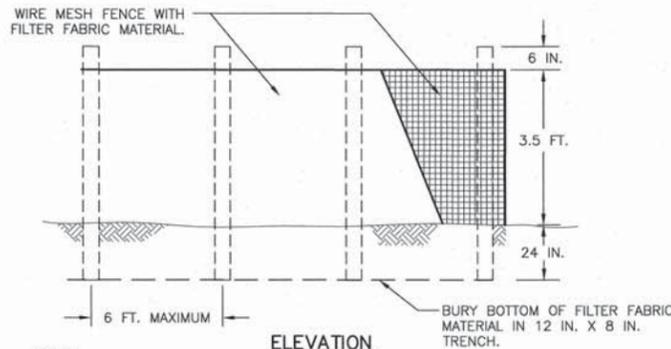
1. SLOPE SURFACE SHALL BE SMOOTH BEFORE PLACEMENT FOR PROPER SOIL CONTACT.
2. STAPLING PATTERN AS PER MFR'S RECOMMENDATIONS.
3. DO NOT STRETCH BLANKETS/MATTINGS TIGHT, ALLOW THE ROLLS TO MOLD TO ANY IRREGULARITIES.
4. IF THERE IS A BERM AT THE TOP OF THE SLOPE, ANCHOR UPSLOPE OF THE BERM.
5. LIME, FERTILIZE AND SEED BEFORE INSTALLATION. PLANTING OF SHRUBS, TREES, ETC SHOULD OCCUR AFTER INSTALLATION.

SLOPE INSTALLATION EROSION CONTROL MATTING

SCALE: NTS



TYPICAL CROSS-SECTION



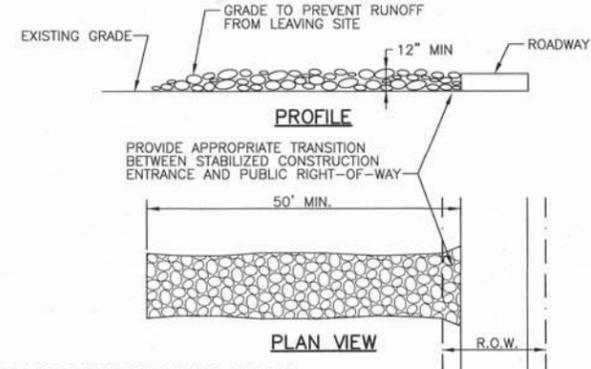
ELEVATION

NOTES:

1. FENCE SHALL NOT BE INSTALLED ON SLOPES STEEPER THAN 2 : 1.
2. JOINTS IN FILTER FABRIC SHALL BE OVERLAPPED 6 INCHES AT POST.
3. USE STAPLES, WIRE RINGS, OR EQUIVALENT TO ATTACH FABRIC TO WIRE FENCE.
4. REMOVE SEDIMENT WHEN IT REACHES 1/3 FENCE HEIGHT.

SILT FENCE

SCALE: NTS



CONSTRUCTION ENTRANCE NOTES:

1. STONE SIZE: 3" - 5" OPEN GRADED ROCK.
2. LENGTH: AS REQUIRED TO BE EFFECTIVE BUT NOT LESS THAN 50 FEET.
3. THICKNESS: NOT LESS THAN 12 INCHES.
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS, 10' MINIMUM.
5. WASHING: WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN PER DETAIL 5, THIS SHEET. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE, AS CONDITIONS DEMAND, AND REPAIR AND CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENTS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
8. LOCATION: THE EXACT LOCATION OF CONSTRUCTION ENTRANCE INSTALLATION SHALL BE DETERMINED IN THE FIELD ACCORDING TO EXISTING SITE CONDITIONS.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

SCALE: NTS



PLANTING NOTES:

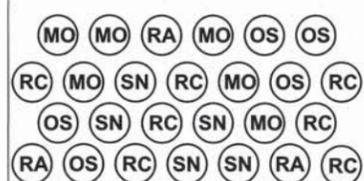
1. PLANTING OF CONTAINERIZED MATERIAL IS TO OCCUR DURING THE COOL SEASON MONTHS (OCT 1-MARCH 31). OTHER PLANTING TIMES MUST HAVE PRIOR AUTHORIZATION FROM THE ENGINEER. HYDROSEEDING SHALL OCCUR FROM APRIL 1 THROUGH JUNE 30 OR FROM SEPTEMBER 1 THROUGH OCTOBER 1. SEEDING THAT OCCURS BETWEEN JULY 1 AND AUGUST 30 WILL REQUIRE IRRIGATION UNTIL 75 PERCENT GRASS COVER IS ESTABLISHED. SEEDING THAT OCCURS BETWEEN OCTOBER 1 AND MARCH 30 WILL REQUIRE A MULCH OR PLASTIC COVER UNTIL 75 PERCENT GRASS COVER IS ESTABLISHED.
2. SELECTED PLANTS, PLANTING AND SEEDING ACTIVITIES SHALL CONFORM WITH THE CODE OF STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN. PLANT MATERIALS TO BE USED WILL BE NATIVE TO THE PACIFIC NORTHWEST.
3. NURSERY GROWN PLANTS SHALL BE PLUGS OR CONTAINERIZED, SOUND, HEALTHY, VIGOROUS PLANTS, FREE OF DEFECTS, DISEASE AND INFESTATION. THE ENGINEER WILL REVIEW PLANT MATERIAL PRIOR TO PLANTING TO VERIFY CONFORMANCE TO THE PLANT SCHEDULE AND TO PLANT CHARACTERISTICS AND RESERVES THE RIGHT TO REQUIRE REPLACEMENT OR SUBSTITUTION OF PLANTS THAT ARE DEEMED UNSUITABLE.
4. PURCHASE SEED IN ACCORDANCE WITH THE PURE LIVE SEED SPECIFICATIONS FOR SEED MIXES. USE SEED WITHIN 12 MONTHS OF TESTING. SEEDS WILL BE CERTIFIED TO BE FREE OF NOXIOUS WEEDS.
5. TACKIFIER AND MULCH WILL BE INCORPORATED INTO THE HYDROSEED MIXTURE.
6. PLANT MATERIAL LAYOUT STACKING TO BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION OF PLANTS. PLANT MATERIAL MAY NOT BE INSTALLED PRIOR TO THE WRITTEN VERIFICATION AND APPROVAL OF THE ENGINEER.
7. PLANTS TO BE DUG, PACKED, TRANSPORTED AND HANDLED WITH CARE TO ENSURE PROTECTION FROM INJURY. STORE PLANTS IN THE MANNER NECESSARY TO ACCOMMODATE THEIR HORTICULTURAL REQUIREMENTS. HEEL-IN PLANTS IF NECESSARY TO KEEP THEM FROM DRYING OUT. KEEP PLANTS SATURATED AND SHADED UNTIL THE ACTUAL TIME OF INSTALLATION. DO NOT LET THEM SIT IN THE SUN OR DRY OUT DURING PLANTING.
8. EXCAVATE PLANT PITS WITH VERTICAL SIDES AND INSTALL PLANTS AS SHOWN ON PLANTING DETAIL 5. BACKFILL WITH TOPSOIL. INCORPORATE GRANULAR POLYMER PELLETS INTO THE PLANTING SOIL PER MANUFACTURERS' SPECIFICATIONS FOR MOISTURE RETENTION. ALL CONTAINERIZED PLANT MATERIAL SHALL BE WATERED ON THE SAME DAY AS PLANTED UNTIL THE BACKFILL SOIL AROUND THE ROOTS OF EACH PLANT IS THOROUGHLY SATURATED. NO MORE PLANTS SHALL BE PLANTED ON ANY DAY THAN CAN BE WATERED ON THAT DAY.
9. ALL PLANT MATERIAL TO BE WARRANTED TO REMAIN ALIVE AND HEALTHY FOR A PERIOD OF ONE YEAR AFTER COMPLETION AND FINAL WRITTEN ACCEPTANCE OF PLANTING. DEAD OR UNHEALTHY PLANTS TO BE REPLACED PER PLANS AND SPECIFICATIONS AND AS DIRECTED BY QWEST.



TOP OF SLOPE PLANTING AREA

TYPICAL PLANT LAYOUT

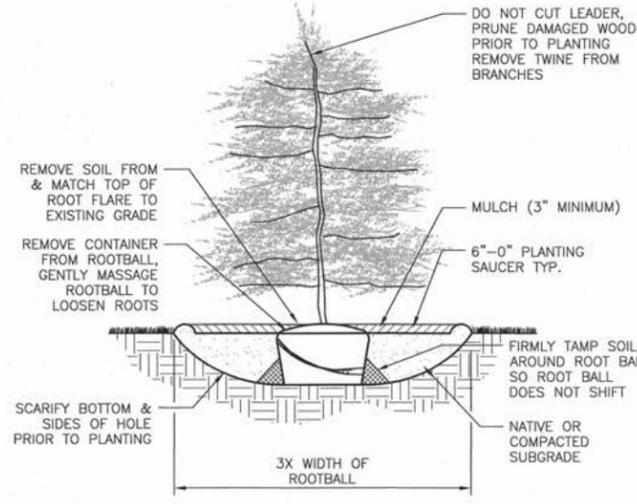
SCALE: NTS



STEEP SLOPE PLANTING AREA

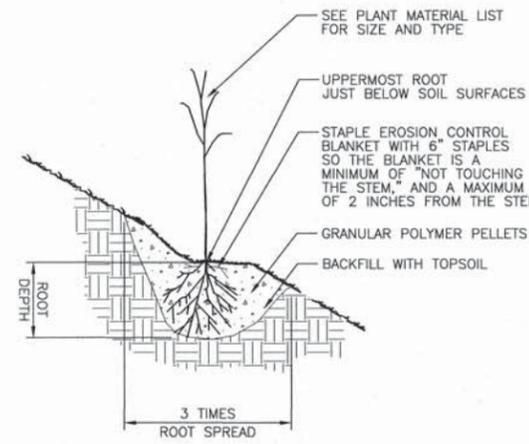
TYPICAL PLANT LAYOUT

SCALE: NTS



EVERGREEN TREE PLANTING DETAIL

SCALE: NTS



SLOPE PLANTING TYPICAL DETAIL

SCALE: NTS



ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	M. BLANCHETTE
DESIGNED	B. SHAHA
DRAWN	M. NAGAMATSU
CHECKED	T. LARSON
PROJECT NUMBER	00000000154268



QWEST - WEST LAKE SAMMAMISH SLIDE REPAIR

STANDARD DETAILS/LANDSCAPE PLANTING PLAN AND NOTES

0 1" 2"

FILENAME: 01C005.dwg SHEET: C005

SCALE: NTS

**Attachment 2
Restoration Plan**

City of Bellevue Application for Critical Areas Land Use Permit



STEEP SLOPE RESTORATION PLAN

1.0 INTRODUCTION

On December 19, 2010, a landslide occurred on a fill embankment on the east side of West Lake Sammamish Parkway SE in Bellevue, Washington. The landslide occurred during or following a significant precipitation event that appears to have saturated the embankment, which resulted in a combination of a sudden sloughing of saturated fill material and debris and erosion associated with surface or subsurface water flowing down the slope. The slide occurred on a Qwest Communications, Inc. (Qwest) easement located on a residential parcel at 158 West Lake Sammamish Parkway SE; the landslide also affected the single-family residence at 204 West Lake Sammamish Parkway SE. Qwest owns and maintains communication equipment that is located in cabinets founded on concrete slabs at the top of the slope within the easement where the landslide occurred. Qwest acquired emergency permits (Bellevue Permit Nos. 10-129569 TJ and 11-111042 TJ) to repair and temporarily stabilize the Qwest cabinets and equipment endangered by the landslide.

In order to remediate the slope failure, Qwest proposes to install rock fill and an underdrain to intercept groundwater and tightline to an infiltration trench in the low point of the property. This approach would re-establish the lost portion of the embankment, and provide stabilization support to the remaining fill embankment.

The restoration plan below is being submitted as part of the Critical Areas Land Use Permit application to permanently stabilize the failed slope, which is regulated as a Steep Slope Geologic Hazard Area by the City of Bellevue.

2.0 PROPOSED RESTORATION PLAN

The proposed placement of the rock fill, drainage improvements, and erosion control measures would provide for improved stability of the remaining fill embankment where the slope failure occurred. The proposed restoration plan below would also increase the habitat value and stability of the remediated steep slope area by establishing native woody vegetation.

Approximately 2,360 square feet of restored steep slope would be planted with native shrub and tree species suitable for the site conditions. Table 1 describes the species, size, spacing, and quantities proposed for installation in the steep slope hazard area. Please see Sheet C004 the attached Project Plans for the location of the steep slope planting area.

Table 1. Steep Slope Planting Area Plant Schedule

Common Name	Scientific Name	Min. Size	Spacing (feet on Center)	Quantity
Red alder	<i>Alnus rubra</i>	2 gallon	15'	9
Oceanspray	<i>Holodiscus discolor</i>	2 gallon	4'	37
Redflowering currant	<i>Ribes sanguineum</i>	2 gallon	4'	37
Snowberry	<i>Symphoricarpos albus</i>	2 gallon	4'	37
Mock orange	<i>Mahonia aquifolium</i>	2 gallon	4'	37

3.0 GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS

The goals of the restoration plan are to control erosion and increase habitat on the restored steep slope. When evaluated against monitoring data, performance standards are used to determine the relative success of the steep slope hazard area restoration project in achieving these goals. The following minimum performance standards are proposed for the Project.

Goal 1: Control Erosion

Objectives:

- 1A. Install erosion control measures on site (silt fencing, straw mulching, coir fabric or equivalent).

Performance Standards:

- 1A1. Inspect site during construction to ensure erosion control measures are installed.
- 1A2. Continue inspections to ensure that TESC maintenance specifications are being observed.
- 1A3. Provide as-built of remediated area to document TESC measures.
- 1A4. Inspect site after construction to ensure erosion control blanket has been installed as specified.
- 1A5. Monitor site during long-term vegetation monitoring for signs of erosion, channelization, and/or increased sedimentation.

Goal 2: Increase Habitat Functions on Restored Steep Slope

Objective:

- 2A. Replant restored steep slope with native tree and shrub vegetation that will mature rapidly to provide cover and add wildlife habitat functions.

Performance Standards:

- 2A1. The project engineer shall supervise the installation of plantings, and confirm that plants have been installed per the approved restoration plan.
- 2A2. Monitor plants to ensure appropriate survival rates.
 - Areas shall meet the performance standards for native shrubs as noted below:
 - Year 1: 100 percent survival of planted stock.
 - Years 2 through 3: minimum of 80 percent survival of planted stock.
 - Desirable native volunteers may be included in plant counts.

4.0 MONITORING PLAN

The restored steep slope would be monitored to demonstrate compliance with applicable permits and to confirm that restoration of the sensitive area has been complete. The monitoring phase of the Project is expected to consist of iterative and corrective measures, such as removing invasive species, and is expected to occur up until a point when native species of trees and shrubs that were installed dominate the area. This goal would be initiated by careful

plant selection, established by monitoring for plant health and survival, and then ensured by documentation of progress.

Monitoring would continue at the restored steep slope for a minimum of 3 years after construction or until the City of Bellevue (City) concurs that site conditions have returned to a naturalized state. Mitigation goals would be considered achieved when the Project team and City agree that plants have become well established and can be expected to survive and self-maintain the area. The exact length of time required for monitoring of the Project is determined both through regulatory requirements and by the growth of the plants themselves. If the area becomes covered with native plants, and there are no foreseeable issues from invasive plants, human disturbance, or erosion, monitoring would become unnecessary. If performance standards are not met in Year 3, monitoring would occur again in Year 4. If third-year performance standards are not met in Year 4, monitoring would occur in Year 5 to provide final documentation of mitigation site conditions.

The monitoring period would commence from the month that the installation is approved. Overview photos would be taken from the same vantage points each year to document overall appearance of the mitigation area before, during, and after construction. Survivorship would be defined as fully healthy and thriving (see below). Monitoring field visits would take place during the growing season of each monitoring year. A monitoring memo would be submitted to the City by the end of each calendar year.

The monitoring memo would include the following components:

1. A description of the site and the monitoring schedule
2. A discussion of the restoration objectives
3. A discussion of the methods used
4. A results section with a summary of plant survivorship and an evaluation of the site with regard to the performance standards
5. Conclusion, including management recommendations, and maintenance and contingency measures if necessary
6. Site photographs

A summary of plant survivorship would list the number and vigor of the planted shrubs. Plants would be considered “dead” when more than 50% of the plant is decadent. The monitoring memo would also list other factors that could affect survival and eventual dominance of the planted material, such as animal herbivory, insect infestation, human disturbance, inadequate growing conditions, disease or other factors. Other site conditions such as areas of bare earth, new or continued erosion, etc., would be noted as appropriate.

5.0 CONTINGENCY PLAN

Information from the annual monitoring effort would be used to identify the need for maintenance or corrective action. If problems are encountered during monitoring, the first step would be to identify the reason for the problem, then to implement an appropriate corrective or maintenance action. These actions would be documented in annual monitoring reports. Contingency measures are provided listed in Table 2.

Table 2. Contingency Measures

Problem	Contingency Measures
Site does not meet plant survivorship requirements	<ul style="list-style-type: none"> • Evaluate reasons for mortality (e.g. poor soil conditions, insufficient moisture, incorrect planting, browsing by wildlife, vandalism). • Address cause for mortality and replant to exceed survivorship requirements (contractor is responsible for replacing plant materials that die in the first year). • Provide protective measures (e.g. rodent fencing, deer repellent, weeding, etc.), if appropriate. • Initiate or modify irrigation practices, if necessary.
Over-competition by invasive species (more than 30% cover in the mitigation area)	<ul style="list-style-type: none"> • Evaluate predominant invasive species in the restoration areas • Initiate invasive species control protocols appropriate to species type, conditions of infestation area (wetland or buffer), and level of infestation (e.g., herbicide application, mowing, etc.)
Evidence of erosion on site	<ul style="list-style-type: none"> • Repair erosion control measures, if necessary. • Add/replace mulch to reduce erosion. • Add additional plant materials, if necessary.