



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

Proposal Name: Weowna Point

Proposal Address: 1258 W Lake Sammamish Pkwy SE

Proposal Description: Review of a Critical Areas Land Use Permit to construct a new single-family residential structure within a steep slope, steep slope buffer, and steep slope structure setback. The proposal includes mitigation and restoration planting, and is supported by a critical areas report and geotechnical report.

File Number: 16-132100-LO

Applicant: Brian Heberling, Lago Mar, LLC

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

Planner: David Wong, Planner

**State Environmental Policy Act
Threshold Determination:** Exempt per WAC 197-11-800 (1)

Director's Decision: Approval with Conditions

Elizabeth Stead, Land Use Director
Development Services Department

Application Date: May 13, 2016
Notice of Application Publication Date: June 30, 2016
Decision Publication Date: August 17, 2017
Project/SEPA Appeal Deadline: August 31, 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.

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Attachments

1. Site Plan
2. Mitigation & Restoration Planting Plan
3. Critical Areas Report (in file)
4. Geotechnical Report (and addendums, in file)
5. Arborist Report (in file)

I. Proposal Description

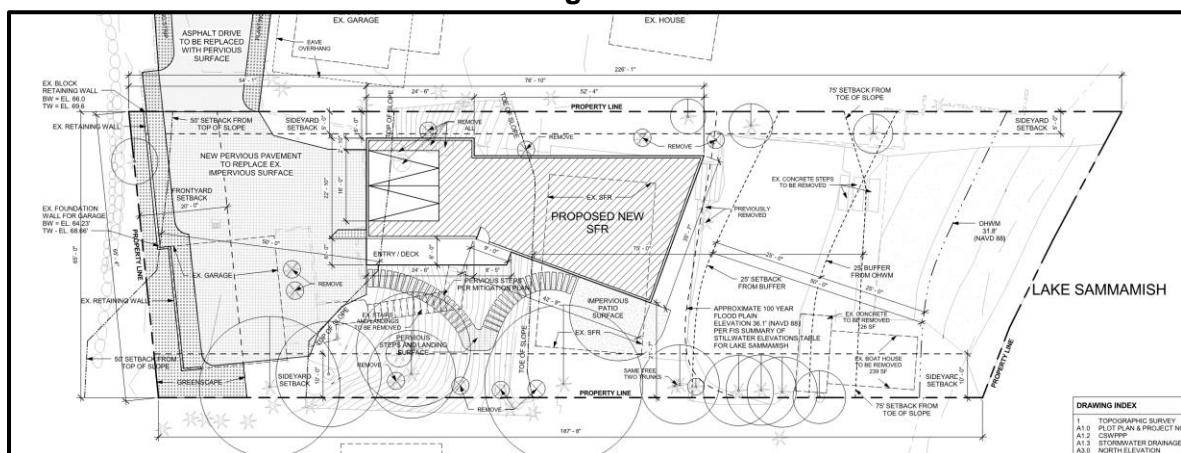
The applicant has requested a Critical Areas Land Use Permit to construct an approximately 1,995 square-foot single-family residential structure within a regulated steep slope critical area, steep slope buffer, and steep slope structure setback. The existing home and garage will be demolished, and the proposed improvements have been organized on site to utilize much of the existing disturbance area. This proposal also includes approximately 4,481 square feet of restoration and mitigation planting within the steep slope, steep slope buffer, steep slope structure setback, and shoreline buffer.

A Critical Areas Land Use permit is required to modify a critical area, critical area buffers, and critical area structure setbacks.

Land Use Code (LUC) 20.25H.120.B prescribes a 50-foot critical area buffer from the surveyed top-of-slope. The request is to permanent modification to a portion of the steep slope critical area, buffer, and structure setback construct a single-family residence and described appurtenances. LUC 20.25H.125 allows for the modification of a critical area and critical area buffer through a critical areas report. The critical areas report is a mechanism by which certain LUC requirements may be modified for a specific proposal.

The critical areas report is intended to provide flexibility for sites where the expected critical areas functions and values are not present due to degraded conditions. The steep slope critical area and buffer on the property are degraded in function and value because they lack the vegetative structural diversity found in higher-quality steep slope critical areas. Therefore, the steep slope critical area and buffer are currently not fully performing their water quality, erosion control and wildlife habitat functions. See Figure 1 below for site layout.

Figure 1



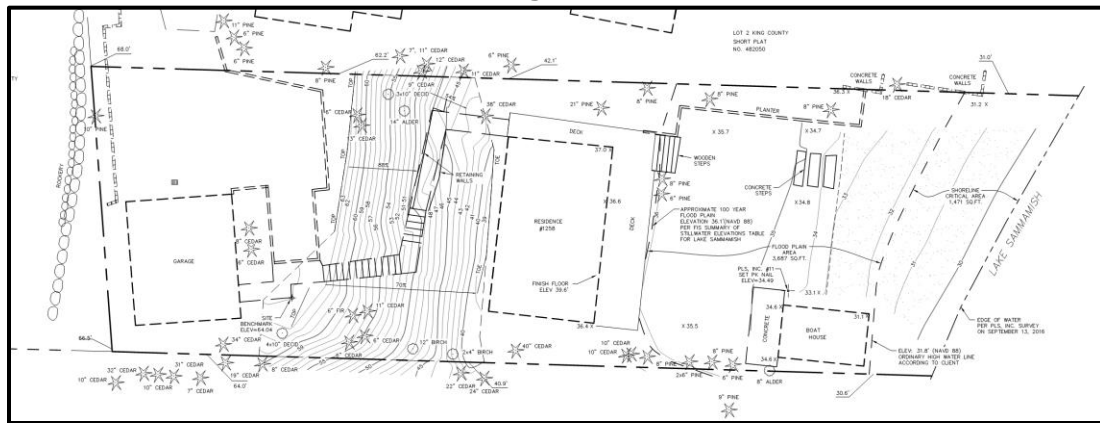
II. Site Description, Zoning, Land Use and Critical Areas

A. Site Description

The subject parcel is 11,151 square feet in size and has access to the Lake Sammamish

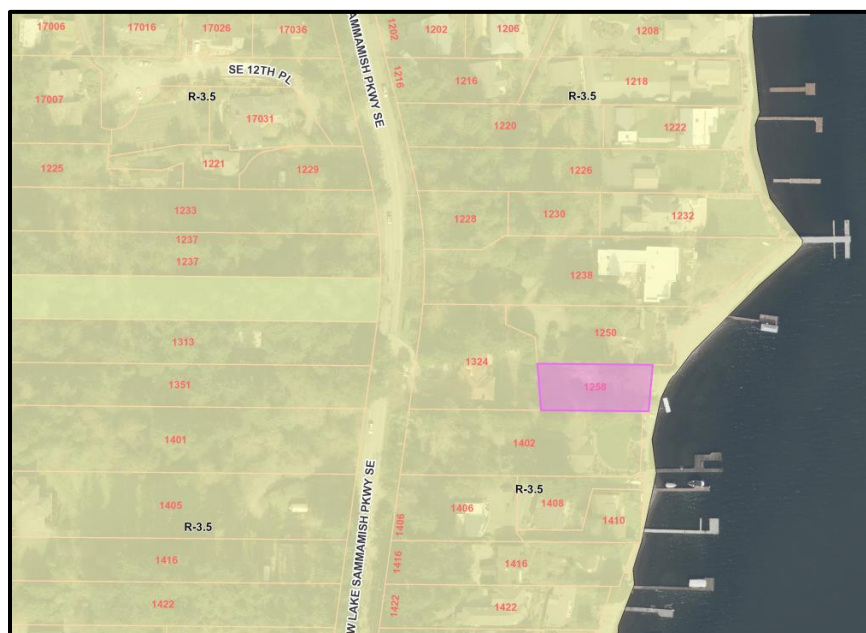
shoreline along the eastern property boundary. The parcel was developed with a 960 square-foot single-family residence, detached garage, and driveway with connection to W Lake Sammamish Pkwy SE in 1928. A steep slope critical area with an east-facing aspect exists in the middle of the property and continues off-site to the adjacent parcels to the north and south. Floodplain associated to Lake Sammamish is also found in the eastern portion of the site. Some native vegetation, including western redcedar (*Thuja plicata*), Douglas-fir (*Pseudotsuga menziesii*), salal (*Gaultheria shallon*), beaked hazelnut (*Corylus cornuta*), tall Oregon grape (*Mahonia aquifolium*), sword fern (*Polystichum munitum*), and bracken fern (*Pteridium aquilinum*) can be found on-site but are mostly located adjacent to the property boundaries. Himalayan blackberry (*Rubus armeniacus*), English ivy (*Hedera helix*), and non-native holy (*Ilex spp.*) inhabit patches of the steep slope and steep slope buffer. See Figure 2 for more information.

Figure 2



B. Zoning

The property is zoned R-3.5, single-family residential. See Figure 3 for a zoning map.



C. Land Use Context

The site has a Comprehensive Plan Land Use Designation of SF-M (Single-Family Medium Density). The site is bounded to the north, south, and west by single-family residential development, and to the east by Lake Sammamish.

D. Critical Areas Functions and Values

i. Shorelines

Shorelines provide a variety of functions including shade, temperature control, water purification, woody debris recruitment, channel, bank and beach erosion, sediment delivery, and terrestrial-based food supply (Gregory et al. 1991; Naiman et al. 1993; Spence et al. 1996). Shorelines provide a wide variety of functions related to aquatic and riparian habitat, flood control and water quality, economic resources, and recreation, among others. Each function is a product of physical, chemical, and biological processes at work within the overall landscape. In lakes, these processes take place within an integrated system (ecosystem) of coupled aquatic and riparian habitats (Schindler and Scheuerell 2002). Hence, it is important to have an ecosystem approach which incorporates an understanding of shoreline functions and values.

ii. Habitat Associated with Species of Local Importance

The increase in human settlement density and associated intensification of land use known as urbanization 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.

Properties within the Shoreline and Critical Area Overlays are part of the city's shoreline master program and are classified as environmentally sensitive. The master program

recognizes the site as a shoreline residential environment subject to the provisions of the City's Shoreline Master Program as discussed below.

iii. 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 provides 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:

The site is located in the R-3.5 zoning district. Development of a single-family residence is consistent with the allowed development of this zoning district. The plans submitted generally demonstrate conformance with zoning dimensional standards. As part of the building permit conformance with the dimensional standards will be confirmed.

B. Consistency with Land Use Code Critical Areas Performance Standards:

The City of Bellevue Land Use Code Critical Area 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 buffer. This site contains a steep slope with a 50-foot buffer and a 75-foot toe-of-slope structure setback. The project is subject to the following performance standards which are reviewed below.

C. Consistency with Performance Standards for Steep Slopes 20.25H.125

Development within a landslide hazard, 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;

The proposed single-family structure includes minimal alteration to the existing grade outside the footprint area and has been designed to incorporate a bridge-like connection between the garage portion and the main residence to avoid unnecessary alterations to the slope. The foundation for the single-family residence has been designed for a two tier configuration to further minimize alteration.

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

Structures and improvements have been located over degraded portions of the steep slope critical area, buffer and structure setback to avoid impacts to the shoreline buffer, structure setback, and 100-year floodplain. The configuration of the new single-family home and improvements minimize the non-hazard tree removal to seven trees (3-7" cherry, 1-8" wester redcedar, 1-33" western redcedar, 1-20" western redcedar, and 1-9" Hinoki cypress).

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

The geotechnical review of the project found that proposal's use of a small foundation wall along the western side of the single-family residence will *"support the base of the slope and provide more stability to the slope..."* provided that project utilizes the foundation and foundation wall recommendations in the report (Geotechnical Performance Standards Dec. 8, 2016, pg. 2). See section IX for condition of approval.

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 walls;

Retaining walls and foundation walls have been proposed to retain existing contours or the steep slope outside of the footprint to the maximum extent possible.

5. Development shall be designated to minimize impervious surfaces within the critical area and critical area buffer.

Development has been organized such that more than 80% of the existing disturbance area will be utilized, this includes the original driveway area and existing home footprint. In addition, the project proposes to utilize pervious materials for the access walkway to the area below the slope and for the patio within the toe-of-slope structure setback.

6. Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regarding 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;
Changes in grade outside of the foundation have been limited to that which allow for access and maneuverability to the garage, and have been designed to occur in the

steep slope buffer. No changes of grade are proposed outside of the building footprint within the steep slope critical area.

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 foundations.**

Foundation walls have been utilized to the greatest extent in this design to provide greater safety and stability to the existing steep slope.

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;**

The portion of the site impacted by the proposal will utilize a two-tiered foundation along with a bridge-like structure to connect the upper garage and garage foundation portion of the structure to the main residence. This design approach minimizes topographic modification and conforms to the existing topography where feasible.

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**

The proposal utilizes a bridge-like configuration to connect the foundation below a portion of the garage to the main structure, therefore reducing the impact to the steep slope below that which pole-type or pile construction would have. No fill-based construction 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.**

A mitigation and restoration plan (See Attachment 2) containing 4,481 square feet of native planting and meeting the requirements of LUC 20.25H.210 has been submitted within this request. See section IX for condition of approval.

D. Consistency with Critical Areas Report LUC 20.25H.230

The applicant supplied a complete critical areas report prepared by Altmann Oliver Associates, LLC, a qualified professional. The report met the minimum requirements in LUC 20.25H.250.

E. Consistency with Critical Areas Report LUC 20.25H.140 & 20.25H.145

Modification of a steep slope buffer requires a critical areas report as part of the application for a Critical Area Land Use Permit. The applicant has obtained the services of a qualified geotechnical engineering company to study the site and document the observed conditions. Staff has reviewed the following documents:

Transmittal Letter – Geotechnical Engineering Study (Dec. 19, 2014) prepared by Thor Christensen, Professional Engineer & D. Robert Ward, Professional Engineer (in file)

Geotechnical Performance Standard (Dec. 12, 2016) prepared by D. Robert Ward, Professional Engineer (in file)

Project Update (May 8, 2017) prepared by D. Robert Ward, Professional Engineer (in file)

The geotechnical analysis documented existing site conditions and documents that no signs of “...*past or potential deep-seated landslide moments*...” were observed at the site. The geotechnical engineer also provided recommendations for foundation and foundation wall construction, seismic construction, and drainage. See section IX for conditions of approval, and for information on requirements for geotechnical monitoring and hold harmless letter submittal.

IV. Public Notice and Comment

Application Date:	May 13, 2016
Public Notice (500 feet):	June 30, 2016
Minimum Comment Period:	July 14, 2016

The Notice of Application for this project was published in the City of Bellevue weekly permit bulletin on June 30, 2016. It was mailed to property owners within 500 feet of the project site. No comments have been received from the public as of the writing of this staff report.

V. Summary of Technical Reviews

Clearing and Grading:

The Clearing and Grading Division of the Development Services Department has reviewed the proposed 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 proposal is exempt from SEPA review, per WAC 197-11-800 and BCC 22.01.032. Construction of a single-family residence, even when located in a critical area, is a categorical exemption.

VII. Decision Criteria

A. Critical Areas Report Decision Criteria-Proposals to Reduce Regulated Critical Area Buffer LUC 20.25H.255.

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

1. The proposal includes plans for restoration of degraded critical area or critical area buffer functions which demonstrate a net gain in overall critical area or critical area buffer functions;

Finding: The proposal includes plans for restoration of a degraded steep slope, steep slope buffer, steep slope structure setback, and shoreline buffer areas currently containing an existing single-family residence, storage structure, and non-native, invasive vegetation with approximately 4,481 square feet of native vegetation. In addition to the permanent modifications to the critical areas, buffers and structure setbacks, mitigation for seven (7) non-hazardous trees will be required. Restoration activities will result in overall net gain in critical area and critical area buffer functions by increasing slope stability and preventing erosion in the steep slope critical area and steep slope critical area buffer. The improvements will also provide future opportunity for habitat in steep slope and shoreline buffer, and will increase water quality of stormwater entering into the shoreline critical area of Lake Sammamish.

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

Finding: The proposed restoration plan will result in overall net gain in critical area and critical area buffer functions to the ecosystem by removing invasive species; increasing native species diversity; and improving native species habitat for the steep slope, steep slope buffer, shoreline buffer, and shoreline.

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

Finding: In addition to the mentioned stormwater improvements associated with native planting, the proposal includes the use of pervious surface materials for the access walkway to the lower part of the slope and the patio. This will decrease the impervious surface area associated with areas of access to the single-family residence.

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

Finding: This is a proposal to impact a steep slope critical area and to reduce a steep slope buffer and structure setback. The applicant is proposing mitigation proportional to the anticipated impact and has included a mitigation & restoration plan with the proposal. To ensure installation and appropriate maintenance of the proposed and required mitigation the applicant is required to submit a financial security device meeting the requirements of LUC 20.40.490. Mitigation measures must be installed before occupancy is granted and maintenance of required plantings is required for a period of five years. **See section IX for condition of approval.**

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

Finding: The proposed single-family residence has been designed to utilize more than 80% of the footprint of the existing single-family dwelling, and would result in a net increase of only 229 square feet of new impervious surface on the lot. The requested modification of approximately 1,673 square feet has been mitigated by restoring the degraded steep slope, steep slope buffer, and shoreline buffer on-site with approximately 4,481 square feet of native trees, shrubs, and groundcovers, including tree mitigation for seven (7) non-hazardous trees. Installation of native vegetation will rehabilitate the degraded conditions of the steep slope, steep slope buffer, and shoreline buffer on and off-site, and assist in mitigating stormwater runoff created by this project. **See section IX for condition of approval.**

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

Finding: The proposal to construct a new single-family residence maintains consistency with the surrounding residential land use district.

B. Critical Areas Land Use Permit Decision Criteria 20.30P

The Director may approve or approve with modifications an application for a critical areas land use permit if:

1. The proposal obtains all other permits required by the Land Use Code;

Finding: The applicant must obtain required development permits. A construction permit is required. **See Conditions of Approval in Section IX of this report.**

2. The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;

Finding: The single-family residential structure, foundation & foundation wall, and native landscaping utilize the best available construction, design, and development techniques. Degraded slope, slope buffer, and shoreline buffer conditions have been documented, and will be addressed through the mitigation and restoration landscaping to increase the level of function of the steep slope critical area and steep slope buffer. **See Conditions of Approval in Section IX of this report.**

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

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

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

Finding: The proposed activity will not impact public facilities and adequate services are available to serve the proposed project.

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

Finding: The proposal seeks modification for the steep slope, steep slope buffer, and steep slope structure setback to facilitate construction of a single-family residential structure. Included with this proposal is a mitigation plan which provides approximately 4,481 square feet of native plantings to restore a degraded steep slope, steep slope buffer, shoreline buffer, and non-hazardous trees proposed for removal. The applicant is required to follow the recommendation included in the project geotechnical report, which shall be verified by an inspection made by a qualified engineer. **See Conditions of Approval in Section IX of this report.**

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

Finding: As discussed in Section III and V of this report, the proposal complies with all other applicable requirements of the Land Use Code.

VIII. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, SEPA, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **approve with conditions** the proposal to modify the steep slope critical area, steep slope buffer, and steep slope structure setback at 1258 W Lake Sammamish Pkwy SE.

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 Clearing and Grading Permit, Building Permit, or other necessary development permits within one year of the effective date of the approval.

IX. Conditions of Approval

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

<u>Applicable Ordinances</u>	<u>Contact Person</u>
Clearing and Grading Code- BCC 23.76	Tom McFarlane, 425-452-5207
Land Use Code- BCC 20.25H	David Wong, 425-452-4282
Noise Control- BCC 9.18	David Wong, 425-452-4282

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

1. Building Permit: Approval of this Critical Areas Land Use Permit does not constitute an approval of a development permit. A building permit for the single-family residential structure is required.

Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use

2. Approved Modifications: The steep slope critical area, steep slope buffer, and steep slope structure setback modifications approved are for the construction of the single-family residential structure only as depicted in the project site plan (Attachment 1), and does not authorize additional site changes outside of this project scope. The modifications do not allow future structures or improvements to be located in the critical areas, buffers, or structure setbacks without approval of a Critical Areas Land Use Permit and geotechnical evaluation.

Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use

3. Geotechnical Recommendations: The project shall be constructed per the recommended procedures and practices in the geotechnical report dated December 19, 2014 (addendums dated December 8, 2016 & May 8, 2017). A letter of record from the geotechnical engineer shall be provided prior to issuance of the building permit.

Authority: Land Use Code 20.30P.140, Clearing & Grading Code 23.76.050
Reviewer: David Wong, Land Use; Tom McFarlane, Clearing & Grading

4. Mitigation & Restoration Planting: Plans submitted for the building permit must provide 4,481 square feet of restoration planting that adheres to the minimum standards found in the City of Bellevue's Critical Areas Handbook. In addition, seven (7) native trees (four conifers, three deciduous) shall be planted as mitigation of seven (7) non-hazard trees within the steep slope or the buffers associated with the slope and shoreline.

Authority: Land Use Code, 20.30P.140
Reviewer: David Wong, Land Use

5. Rainy Season restrictions: Due to the proximity to steep slope critical area and Lake Sammamish, no clearing and grading activity may occur during the rainy season, which is defined as October 1 through April 30 without written authorization of the Development Services Department. Should approval be granted for work during the

rainy season, increased erosion and sedimentation measures, representing the best available technology must be implemented prior to beginning or resuming site work.

Authority: Bellevue City Code 23.76.093.A,
Reviewer: Tom McFarlane, Clearing and Grading

6. Maintenance & Monitoring: The mitigation and restoration areas shall be maintained and monitored for five (5) years. Annual monitoring reports are to be submitted to Land Use each of the five years at the end of each growing season or October 31st. Photos from selected points, determined by the City during the pre-construction inspection, will be included in the monitoring reports to document the planting. The following schedule and performance standards apply and are evaluated in the report each year:

Year 1 (from date of plant installation)
100% survival of all install plants or replanting in following dormant season to reestablish 100%
15% minimum woody vegetative coverage
10% maximum coverage of invasive plants in planting area

Year 2 (from date of plant installation)
85% survival of all install plants and 100% of all trees or replanting in the following dormant season to reestablish 100%
20% minimum woody vegetative coverage
10% maximum coverage of invasive plants in planting area

Year 3-5 (from date of plant installation)
85% survival of all install plants and 100% of all trees or replanting in the following dormant season to reestablish 100%
25% (yr. 3) and 40% (yr. 5) minimum woody vegetative coverage
10% maximum coverage of invasive plants in planting area

The reports along with a copy of the planting plan can be sent to David Wong at dwong@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: David Wong, Land Use

7. Planting Cost Estimate: A cost estimate for the proposed mitigation and restoration plant installation must be submitted prior to building permit issuance.

Authority: Land Use Code 20.30P.160
Reviewer: David Wong, Land Use

8. Maintenance Surety: A maintenance surety, based on the cost estimate above is required and shall equal 20 percent of the cost of the plants or 100% of the cost of maintenance contract. The maintenance surety is required prior to building permit issuance.

Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use

9. Hold Harmless Agreement: The applicant shall submit a hold harmless agreement in a form approved by the City Attorney which releases the City from liability for any damage arising from the location of improvements within a critical area, critical area buffer, and critical area structure setback in accordance with LUC 20.30P.170. The hold harmless agreement is required to be recorded with King County prior to clearing and grading permit issuance. Staff will provide the applicant with the hold harmless form.

Authority: Land Use Code 20.30P.170
Reviewer: David Wong, Land Use

10. Clearing Limits and Temporary Erosion & Sedimentation Control: Prior to the initiation of any clearing or grading activities, clearing limits and the location of all temporary erosion and sedimentation control measure shall be field staked for approval by the on-site clearing and grading inspector.

Authority: Clearing & Grading Code 23.76.060 & 23.76.090
Reviewer: Tom McFarlane, Clearing & Grading

11. Geotechnical Monitoring: The project geotechnical engineer of record or his representative must be on site during critical earthwork operations. The geotechnical engineer must monitor and test soil cuts and fills, subgrades for footings and retaining walls, utility trench backfill, and any unusual seepage, slope, or subgrade conditions.

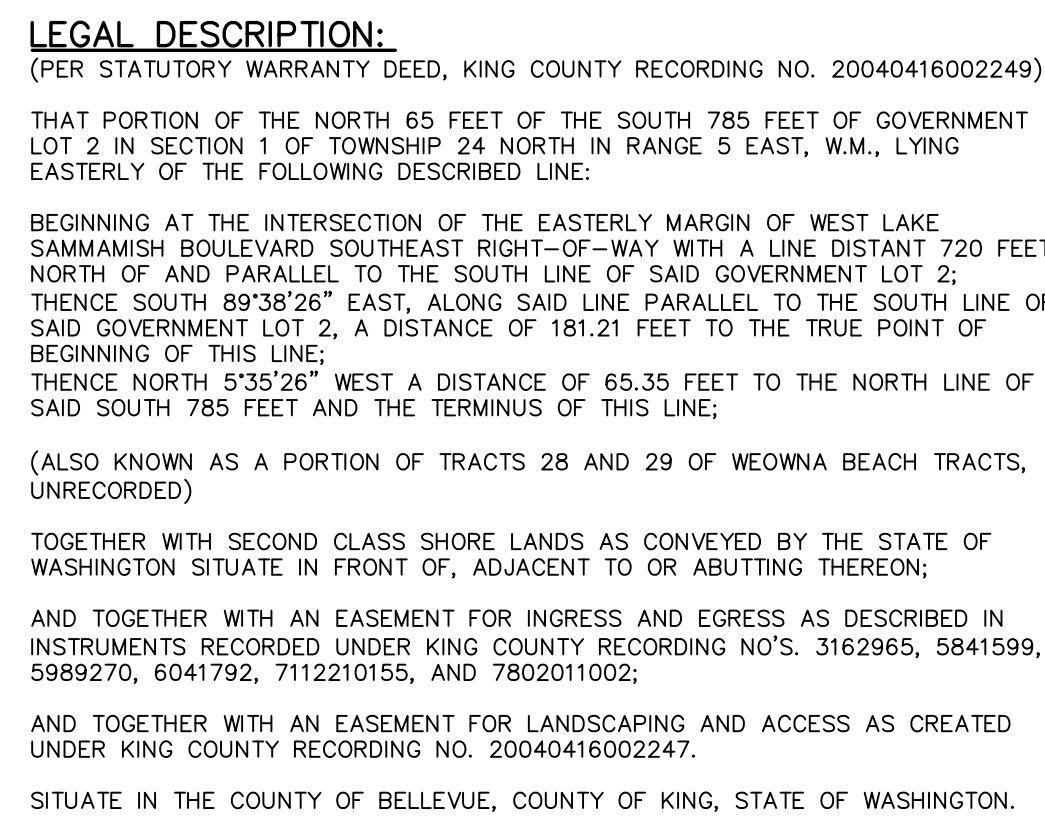
Authority: Clearing & Grading Code 23.76.050
Reviewer: Tom McFarlane, Clearing & Grading

12. 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: David Wong, Land Use

SE 1/4 NW 1/4 SEC. 1
TOWNSHIP 24 NORTH, RANGE 5 EAST W.M.
KING COUNTY, WASHINGTON

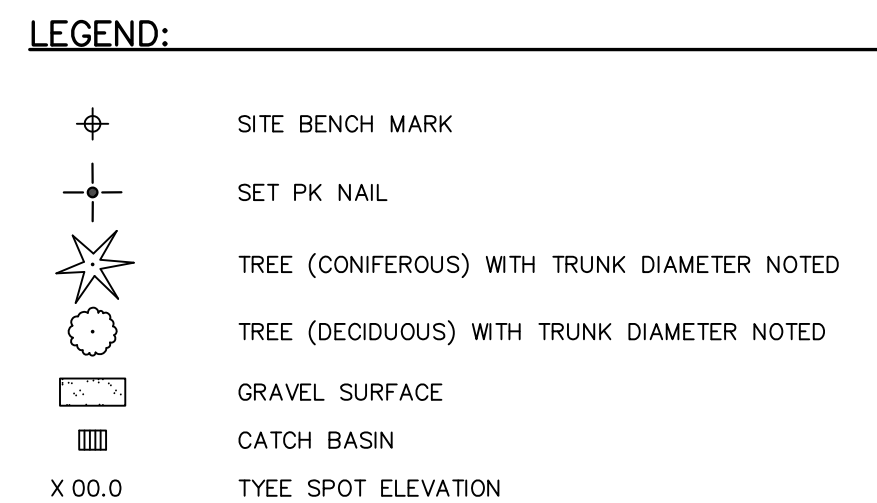


- 1.) PURPOSE OF SURVEY: THE PURPOSE OF THIS SURVEY WAS TO DEVELOP A 1-FOOT CONTOUR INTERVAL TOPOGRAPHIC MAP OF THE SUBJECT PROPERTY FOR USE AS A PLANNING AND DESIGN BASE BY OTHERS.
- 2.) HORIZONTAL DATUM: THE OVERALL HORIZONTAL DATUM FOR THIS PROJECT IS NAD 83/2011, WASHINGTON COORDINATE SYSTEM, NORTH ZONE, BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.
- 3.) VERTICAL DATUM: THE VERTICAL DATUM FOR THIS SURVEY IS NAVD 88, BASED ON GPS MEASUREMENTS USING THE WASHINGTON STATE REFERENCE NETWORK.
- 4.) FIELD SURVEY METHODOLOGY: FIELD MEASUREMENTS FOR THIS SURVEY WERE PERFORMED USING A 5-SECOND OR BETTER ELECTRONIC TOTAL STATION.
- 5.) INSTRUMENT CALIBRATION: ALL MEASURING INSTRUMENTS EMPLOYED IN THIS SURVEY HAVE BEEN MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- 6.) THE PLS. INC. PORTION OF THIS MAP GRAPHICALLY REPRESENTS CONDITIONS AND FEATURES EXISTING AT THE TIME OF THIS SURVEY ONLY, WHICH WAS PERFORMED DURING FEBRUARY 2, 2016 AND SEPTEMBER 13 OF 2016.
- 7.) THIS SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF THE CLIENT NAMED HEREON. ITS' USE DOES NOT EXTEND TO ANY UNNAMED PERSON OR PERSONS WITHOUT THE EXPRESS RECREATION BY THIS SURVEYOR NAMING SUCH PARTY.
- 8.) FOR YOUR INFORMATION: 0.0833 FEET = 1 INCH ON THE GROUND
- 9.) KING COUNTY TAX PARCEL NUMBER: 9253900150
- 10.) THE PROPERTY AND PUBLIC RIGHT-OF-WAY LINES SHOWN HEREON WERE PROVIDED BY TTEE SURVEYORS.
- 11.) AREA OF PARCEL: 13,381 ± SQ. FT. (0.31 ACRES) BASED ON SEPTEMBER 2016 SHORELINE.
- 12.) FOR CLARITY PURPOSES WE HAVE USED GRAPHIC SYMBOLS TO REPRESENT SOME FEATURES ON THE MAP, SUCH AS UTILITIES, TREES AND FENCE. THE DEFAULT SIZE OF THOSE SYMBOLS MAY NOT REFLECT THE TRUE SIZE OF THE FEATURE THAT WAS MAPPED.

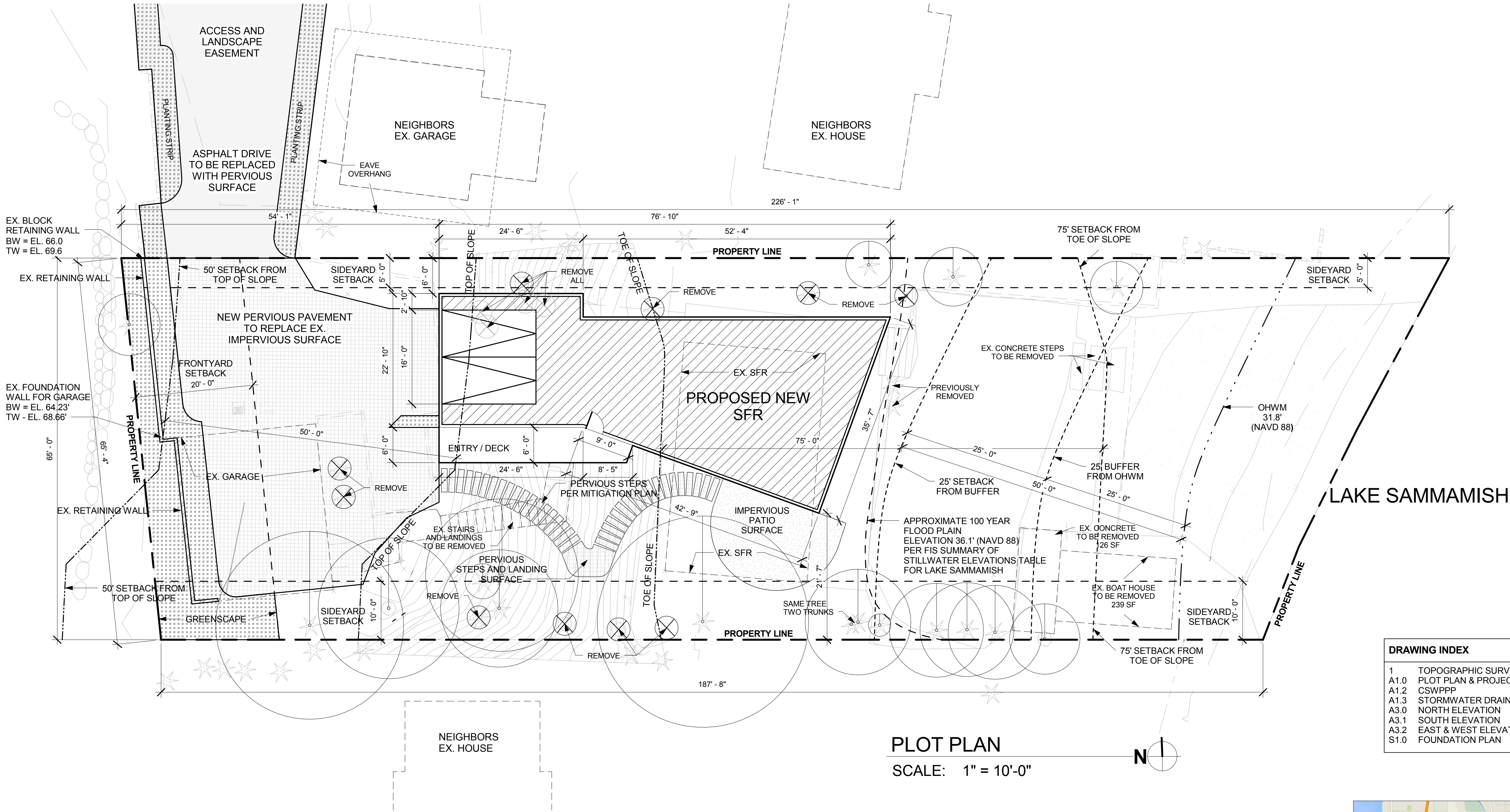
THIS TOPOGRAPHIC MAP IS A COMPOSITE OF MAPPING BY PLS, INC. (2016) AND TYEE SURVEYORS (2014). THE ELEMENTS CONTRIBUTED BY EACH SURVEY FIRM ARE AS FOLLOWS:

PLS, INC.: ALL TREES, SURFACE FEATURES AND CONTOURS IN SECTION A SECTION B, AND SECTION C, AND 100 YEAR FLOOD PLAIN LINE.

TYEE SURVEYORS: ALL OTHER SURFACE FEATURES, STRUCTURE FOOTPRINTS AND THE PARCEL BOUNDARY.

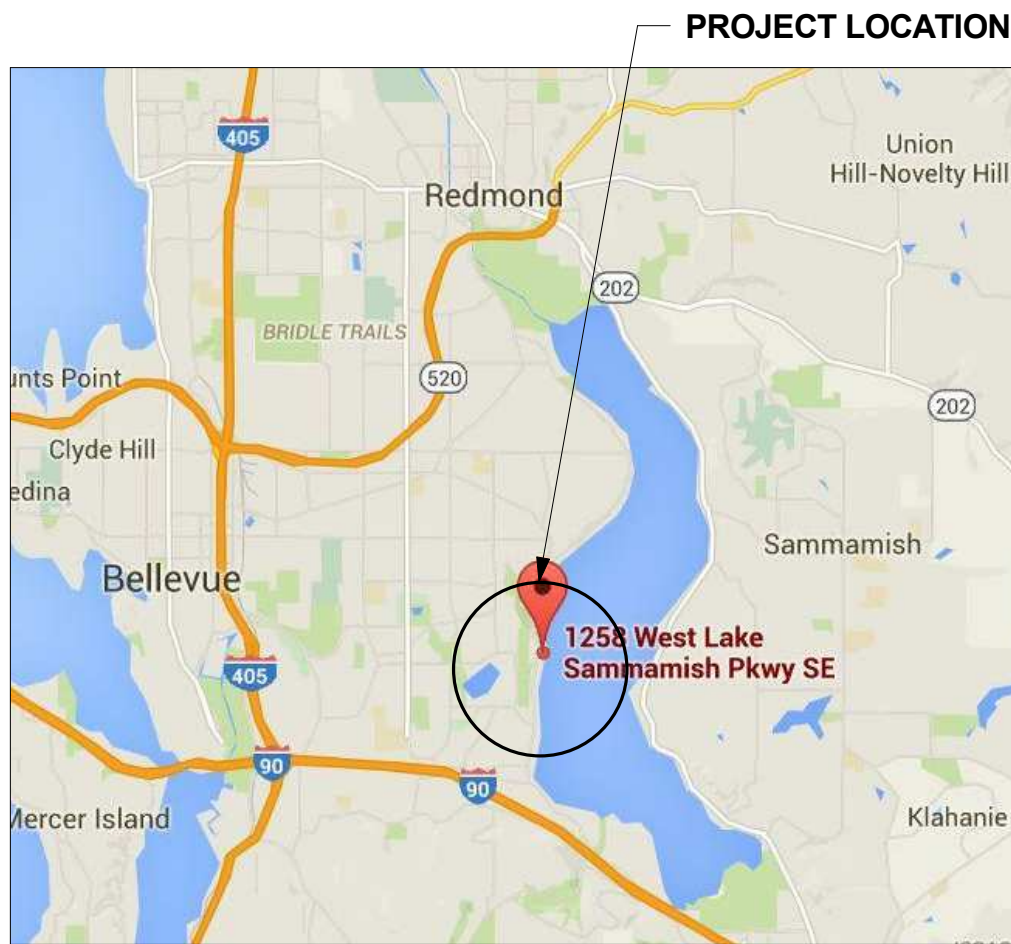


SHEET TITLE: TOPOGRAPHIC SURVEY		CLIENT: BRIAN HERBERLING	
DRAWN BY: BPM		CHECKED BY: BVP	
SCALE: 1" = 10'		DATE: OCT 20, 2016	
JOB NO: 16012			
DRAWING NAME: 16012 TOPO.DWG			
SHEET 1 of 1			



DRAWING INDEX

1	TOPOGRAPHIC SURVEY
A1.0	PLOT PLAN & PROJECT NOTES
A1.2	CSWPPP
A1.3	STORMWATER DRAINAGE PLAN
A3.0	NORTH ELEVATION
A3.1	SOUTH ELEVATION
A3.2	EAST & WEST ELEVATIONS
S1.0	FOUNDATION PLAN



VICINITY MAP

SCALE: N.T.S.

245 - 1258 LAKE SAMM SFR

1258 WEST LAKE SAMMAMISH PKWY SE
BELLEVUE, WA 98008

PROJECT # 16-132103-DC
ZONE: R 3.5
LOT SIZE: 12,770SF
USE TYPE: RESIDENTIAL (SINGLE FAMILY)

PROJECT DESCRIPTION: NEW CONSTRUCTION, SINGLE FAMILY
RESIDENCE

TAX ID NUMBER: 925390-0150

TOTAL NEW & REPLACED IMPERVIOUS SURFACE: 3,121 SF

LEGAL DESCRIPTION: WEONA BEACH UNREC POR OF S 5 FT
OF TR 28 & TR 29 LY ELY OF A LN BAAP ON S LN TR 29 181.21 FT E
OF ELY MGN CO RD TH N 05-35-26 W 65.35 FT TO N LN SD S 5 FT
TR 28 & TERMINUS SD LN & SH LDS ADJ

LOT COVERAGE

LOT AREA 13,381 SF

PROTECTED AREA
STEEP SLOPE 2,507 SF
100 YEAR FLOOD PLAIN 3,687 SF
SHORELINE 1,471 SF
LOT COVERAGE 5,716 SF

ALLOWABLE 5,716 x .35 = 2,001 SF

PROPOSED SFR 1,995 SF

PROPOSED 1,995 SF < ALLOWED 2,001 SF

IMPERVIOUS SURFACES

LOT AREA 13,381 SF
LOT AREA x .5 = 6,691 SF

NEW AND REMAINING
IMPERVIOUS SURFACES

SFR = 1,995 SF

PROPOSED 1,995 SF < ALLOWED 6,691 SF

REQUIRED GREENSCAPE: PER LUC 20.20.010

FRONT YARD GREENSCAPE
TOTAL AREA = 1,309 SF - 50% REQUIRED = 654.50 SF
GREENSCAPE PROVIDED = 656 SF

PROVIDED - 656 SF > REQUIRED - 654.50 SF

FAR - FLOOR AREA RATIO

1ST FLOOR = 1,205 SF
2ND FLOOR = 1,313 SF
3RD FLOOR (INC. GARAGE) = 1,784 SF

TOTAL = 4,302 SF

LOT AREA x .5 = (13,381 x .5 = 6,691 SF)

PROPOSED 4,302 SF < ALLOWED 6,691 SF

REQUIRED SET BACKS: PER LUC 20.20.010

FRONT	20'-0" (MIN)	48'-0"
SIDE	5'-0" (MIN)	5'-0"
SIDE	5'-0" (MIN)	10'-0"
SIDE TOTAL	15'-0"	15'-0"
SHORELINE	25'-0" FROM 25' BUFFER / 50' FROM OHWM	50'-0"

SPOT ELEVATIONS FOR HEIGHT CALCULATIONS:

A = 64.00	N = 36.33
B = 64.00	O = 36.75
C = 64.00	P = 37.67
D = 63.83	Q = 37.83
E = 60.00	R = 39.50
F = 52.00	S = 43.58
G = 44.25	T = 46.92
H = 38.11	U = 57.33
I = 38.17	
J = 37.42	
K = 36.75	
L = 36.58	
M = 36.50	

TOTAL = 972.33/21 = 46.30 46' - 4" AVE. GRADE

MAX ALLOWABLE (FLAT ROOF) = 76' - 4"
PROPOSED (FLAT ROOF / TOP OF PARAPET) = 75' - 6"

MAX FACADE HEIGHT - 39' - 6" FROM EX. GRADE

CONSTRUCTION ACCESS

REASON: TO REDUCE THE AMOUNT OF MUD, DIRT, ROCKS, ETC.TRANSPORTED ONTO PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF.

SYMBOL: CE

TREE PROTECTION

REASON: TO PROTECT SIGNIFICANT TREES FROM LIFE OR HEALTH THREATENING DAMAGE DURING NEARBY CONSTRUCTION ACTIVITIES.

SYMBOL: TP

FILTER FENCE

REASON: TO INTERCEPT & DETAIN SMALL AMOUNTS OF SEDIMENT UNDER SHEET FLOW CONDITIONS FROM DISTURBED AREAS DURING CONSTRUCTION.

SYMBOL: FF

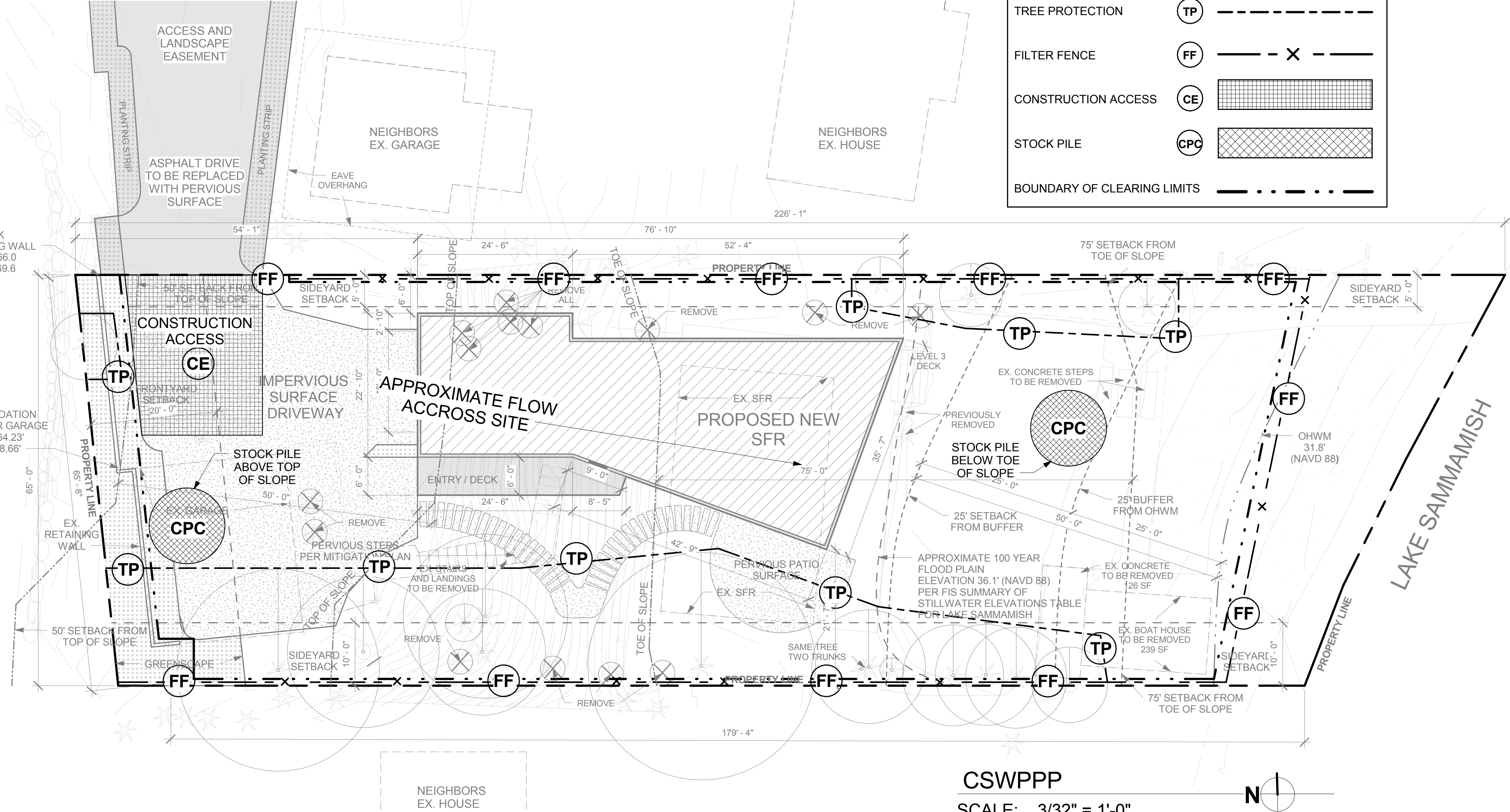
COVERED STOCK PILE

REASON: TO PROVIDE IMMEDIATE TEMPORARY EROSION PROTECTION TO SLOPES AND DISTURBED AREAS THAT CANNOT BE COVERED BY MULCHING & MATTING

SYMBOL: CPC

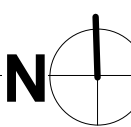
EROSION CONTROL PLAN NOTES

- ALL CLEARING AND GRADING CONSTRUCTION MUST BE IN ACCORDANCE WITH CITY OF BELLEVUE (COB) CLEARING AND GRADING CODE, CLEARING AND GRADING 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 DEVELOPMENT SERVICES (DSD) PRIOR TO CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL 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.
- APPROVAL OF THIS EROSION/SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- A COPY OF THE APPROVED PLANS AND DRAWINGS MUST BE ON-SITE DURING CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRES OR RELATED PERMITS PRIOR TO BEGINNING CONSTRUCTION.
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
- THE FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER TO NOT LEAVE THE SITE.
- 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 NEARLY 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 BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- 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.
- AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT.
- THE CONTRACTOR MUST MAINTAIN A SWEEPER ON SITE DURING EARTHWORK AND IMMEDIATELY REMOVE SOIL THAT HAS BEEN TRACKED ONTO PAVED AREAS AS A RESULT OF CONSTRUCTION.
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- ANY EXCAVATED MATERIAL REMOVED FROM THE CONSTRUCTION SITE AND DEPOSITED ON PROPERTY WITHIN CITY LIMITS MUST BE DONE IN COMPLIANCE WITH A VALID CLEARING AND 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.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 48 HOURS FOLLOWING A MAJOR STORM EVENT.
- FINAL SITE GRADING MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING STRUCTURES AT A MINIMUM OF 5% SLOPE, PER THE INTERNATIONAL RESIDENTIAL CODE (IRC) R401.3.



CSWPPP

SCALE: 3/32" = 1'-0"



EROSION CONTROL LEGEND

TREE PROTECTION

TP

FILTER FENCE

FF

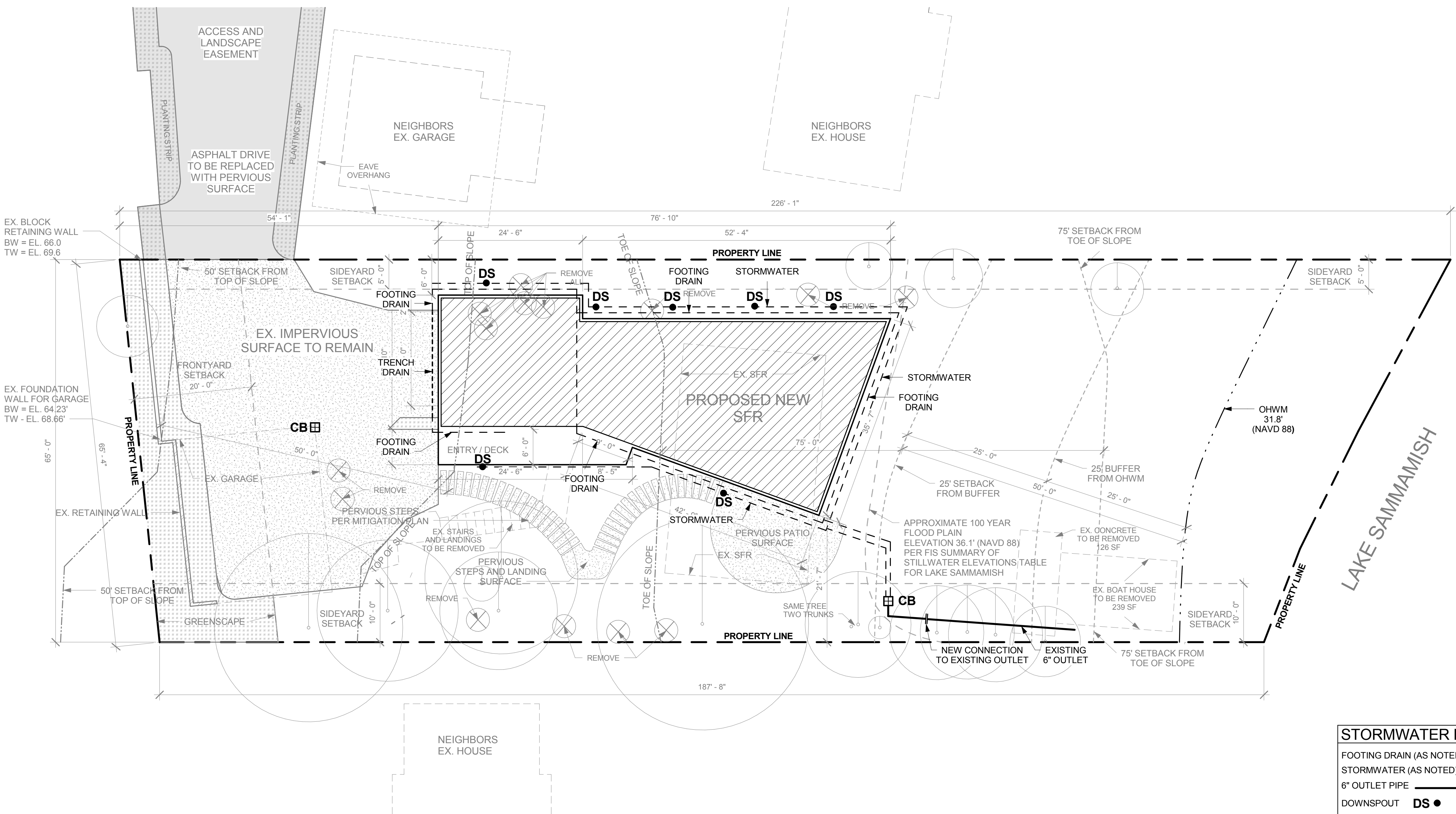
CONSTRUCTION ACCESS

CE

STOCK PILE

CPC

BOUNDARY OF CLEARING LIMITS

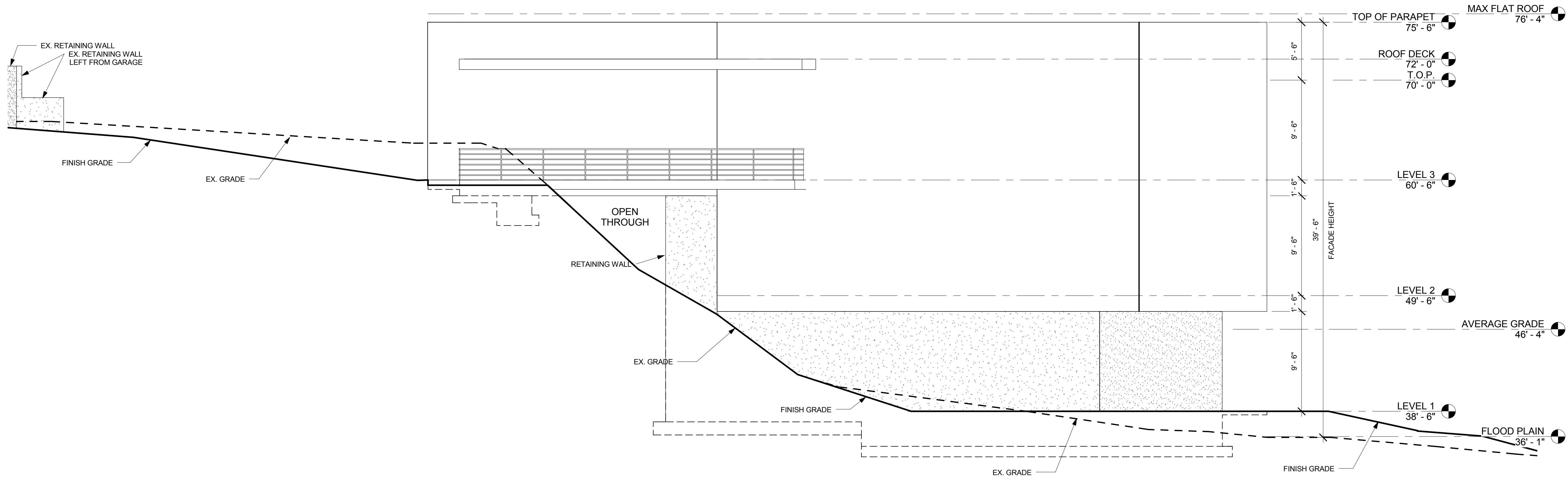


STORWATER DRAINAGE PLAN

SCALE: 1" = 10'-0"

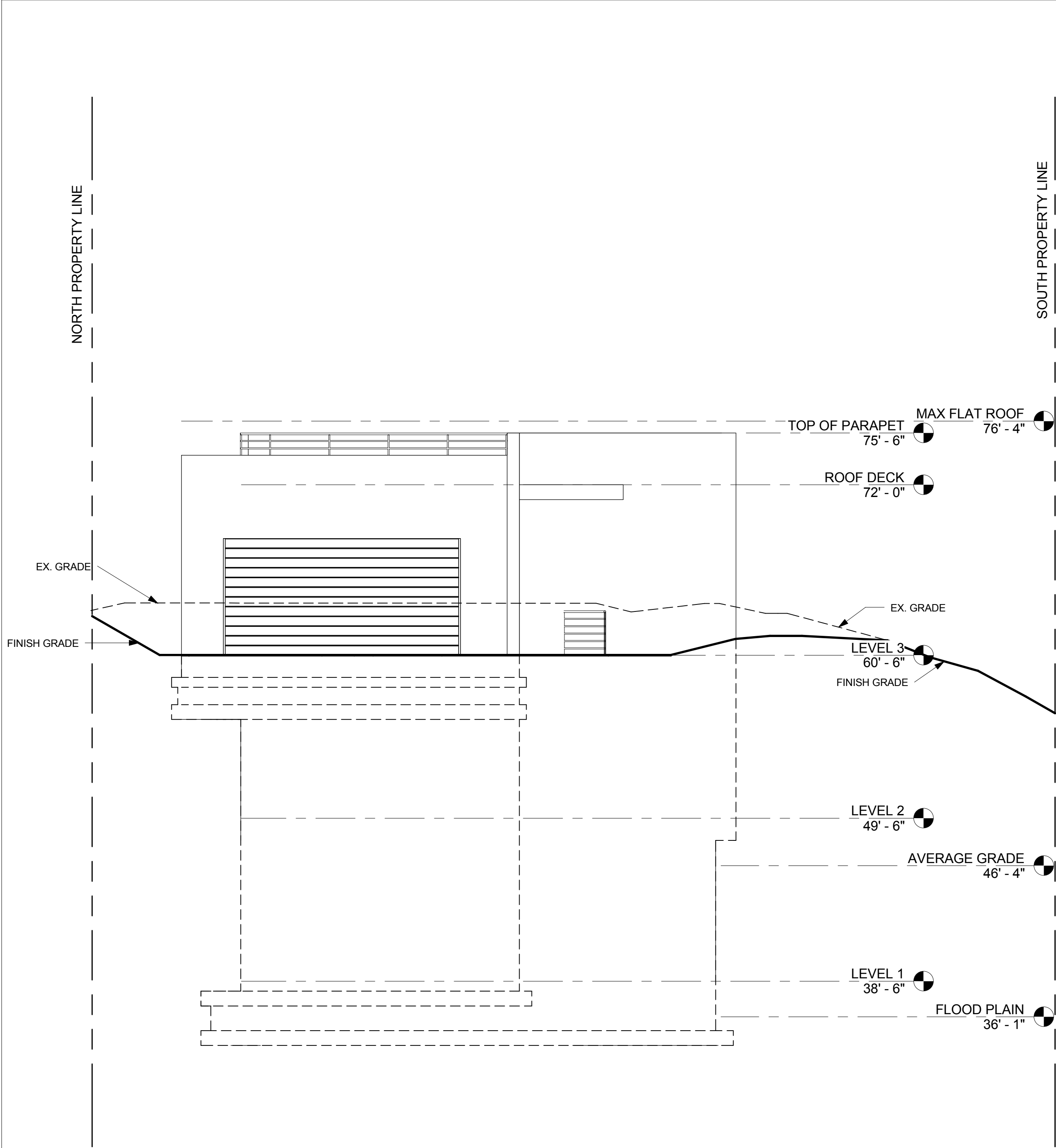


STORMWATER LEGEND	
FOOTING DRAIN (AS NOTED)	---
STORMWATER (AS NOTED)	---
6" OUTLET PIPE	---
DOWNSPOUT	DS ●
CATCH BASIN	CB ■



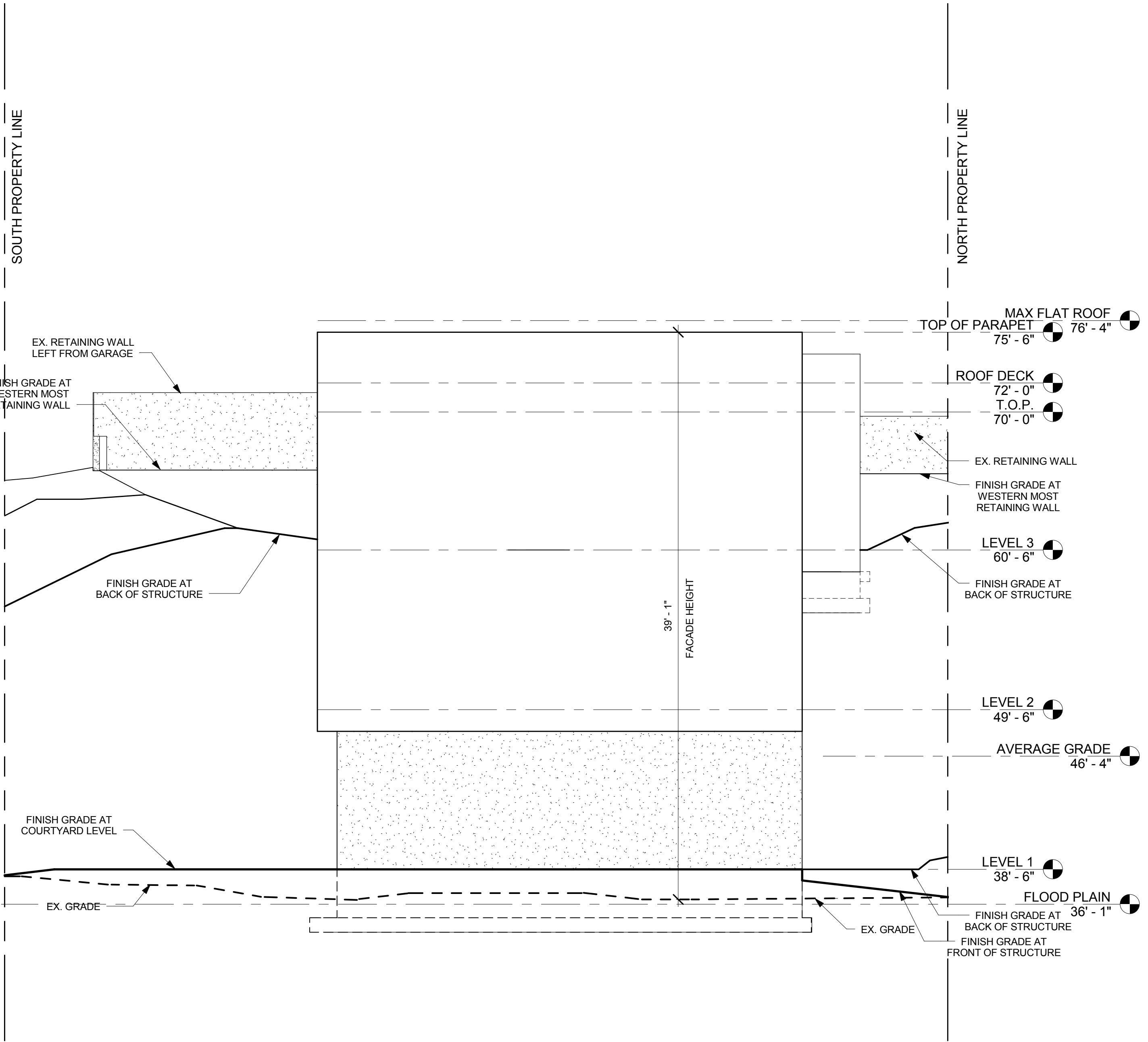
SOUTH ELEVATION

SCALE: 3/16" = 1'-0"



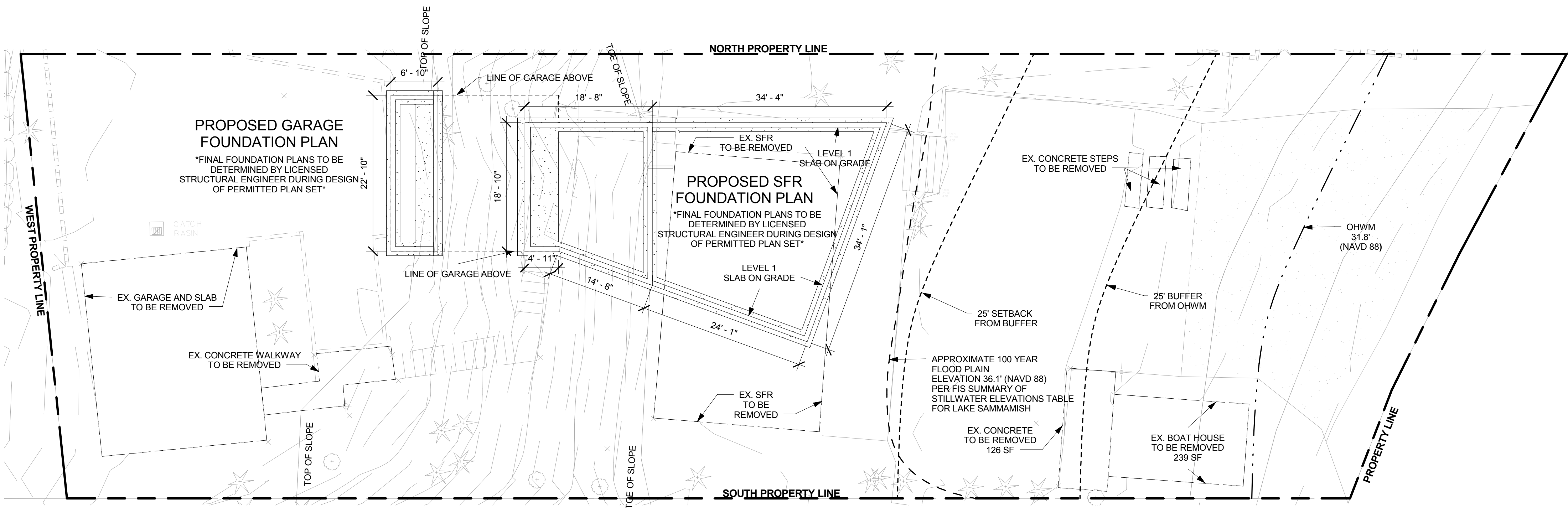
WEST ELEVATION

SCALE: 3/16" = 1'-0"



EAST ELEVATION

SCALE: 3/16" = 1'-0"



FOUNDATION
SCALE: 1" = 10'-0"

3220 1st Ave S
Suite 500
Seattle, WA 98134
p. 206.325.0147
www.alloydg.com

Approval Stamp

245 - 1258 LAKE SAMM SFR
1258 W LAKE SAMMAMISH PKWY SE
BELLEVUE, WA 98008
COB File # 16-132103-DC

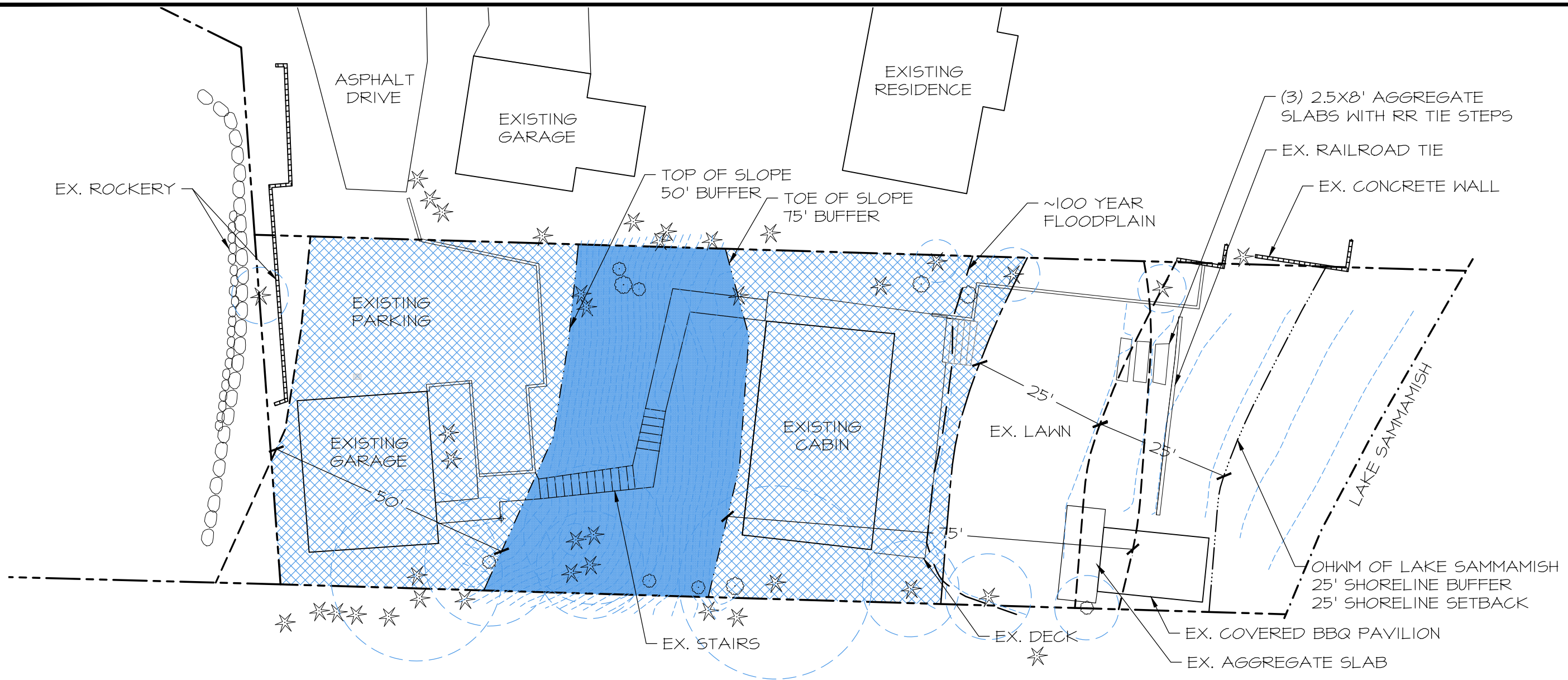
12/12/2016 CLU APPLICATION
1 5/24/2017 REVISED

FOUNDATION
PLAN

Sheet Title

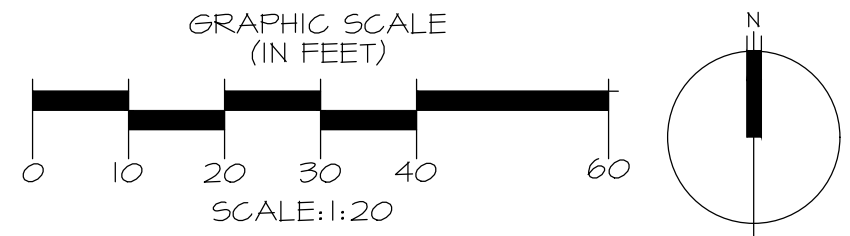
S1.0

Sheet



CRITICAL AREAS LEGEND

- PROPERTY LINE
- ORDINARY HIGH WATER OF LAKE SAMMAMISH
- ~100 YR. FLOODPLAIN
- EDGE OF WATER PER PLS INC. SURVEY (09.13.16)
- TOP/TOE OF SLOPE (75' BUFFER FROM TOE OF SLOPE AND 50' BUFFER FROM TOP OF SLOPE)
- STEEP SLOPE BUFFER AND SHORELINE SETBACK
- 25' SHORELINE STRUCTURE SETBACK
- ★ ○ EXISTING TREES
- 40%+ STEEP SLOPE
- STEEP SLOPE BUFFER (75' FROM TOE OF SLOPE AND 50' FROM TOP OF SLOPE)

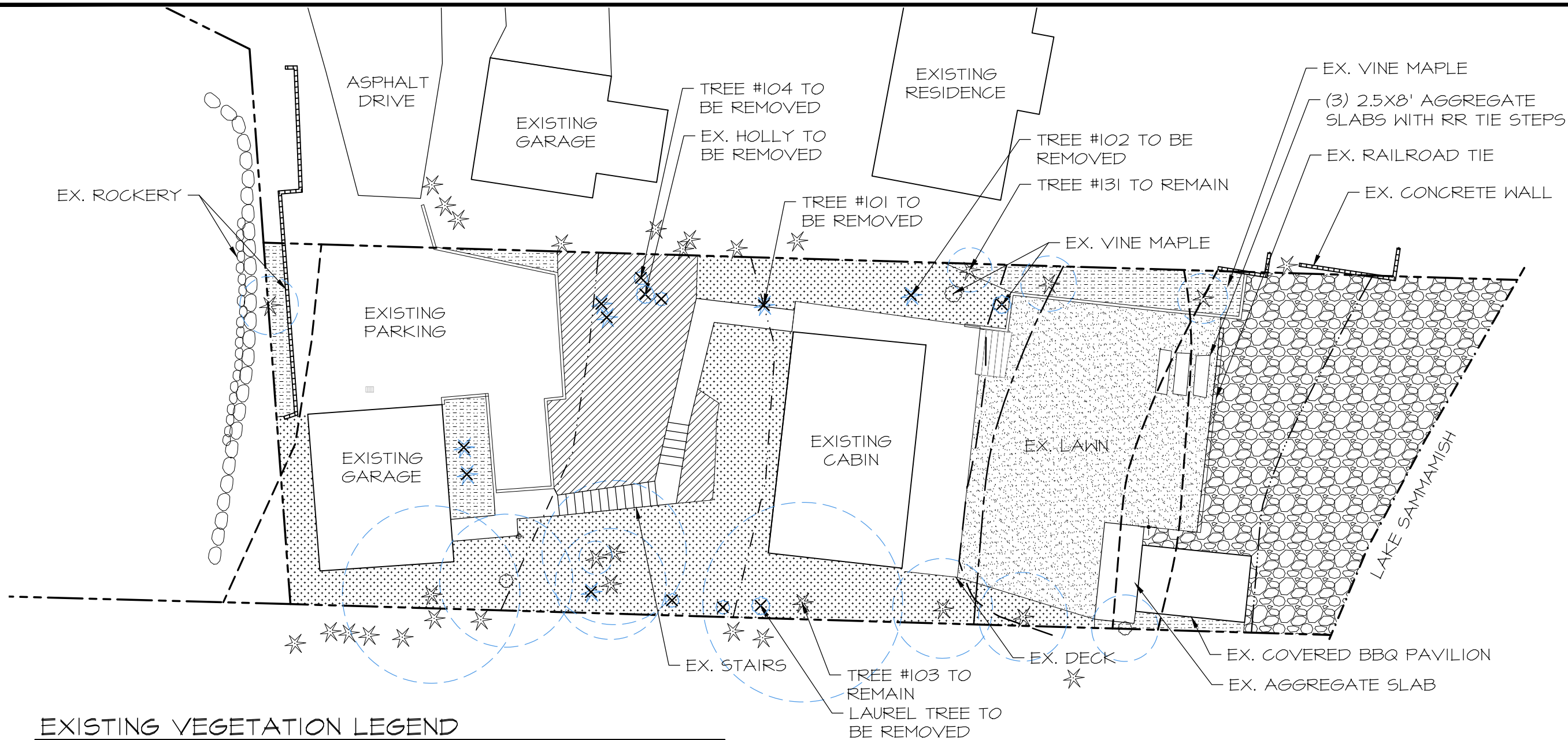


PROJECT	5285
DRAWN	SO
SCALE	A5 NOTED
DATE	12-07-16
REVISION	05-23-17

FIGURE 1: EXISTING CONDITIONS MAP
 BUFFER MITIGATION PLAN
 1258 W. LAKE SAMMAMISH PKWY. SE
 BELLEVUE, WASHINGTON

Altman Oliver Associates, LLC
 Environmental Planning & Landscape Architecture
 PO Box 578 Camanah, WA 98014
 Office (425) 333-4535 Fax (425) 333-4509

5285-MIT-05-23-17.dwg



EXISTING VEGETATION LEGEND

---	PROPERTY LINE
.....	ORDINARY HIGH WATER OF LAKE SAMMAMISH
---	~100 YR. FLOODPLAIN
-.-.-.-.-	EDGE OF WATER PER PLS INC. SURVEY (09.13.16)
-.-.-.-.-	TOE/TOP OF SLOPE (75' BUFFER FROM TOE OF SLOPE AND 50' BUFFER FROM TOP OF SLOPE)
---	STEEP SLOPE BUFFER AND SHORELINE SETBACK
---	25' SHORELINE STRUCTURE SETBACK
☆	EXISTING TREES TO REMAIN
☆	EXISTING TREES TO BE REMOVED
.....	EXISTING LAWN - 1,907 SF
.....	EXISTING ORNAMENTAL PLANTING BED - 674 SF
.....	NATIVE SAPLINGS, SHRUBS AND GROUND COVER - 1,033 SF
.....	TREES WITH OPEN UNDERSTORY - LITTLE IVY - 2,773 SF
.....	EXISTING GRAVEL BEACH - 2,341 SF

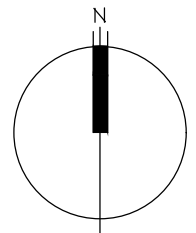
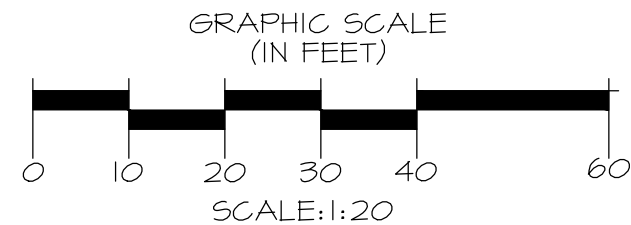
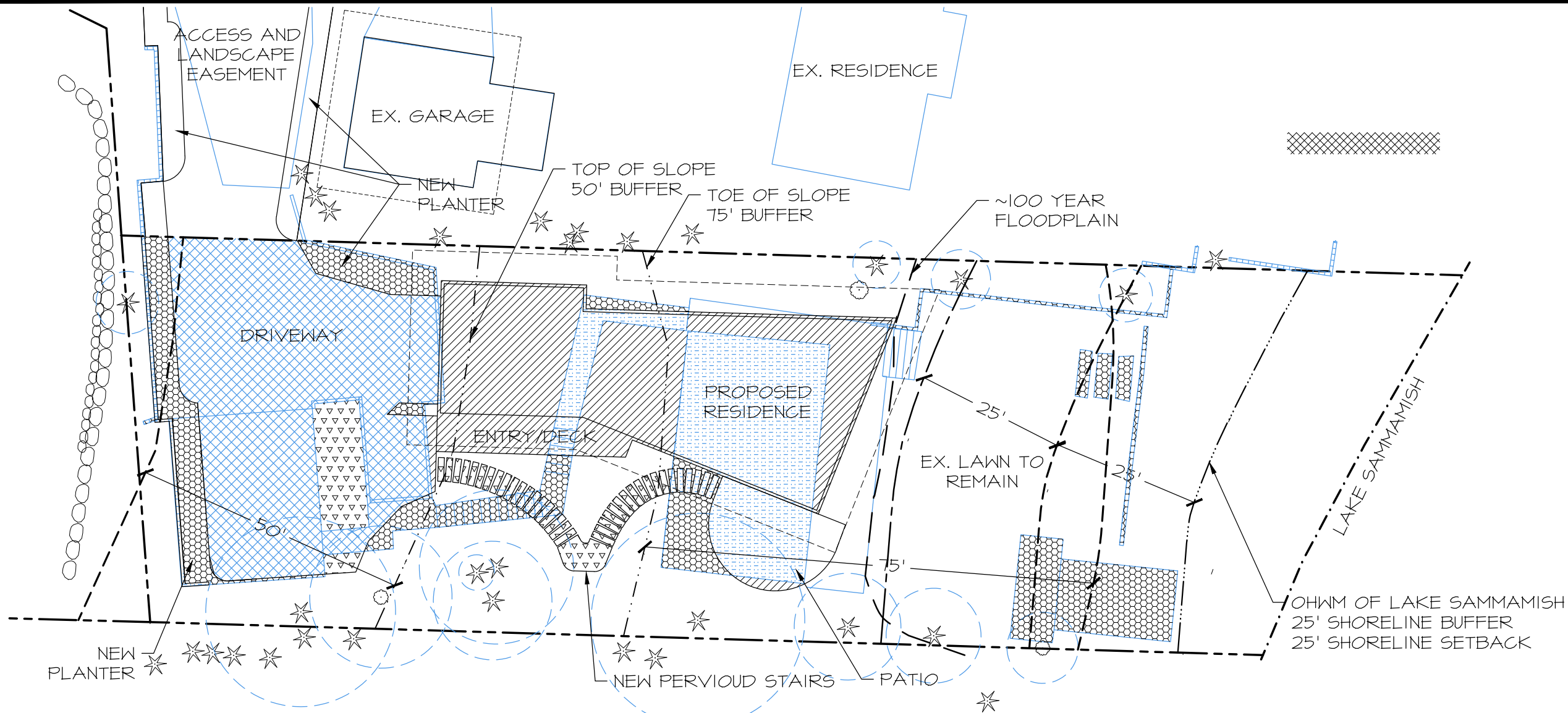


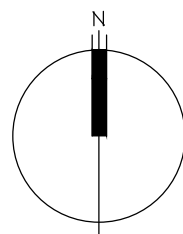
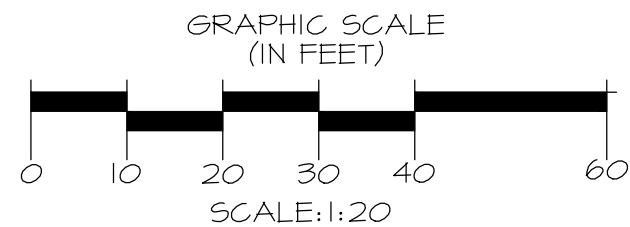
FIGURE 2: EXISTING VEGETATION MAP
BUFFER MITIGATION PLAN
1258 W. LAKE SAMMAMISH PKWY. SE
BELLEVUE, WASHINGTON



PLAN LEGEND

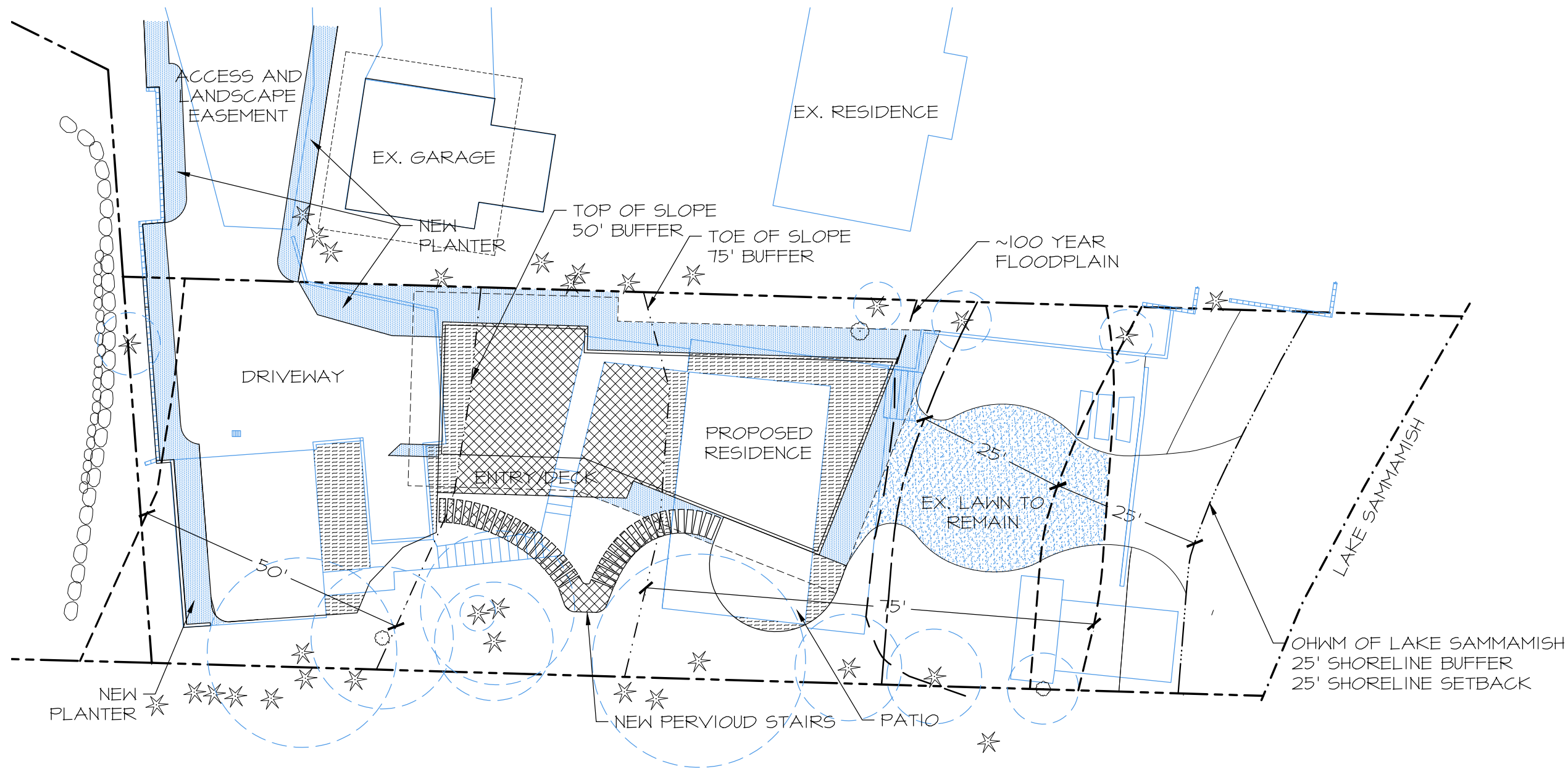
- PROPERTY LINE
- ORDINARY HIGH WATER OF LAKE SAMMAMISH
- ~100 YR. FLOODPLAIN
- EDGE OF WATER PER PLS INC. SURVEY (09.13.16)
- TOE/TOP OF SLOPE (75' BUFFER FROM TOE OF SLOPE AND 50' BUFFER FROM TOP OF SLOPE)
- STEEP SLOPE BUFFER AND SHORELINE SETBACK
- 25' SHORELINE STRUCTURE SETBACK
- 5' BSBL

	EXISTING TREES TO REMAIN	
	EXISTING IMPERVIOUS SURFACE TO REMAIN	1,053 SF
	EXISTING IMPERVIOUS SURFACE TO BE REMOVED	1,162 SF
	EXISTING IMPERVIOUS SURFACE TO BE REPLACED WITH PERVIOUS HARD SURFACE	1,839 SF
	NEW PERVIOUS HARD SURFACE	338 SF
	NEW IMPERVIOUS SURFACE	1,282 SF
	NET NEW IMPERVIOUS	229 SF



PROJECT	5285
DRAWN	SO
SCALE	A5 NOTED
DATE	12-07-16
REVISD	05-23-17

FIGURE 3: PROPOSED SITE PLAN
BUFFER MITIGATION PLAN
1258 W. LAKE SAMMAMISH PKWY. SE
BELLEVUE, WASHINGTON



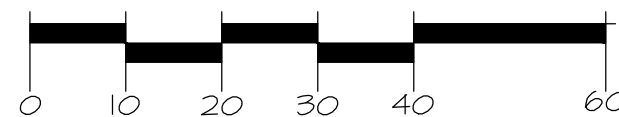
PLAN LEGEND

---	PROPERTY LINE
----	ORDINARY HIGH WATER OF LAKE SAMMAMISH
- - - -	~100 YR. FLOODPLAIN
.....	EDGE OF WATER PER PLS INC. SURVEY (09.13.16)
-----	TOE/TOP OF SLOPE (75' BUFFER FROM TOE OF SLOPE AND 50' BUFFER FROM TOP OF SLOPE)
-----	STEEP SLOPE BUFFER AND SHORELINE SETBACK
-----	25' SHORELINE STRUCTURE SETBACK
-----	5' BSBL
[Blue Stippled Box]	LANDSCAPE AREA - 1,480 SF
[Blue Cross-hatched Box]	EXISTING LAWN TO REMAIN WITHIN STEEP SLOPE BUFFER - 872 SF
[Star Symbol]	EXISTING TREES TO REMAIN

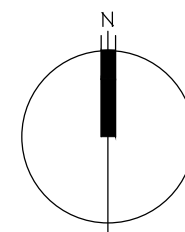
IMPACT LEGEND

[Cross-hatched Box]	STEEP SLOPE IMPACTS	911 SF
[Blue Cross-hatched Box]	STEEP SLOPE BUFFER IMPACTS	762 SF
	TOTAL IMPACTS	1,673 SF

GRAPHIC SCALE
(IN FEET)

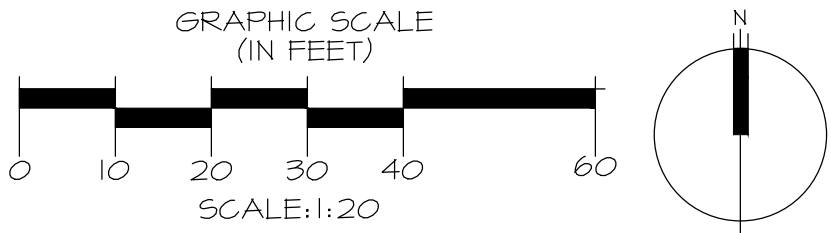
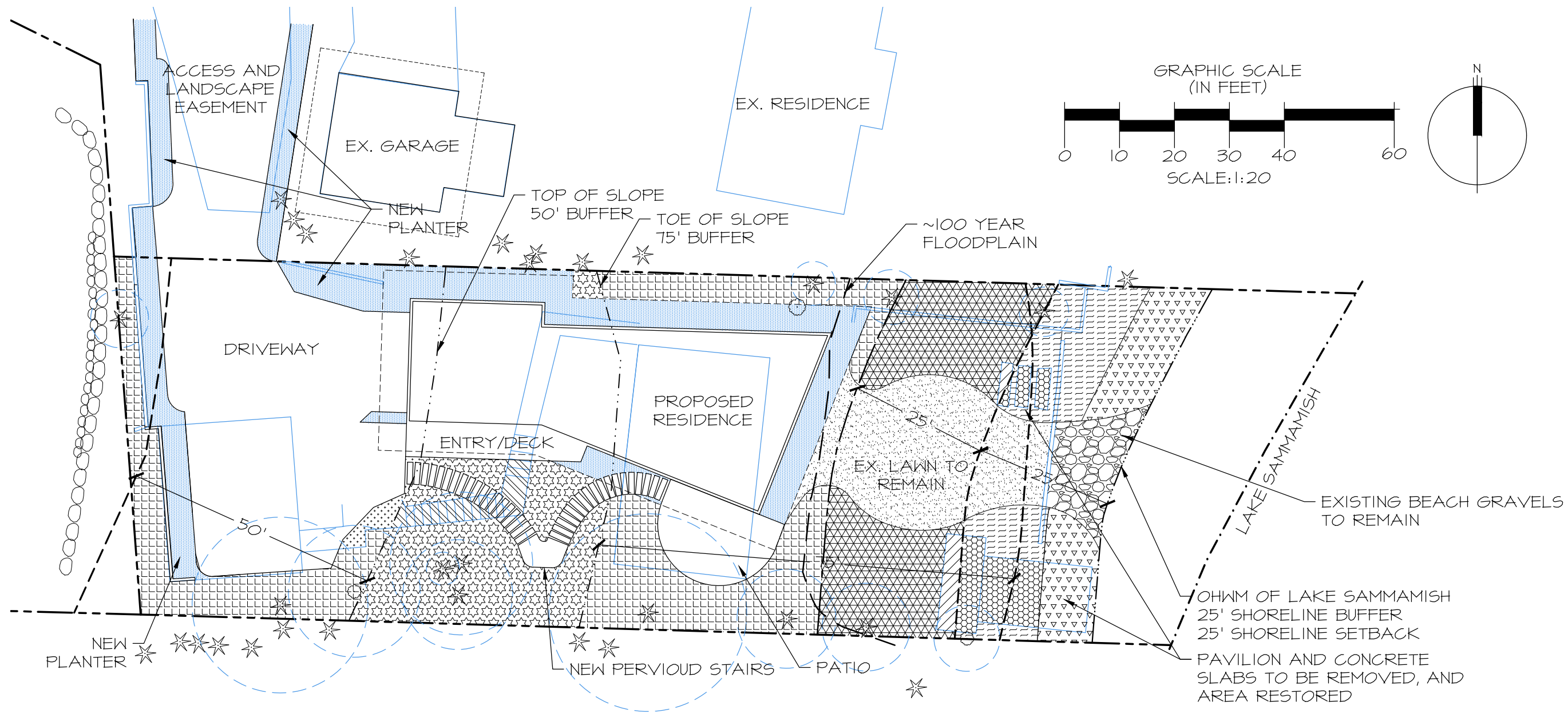


SCALE:1:20



PROJECT	5285
DRAWN	SO
SCALE	A5 NOTED
DATE	12-07-16
REVISION	05-23-17

FIGURE 4: IMPACTS
BUFFER MITIGATION PLAN
1258 W. LAKE SAMMAMISH PKWY. SE
BELLEVUE, WASHINGTON



PLAN LEGEND

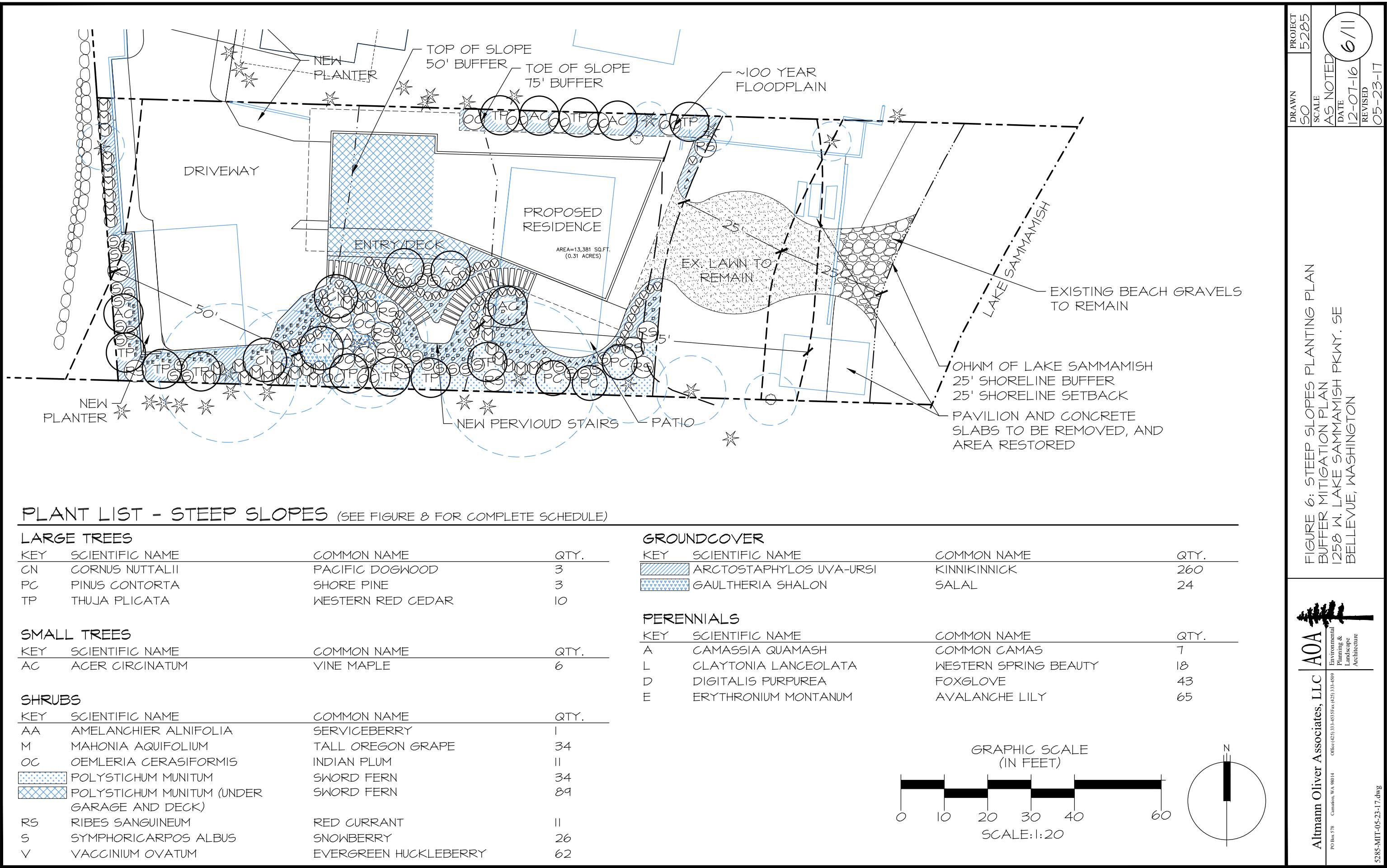
---	PROPERTY LINE
----	ORDINARY HIGH WATER OF LAKE SAMMAMISH
- - - -	~100 YR. FLOODPLAIN
- . - . - .	EDGE OF WATER PER PLS INC. SURVEY (09.13.16)
-	TOE/TOP OF SLOPE (75' BUFFER FROM TOE OF SLOPE AND 50' BUFFER FROM TOP OF SLOPE)
---	STEEP SLOPE BUFFER AND SHORELINE SETBACK
---	25' SHORELINE STRUCTURE SETBACK
---	5' BSBL
★	EXISTING TREES TO REMAIN
■	LANDSCAPE AREA - 1,480 SF
■	EXISTING LAWN TO BE REPLACED WITH A NATIVE RED FESCUE LAWN - 930 SF
■	EXISTING BEACH GRAVELS TO REMAIN - 245 SF

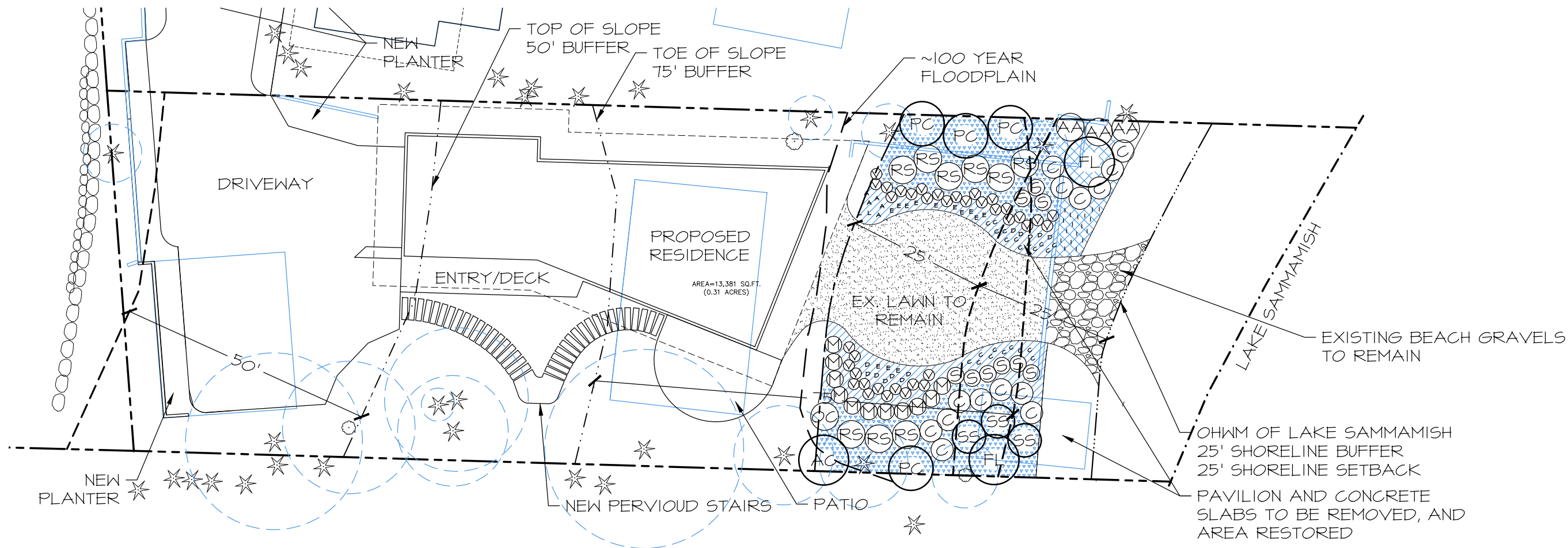
MITIGATION LEGEND

■	STEEP SLOPE RESTORATION	96 SF
■	STEEP SLOPE BUFFER RESTORATION	47 SF
■	STEEP SLOPE ENHANCEMENT	873 SF
■	STEEP SLOPE BUFFER ENHANCEMENT	1,644 SF
■	SHORELINE BUFFER RESTORATION	244 SF
■	SHORELINE BUFFER ENHANCEMENT	518 SF
■	SHORELINE SETBACK RESTORATION	67 SF
■	SHORELINE SETBACK ENHANCEMENT	992 SF
	TOTAL MITIGATION	4,481 SF
■	MITIGATION FOR DOCK - UNDER SEPARATE PERMIT	480 SF

PROJECT	5285
DRAWN	50
SCALE	A5 NOTED
DATE	12-07-16
REVISION	05-23-17

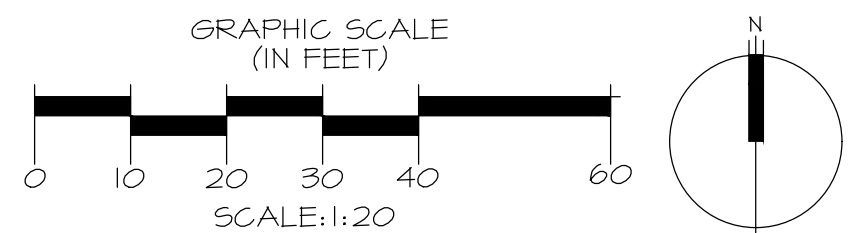
FIGURE 5: MITIGATION
BUFFER MITIGATION PLAN
1258 W. LAKE SAMMAMISH PKWY. SE
BELLEVUE, WASHINGTON





PLANT LIST - SHORELINE BUFFER (SEE FIGURE 8 FOR COMPLETE SCHEDULE)

LARGE TREES				GROUND COVER			
KEY	SCIENTIFIC NAME	COMMON NAME	QTY.	KEY	SCIENTIFIC NAME	COMMON NAME	QTY.
FL	FRAXINUS LATIFOLIA	OREGON ASH	2	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	88	
PC	PINUS CONTORTA	SHORE PINE	4	GAUTHERIA SHALLON	SALAL	146	
SMALL TREES				PERENNIALS			
KEY	SCIENTIFIC NAME	COMMON NAME	QTY.	KEY	SCIENTIFIC NAME	COMMON NAME	QTY.
AC	ACER CIRCINATUM	VINE MAPLE	1	A	CAMASSIA QUAMASH	COMMON CAMAS	5
SS	SALIX SITCHENSIS	SITKA WILLOW	3	C	CAMPANULA ROTUNDIFOLIA	COMMON HAIRBELL	22
SHRUBS				L	CLAYTONIA LANCEOLATA	WESTERN SPRING BEAUTY	2
KEY	SCIENTIFIC NAME	COMMON NAME	QTY.	D	DIGITALIS PURPUREA	FOXGLOVE	12
AA	AMELANCHIER ALNIFOLIA	SERVICEBERRY	3	E	ERYTHRONIUM MONTANUM	AVALANCHE LILY	13
C	CORNUS SERICEA	RED OSIER DOGWOOD	14	I	IRIS TENAX	OREGON IRIS	18
M	MAHONIA AQUIFOLIUM	TALL OREGON GRAPE	11	EMERGENTS			
OC	OEMLERIA CERASIFORIS	INDIAN PLUM	1	KEY	SCIENTIFIC NAME	COMMON NAME	QTY.
RS	RIBES SANGUINEUM	RED CURRANT	9	CAREX OBNUPTA	SLOUGH SEDGE	128	
S	SYMPHORICARPOS ALBUS	SNOWBERRY	9				
V	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	37				



PLANT SCHEDULE (STEEP SLOPES AND SHORELINE BUFFER)

LARGE TREES

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
CN	CORNUS NUTTALII	PACIFIC DOGWOOD	10' O.C.	3	5 GAL.	SINGLE TRUNK, WELL BRANCHED
FL	FRAXINUS LATIFOLIA	OREGON ASH	10' O.C.	2	5 GAL.	SINGLE TRUNK, WELL BRANCHED
PC	PINUS CONTORTA	SHORE PINE	8' O.C.	7	5 GAL.	FULL & BUSHY
TP	THUJA PLICATA	WESTERN RED CEDAR	10' O.C.	10	5 GAL.	FULL & BUSHY

SMALL TREES

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
AC	ACER CIRCINATUM	VINE MAPLE	6' O.C.	7	5 GAL.	MULTI-STEM (3 MIN.)
SS	SALIX SITCHENSIS	SITKA WILLOW	6' O.C.	3	1 GAL.	FULL & BUSHY

SHRUBS

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
AA	AMELANCHIER ALNIFOLIA	SERVICEBERRY	5' O.C.	4	2 GAL.	MULTI-STEM (3 MIN.)
C	CORNUS SERICEA	RED OSIER DOGWOOD	4' O.C.	14	2 GAL.	MULTI-STEM (3 MIN.)
M	MAHONIA AQUIFOLIUM	TALL OREGON GRAPE	3' O.C.	45	2 GAL.	FULL & BUSHY
OC	OEMLERIA CERASIFORMIS	INDIAN PLUM	5' O.C.	12	1 GAL.	MULTI-STEM (3 MIN.)
	POLYSTICHUM MUNITUM	SWORD FERN	3' O.C.	34	1 GAL.	FULL & BUSHY
	POLYSTICHUM MUNITUM (UNDER GARAGE AND DECK)	SWORD FERN	3' O.C.	89	1 GAL.	FULL & BUSHY
RS	RIBES SANGUINEUM	RED CURRANT	5' O.C.	20	2-5 GAL.	MULTI-STEM (3 MIN.)
S	SYMPHORICARPOS ALBUS	SNOWBERRY	3' O.C.	35	2 GAL.	MULTI-STEM (3 MIN.)
V	VACCINIUM OVATUM	EVERGREEN HUCKLEBERRY	2' O.C.	99	2 GAL.	FULL & BUSHY

GROUND COVER

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE (MIN.)	NOTES
	ARCTOSTAPHYLOS UVA-URSI	KINNIKINNICK	2' O.C.	348	1 GAL.	FULL & BUSHY
	GAULTHERIA SHALLON	SALAL	2' O.C.	170	1 GAL.	FULL & BUSHY

PERENNIALS

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE MIN.)	NOTES
A	CAMASSIA QUAMASH	COMMON CAMAS	1' O.C.	12	1 GAL. OR 4" POT	FULL & BUSY
C	CAMPANULA ROTUNDIFOLIA	COMMON HAIRBELL	1' O.C.	22	1 GAL. OR 4" POT	FULL & BUSHY
L	CLAYTONIA LANCEOLATA	WESTERN SPRING BEAUTY	9" O.C.	20	1 GAL. OR 4" POT	FULL & BUSHY
D	DIGITALIS PURPUREA	FOXGLOVE	1' O.C.	55	1 GAL. OR 4" POT	FULL & BUSHY
E	ERYTHRONIUM MONTANUM	AVALANCHE LILY	6" O.C.	78	1 GAL. OR 4" POT	FULL & BUSHY
I	IRIS TENAX	OREGON IRIS	1' O.C.	18	1 GAL. OR 4" POT	FULL & BUSHY

EMERGENTS

KEY	SCIENTIFIC NAME	COMMON NAME	SPACING	QTY.	SIZE MIN.)	NOTES
	CAREX OBNUPTA	SLOUGH SEDGE	1' O.C.	128	1 GAL. OR 4" POT	FULL & BUSY

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DATE
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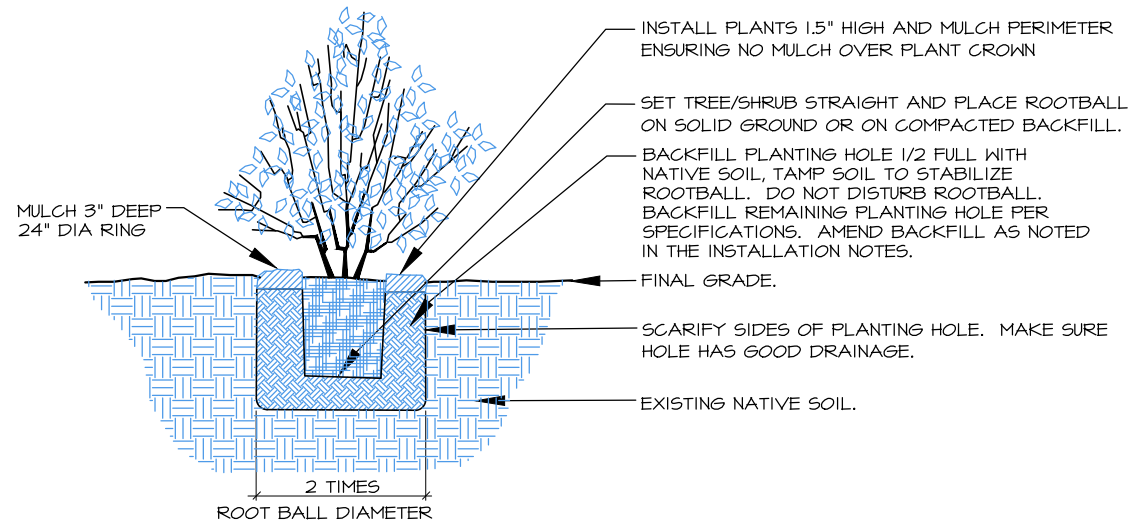
FIGURE 8: PLANT SCHEDULE
BUFFER MITIGATION PLAN
1258 W. LAKE SAMAMISH PKWY. SE
BELLEVUE, WASHINGTON

Altmann Oliver Associates, LLC

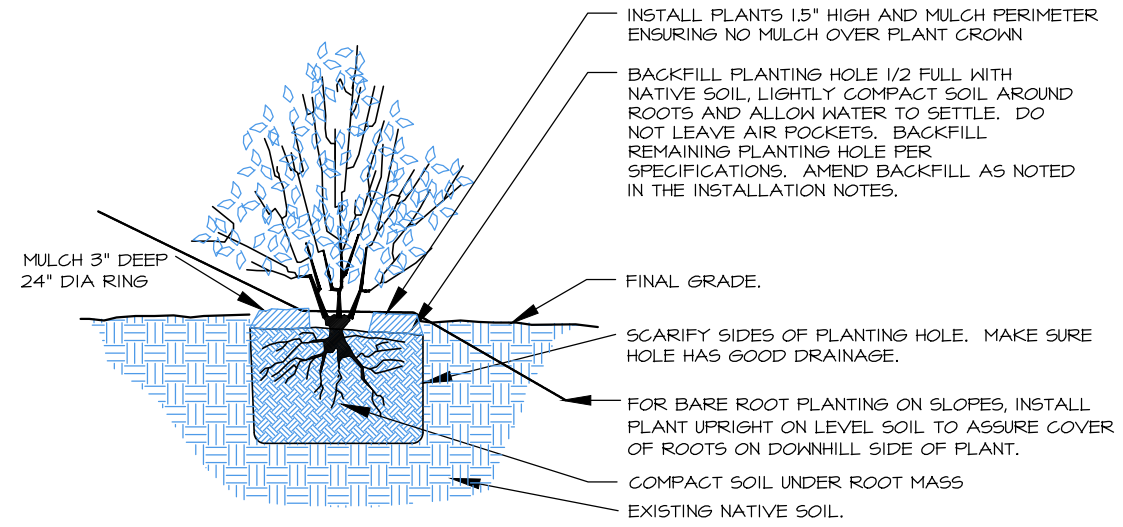

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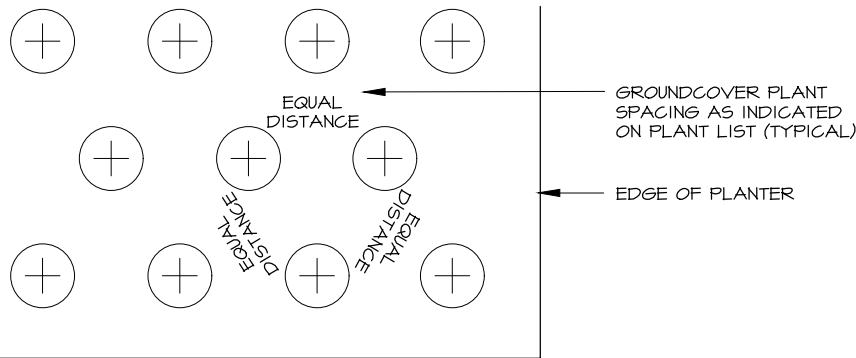
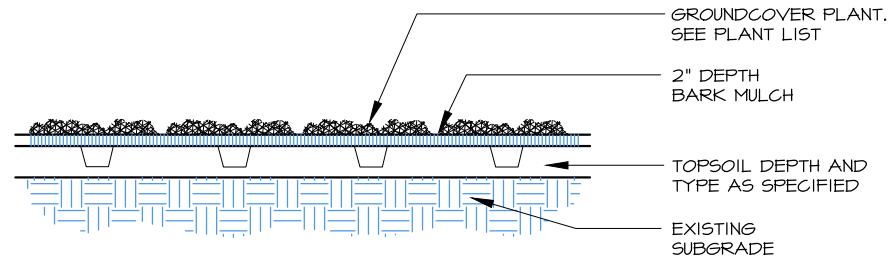
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1 CONTAINER TREE/SHRUB PLANTING (TYP.)
SCALE: NTS



2 BARE-ROOT SHRUB PLANTING (TYP.)
SCALE: NTS



3 GROUNDCOVER PLANTING (TYP.)
SCALE: NTS

FIGURE 1: PLANTING DETAILS
BUFFER MITIGATION PLAN
1258 W. LAKE SAMAMISH PKWY. SE
BELLEVUE, WASHINGTON

SPECIFICATIONS

1.

THIS PLAN PERTAINS TO PLANTING PORTION OF THE SITE WORK ONLY.
2.

CONTRACTOR INFORMATION. WHEN IT IS AVAILABLE, CONTACT INFORMATION SHALL BE PROVIDED TO THE CITY OF BELLEVUE THAT INCLUDES NAMES, ADDRESSES AND PHONE NUMBERS OF PERSONS/FIRMS THAT WILL BE RESPONSIBLE FOR INSTALLING REQUIRED PLANTS AND PERFORMING REQUIRED MAINTENANCE.
3.

CONTRACTOR'S QUALIFICATIONS. ALL WORK SHALL BE PERFORMED BY A LICENSED LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF WASHINGTON. CONTRACTOR MUST BE EXPERIENCED IN MITIGATION AND RESTORATION WORK. THE CONTRACTOR SHALL PROVIDE THAT THERE IS ONE PERSON ON THE SITE AT ALL TIMES DURING WORK AND INSTALLATION WHO IS THOROUGHLY FAMILIAR WITH THE TYPE OF MATERIALS BEING INSTALLED AND THE BEST METHODS FOR THEIR INSTALLATION, AND WHO SHALL DIRECT ALL WORK BEING PERFORMED UNDER THESE SPECIFICATIONS. THIS PERSON SHALL HAVE A MINIMUM OF FIVE (5) YEARS EXPERIENCE INSTALLING NATIVE PLANT MATERIALS FOR WETLAND MITIGATION OR RESTORATION PROJECTS, UNLESS OTHERWISE ALLOWED BY THE LANDSCAPE DESIGNER, WETLAND BIOLOGIST AND/OR THE CITY OF BELLEVUE.
4.

EXISTING STRUCTURES AND NON-NATURAL MATERIALS SHALL BE REMOVED FROM ALL MITIGATION AND LANDSCAPED AREAS PRIOR TO PLANTING.
5.

ALL PLANTING AREAS SHALL BE OVER-EXCAVATED 12" FOR PLACEMENT OF 12" OF IMPORTED 3-WAY TOPSOIL (DEJONG'S) OR STOCKPILED NATIVE TOPSOIL. AOA TO APPROVE TOPSOIL PRIOR TO PLACEMENT.
6.

ALL PLANTS SHOULD BE INSTALLED BETWEEN DECEMBER 1ST AND MARCH 15TH.
7.

INTERMEDIATE INSPECTIONS. ALL PLANTS SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE DESIGNER AND/OR WETLAND BIOLOGIST PRIOR TO INSTALLATION. CONDITION OF ROOTS OF A RANDOM SAMPLE OF PLANTS WILL BE INSPECTED, AS WELL AS ALL ABOVEGROUND GROWTH ON ALL PLANTS. ROOTS OF ANY BARE ROOT PLANTS, IF PERMITTED FOR USE, WILL BE INSPECTED. PLANT MATERIAL MAY BE APPROVED AT THE SOURCE, AT THE DISCRETION OF THE LANDSCAPE DESIGNER AND THE WETLAND BIOLOGIST, BUT ALL MATERIAL MUST BE RE-INSPECTED AND APPROVED ON THE SITE PRIOR TO INSTALLATION. PLANT LOCATIONS SHALL ALSO BE INSPECTED AND APPROVED PRIOR TO PLANTING.
8.

PRIOR TO INSTALLATION OF PLANT MATERIAL, THE PLANTING AREAS WILL BE LAID OUT BASED ON THE PLANTING PLAN, AND ALL HIMALAYAN BLACKBERRY, ENGLISH IVY OR OTHER INVASIVE PLANT SPECIES LOCATED IN THE PLANTING AREAS WILL BE REMOVED BY HAND.
9.

ALL PLANTS SHALL BE PIT-PLANTED IN PLANTING PITS EXCAVATED 2X THE DIAMETER OF THE PLANT. PLANTS SHALL BE INSTALLED 3" HIGH AND SURFACED MULCHED TO A DEPTH OF 3" WITH MEDIUM-COURSE BARK MULCH PLACED CONTINUOUSLY THROUGHOUT THE PLANTING BED.
10.

ALL PLANTS SHALL BE NURSERY GROWN (IN WESTERN WA OR OR) FOR AT LEAST 1 YEAR FROM PURCHASE DATE, FREE FROM DISEASE OR PESTS, WELL-ROOTED, BUT NOT ROOT-BOUND AND TRUE TO SPECIES.
11.

PLANT LAYOUT SHALL BE APPROVED BY AOA PRIOR TO INSTALLATION AND APPROVED UPON COMPLETION OF PLANTING.
12.

UPON COMPLETION OF PLANTING, ALL PLANTS SHALL BE THOROUGHLY WATERED.
13.

UPON APPROVAL OF PLANTING INSTALLATION BY AOA, THE CITY OF BELLEVUE WILL BE NOTIFIED TO CONDUCT A SITE REVIEW FOR FINAL APPROVAL OF CONSTRUCTION.
14.

MAINTENANCE SHALL BE REQUIRED IN ACCORDANCE WITH THE CITY OF BELLEVUE SENSITIVE AREAS MITIGATION GUIDELINES AND APPROVED PLANS.
20.

AN IRRIGATION SHALL BE DESIGN/BUILT BY LANDSCAPE CONTRACTOR TO PROVIDE SEPARATE ZONE COVERAGE TO THE LAWN AREAS VERSUS THE PLANTING BEDS.
21.

THE ZONE TO THE PLANTING BEDS SHALL BE SET TO PROVIDE 1/2" OF FLOW 2-3 TIMES WEEKLY FROM JULY 1 -OCTOBER 31 THE FIRST YEAR AFTER PLANTING. FLOW SHALL REDUCE TO 1-2 TIMES WEEKLY THE SECOND YEAR AFTER PLANTING AND ONCE WEEKLY THE YEARS 3-5. NO FURTHER IRRIGATION IS NECESSARY AFTER THE THIRD YEAR FOR THE NATIVE PLANTING BEDS.
22.

THE IRRIGATION SYSTEM SHALL UTILIZE MP-3 ROTARY HEADS AND WILL HAVE A RAIN SENSOR ATTACHED.
23.

MAINTENANCE SHALL BE IMPLEMENTED ON A REGULAR BASIS ACCORDING TO THE SCHEDULE BELOW.

ANNUAL MAINTENANCE SCHEDULE

MAINTENANCE ITEM	J	F	M	A	M	J	J	A	S	O	N	D
WEED CONTROL			I		I	I	I	I	I	I		
GENERAL MAINT.			I		I	I	I	I	I	I		
WATERING - YEAR 1						4	8	8	8			
WATERING - YEAR 2						4	8	8	8			
WATERING - YEARS 3-5						4	4	4	4			

1-8 = NUMBER OF TIMES TASK SHALL BE PERFORMED PER MONTH.

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FIGURE 10: SPECIFICATIONS
BUFFER MITIGATION PLAN
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MAINTENANCE & MONITORING PLAN

CONSTRUCTION MANAGEMENT

- 1. Prior to commencement of any work in the steep slope and shoreline setback enhancement areas, the clearing limits will be staked and all existing vegetation to be saved will be clearly marked. A pre-installation meeting will be held at the site to review and discuss all aspects of the project with the owner.
- 2. A biologist will supervise plan implementation during construction to ensure that objectives and specifications of the steep slope and shoreline setback enhancement plan are met.
- 3. Any necessary significant modifications to the design that occur as a result of unforeseen site conditions will be jointly approved by the City of Bellevue and the biologist prior to their implementation.

MONITORING METHODOLOGY

- 1. The monitoring program will be conducted twice yearly (in the beginning and end of the growing season) for a period of five years, with reports submitted annually (at the end of the growing season) to the City of Bellevue.
- 2. Vegetation establishment within the steep slope and shoreline setback enhancement areas will be monitored during each field visit with a record kept of all plant species found.
- 3. Photo-points will be established from which photographs will be taken throughout the monitoring period. These photographs will document general appearance and progress in plant community establishment in the enhancement areas. Review of the photos over time will provide a semi-quantitative representation of success of the enhancement plan.

PERFORMANCE STANDARDS

- Success of plant establishment within the steep slope and shoreline setback enhancement areas will be evaluated on the basis of percent survival of planted species.
- 1. Native woody cover will be a minimum of; 10% at construction completion, 15% at year 1, 20% at year 2, 25% at year 3 and 40% at year 5.
 - 2. There will be 100% survival of all woody planted species throughout the mitigation planted area at the end of the first year of planting. For years 2-5, success will be based on an 85% survival rate or similar number of recolonized native woody plants.
 - 3. Exotic and invasive plant species will be maintained at levels below 10% total cover. Removal of these species will occur immediately following the monitoring event in which they surpass the above maximum coverage. Removal will occur by hand whenever possible.

MAINTENANCE (M) & CONTINGENCY (C)

- 1. Established performance standards for the project will be compared to the monitoring results in order to judge the success of the enhancement project.
- 2. Contingency will include many of the items listed below and would be implemented if these performance standards are not met.
- 3. Maintenance and remedial action on the site will be implemented immediately upon completion of the monitoring event, (unless otherwise specifically indicated below).

- replace dead plants with the same species or a substitute species that meet the goal of the enhancement plan (C)
- re-plant areas after reason for failure has been identified (e.g., moisture regime, poor plant stock, disease, shade/sun conditions, wildlife damage, etc.) (C)
- irrigate following plant installation for five years (M)

PERFORMANCE BOND

- 1. A performance bond or other surety device will be posted with the City of Bellevue by the applicant to cover the costs of steep slope and shoreline setback enhancement plan implementation (including labor, materials, maintenance, and monitoring).
- 2. The bond or assignment may be released in partial amounts in proportion to work successfully completed over the five year monitoring period, as the applicant demonstrates performance and corrective measures.



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FIGURE II: MAINTENANCE & MONITORING PLAN
BUFFER MITIGATION PLAN
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