



City of Seattle

Gregory J. Nickels, Mayor

Department of Planning and Development

D. M. Sugimura, Director

**CITY OF SEATTLE
ANALYSIS AND DECISION OF THE DIRECTOR
OF THE DEPARTMENT OF PLANNING AND DEVELOPMENT**

Application Number: 3008860
Applicant Name: Anne Adams, Stuart Silk Architects
Address of Proposal: 2709 W Galer Street

SUMMARY OF PROPOSED ACTION

Land Use Application to allow a 7,900 sq. ft., two story single family residence (4,074 sq. ft. footprint) in an environmentally critical area. Review includes 5,200 sq. ft. of vegetation, tree removal (10) and landscaping. Existing structure to be demolished.

The following approvals are required:

Variance – to allow disturbance of an Environmentally Critical Area (ECA) steep slope buffer, SMC 25.09.180.

SEPA - Environmental Determination – SMC Chapter 25.05

SEPA DETERMINATION: Exempt DNS MDNS EIS
 DNS with conditions
 DNS involving non-exempt grading or demolition,
or involving another agency with jurisdiction.

BACKGROUND DATA

Zoning: The site contains both Single Family 5,000 (SF 5000) and 7,200 (SF 7200) minimum lot size zoning.

Prior Uses on Site: The existing single family house is to be demolished.

Substantive Site Characteristics:

The panhandle of this 15,282 sq. ft. site fronts on W Galer Street, just west of the Magnolia Bridge. The site has a gradual slope to the south, then at the southern edge of the site a very steep slope down the bluff toward the Elliott Bay Marina. This bluff is mapped as containing landslide-prone, steep slope and known slide environmentally critical areas and a 15 foot buffer extends north from the top of the slope.

The area is zoned for single family development in all directions.



Proposal Description:

The proposal includes demolishing the existing house, removing 11 of the 15 trees, installing a direct exchange geothermal heating and cooling system, constructing a stabilization wall at the top of the bluff and building a new 7,900 sq. ft. house on the site. Construction of the wall would involve work within the 15 foot steep slope buffer, requiring the variance an environmental determination (SEPA) is required due to the scope of work proposed.

To meet the requirements of Seattle's Environmentally Critical Areas ordinance the site must be completely stabilized, SMC 25.09.080. The applicant proposes to achieve this through construction of a closely spaced pier stabilization wall with tie-back anchors. This would be constructed by drilling a series of 65 foot deep holes 3 feet apart and between 10 and 15 feet back from the top of the slope, setting steel H beams into the holes and filling the holes with grout. Tie-back anchors would be drilled from the top of these beams approximately 40 feet back into the soil at 25 degrees below horizontal. The top of slope and buffer area would then be replanted with a variety of drought tolerant plant species.

Public Comment:

The comment period on this application ended on April 30th, 2008 with receipt of two written comments, both requesting that additional trees be kept on site. The 39" diameter American Elm just south of the existing house was of particular concern. Bill Ames, the Seattle City Forester, visited the site and confirmed that the tree was healthy and that elms were generally tolerant of construction related soil disturbance. In response to these requests the applicant agreed to save two fir trees at the northeast corner of the site in addition to the two proposed to be kept at the southwest corner of the site.

ANALYSIS – ECA VARIANCE

This variance request pertains to proposed disturbance of an identified Environmentally Critical Area (ECA) steep slope buffer. Such variances may be authorized according to the provisions of SMC 25.09.180 E, quoted below.

1. *Steep Slope Area Variance. The Director may reduce the steep slope area buffer and may authorize limited intrusion into the steep slope area and steep slope buffer to the extent allowed in subsection E2 only when the applicant qualifies for a variance by demonstrating that:*
 - a. *the lot where the steep slope or steep slope buffer is located was in existence before October 31, 1992; and*
 - b. *the proposed development otherwise meets the criteria for granting a variance under Section 25.09.280 B , except that reducing the front or rear yard or setbacks will not both mitigate the hardship and maintain the full steep slope area buffer.*

The subject lot existed prior to October 31, 1992. The referenced criteria relate to the reduction of required yards to provide for preservation of ECA buffers. The cited criteria are discussed below.

2. *If any buffer reduction or development in the critical area is authorized by a variance under subsection E1; it shall be the minimum to afford relief from the hardship and shall be in the following sequence of priority:*
 - a. *reduce the yards and setbacks, to the extent reducing the yards or setbacks is not injurious to safety;*
 - b. *reduce the steep slope area buffer;*
 - c. *allow an intrusion into not more than thirty percent (30%) of the steep slope area.*

The subject lot is unusually shaped, with a portion along the street carved out for another house leaving a panhandle containing the driveway for this site. This panhandle is where the front yard is calculated, so reducing that yard would not enable the house and therefore the wall to move further north, away from the buffer. Reducing the rear yard would move the house further south, toward the buffer, so that would not improve the situation. The length and angle of the tie-back anchors that stabilize the pier wall restrict the location of the house as they require at least 7 feet of clearance under the foundation.

The applicant's proposal is to reduce the steep slope buffer to allow construction of the stabilization wall between 10 and 15 feet back from the top of the slope. No intrusion into the steep slope itself is proposed. The report prepared by Zach Munstermann and stamped by Robert Ward, PE of Geotech Consultants concludes that this location will provide the required stabilization of the steep slope. Placing the wall as close to the edge of the bluff as possible allows for protection of the greatest amount of site area and therefore a larger margin of safety for the new house and its inhabitants. The new wall would be below grade and the disturbed area would be replanted with a mix of drought tolerant plants.

- 3. The Director may impose additional conditions on the location and other features of the proposed development as necessary to carry out the purpose of this chapter and mitigate the reduction or loss of the yard, setback, or steep slope area or buffer.*

The only construction proposed within the steep slope buffer is for the stabilization wall and a small corner of the rear terrace. The stabilization of the bluff will help to limit the periodic slumping of the top edge of the bluff that leads to erosion and potential property damage. Because the construction will need to occur in close proximity to the bluff the work must be done in strict accordance with the recommendations made in the geotechnical report.

In addition to the provisions discussed above, DPD may grant an ECA variance only when all of the following criteria are met, as set forth in SMC 25.09.280 B, stated below:

- 1. The lot has been in existence as a legal building site prior to October 31, 1992.*

The subject lot existed as a legal building site prior to October 31, 1992.

- 2. Because of the location of the subject property in or abutting an environmentally critical area or areas and the size and extent of any required environmentally critical areas buffer, the strict application of the applicable yard or setback requirements of Title 23 would cause unnecessary hardship; and*

The applicant is not requesting any yard reductions as they would not reduce the impact of the wall on the ECA buffer. Proposed disturbance would be confined to the outer half of the steep slope buffer. The hardship leading to the applicant's request for a variance is that the property beyond the wall is vulnerable to slope failure and may eventually be lost. A future slide would result in a smaller lot, with greater danger to the house, inhabitants and neighboring properties.

- 3. The requested variance does not go beyond the minimum to stay out of the full width of the riparian management area or required buffer and to afford relief; and*

SMC 25.09.180 E modifies this provision to allow for developmental disturbance within the steep slope ECA and/or its buffer. The requested buffer reduction would allow placement of the stabilization wall in close proximity to the edge of the bluff, so that in the case of a landslide less of the lot would be lost and the damage would occur further from the proposed house.

- 4. The granting of the variance will not be injurious to safety or to the property or improvements in the zone or vicinity in which the property is located; and*

The applicant has provided a geotechnical report, dated October 24, 2007, which provides findings and preliminary recommendations for future development on the site. An additional letter discussing the merits of locating the wall within the buffer area dated June 5, 2008 was submitted. DPD has reviewed the report and letter and finds the analysis to be acceptable. Assuming development is conducted in accordance with these recommendations such disturbance within the steep slope buffer should not be injurious to the property or to neighboring properties.

5. *The yard or setback reduction will not result in a development that is materially detrimental to the character, design and streetscape of the surrounding neighborhood, considering such factors as height, bulk, scale, yards, pedestrian environment, and amount of vegetation remaining; and*

The proposed wall will be below grade and once the plantings are established will not be visible. An alternative approach to stabilization taken by properties to the west is the highly visible application of “shotcrete” concrete to the face of the bluff. DPD considers the project’s design to adequately address the above criterion.

6. *The requested variance would be consistent with the spirit and purpose of the environmentally critical policies and regulations.*

The requested variance achieves a reasonable protection of existing steep slope areas on this site.

DECISION – VARIANCE

DPD **CONDITIONALLY APPROVES** the requested variance to allow a stabilization wall to protect a single family structure to be developed within the steep slope buffer.

ANALYSIS - SEPA

Environmental review resulting in a Threshold Determination is required pursuant to the Seattle State Environmental Policy Act (SEPA), WAC 197-11, and the Seattle SEPA Ordinance (Seattle Municipal Code Chapter 25.05). The initial disclosure of the potential impacts from this project was made in the environmental checklist submitted by the applicant dated February 27, 2008. The information in the checklist, public comment, and the experience of the lead agency with review of similar projects form the basis for this analysis and decision.

The development site is located within several Environmentally Critical Areas (ECAs), thus the application is not exempt from SEPA review. However, SMC 25.05.908 provides that the scope of environmental review of projects within critical areas shall be limited to:

- 1) Documenting whether the proposal is consistent with the City’s ECA regulations in SMC 25.09; and
- 2) Evaluating potentially significant impacts on the critical area resource, in this case landslide-prone, steep slope and known slide areas, not adequately addressed in the ECA regulations.

This review includes identifying additional mitigation measures needed to protect the ECA in order to achieve consistency with SEPA and other applicable environmental laws. Environmental impacts of the project that may affect the geologically hazardous area include an increased rate of stormwater runoff, loss of vegetation and increased water pollution.

The SEPA Overview Policy (SMC 25.05.665 D) clarifies the relationship between codes, policies, and environmental review. Specific policies for each element of the environment, certain neighborhood plans, and other policies explicitly referenced may serve as the basis for exercising substantive SEPA authority. The Overview Policy states, in part, that "Where City regulations have been adopted to address an environmental impact, it shall be presumed that such regulations are adequate to achieve sufficient mitigation" subject to some limitations. Under such limitations/circumstances (SMC 25.05.665 D1-7) mitigation can be considered.

Short-term Impacts

The following temporary or construction-related impacts are expected: risk of erosion during periods of earth disturbance, the possibility of construction related landslide damage to the bluff and temporary loss of vegetation.

Several adopted codes and Director's Rules provide mitigation for some of the identified impacts. Under SMC 25.09.060 G grading in environmentally critical areas is limited to a window between April 1st and October 31st. Due to the fact that grading will be undertaken during construction, additional analysis of earth and grading impacts is warranted.

Earth/Soils

The ECA Ordinance and Directors Rule (DR) 33-2006 and 3-2007 require submission of a soils report to evaluate the site conditions and provide recommendations for safe construction in areas with landslide potential and/or a history of unstable soil conditions. A "Geotechnical Engineering Study," prepared by Robert Ward, PE, dated October 24, 2007, was submitted with this application and is undergoing separate geotechnical review by DPD. The construction plans, including shoring of excavations as needed and erosion control techniques are receiving separate review by DPD. Any additional information showing conformance with applicable ordinances and codes (ECA ordinance, The Stormwater, Grading and Drainage Control Code, DR 33-2006 and 3-2007) will be required prior to issuance of building permits. Applicable codes and ordinances provide extensive conditioning authority and prescriptive construction methodology to assure safe construction techniques are utilized; therefore, compliance with these applicable codes and ordinances will reduce or eliminate most short-term impacts to the ECA and no additional conditioning is warranted pursuant to SEPA policies.

Long-term Impacts

Long-term or use-related impacts are also anticipated as a result of this proposal including: increased surface water runoff due to greater site coverage by impervious surfaces and reduced canopy coverage until the replacement trees have achieved a mature size.

Several adopted City codes and/or ordinances provide mitigation for some of the identified impacts. Specifically these are: the ECA Ordinance, the Stormwater, Grading and Drainage Control Code which requires provisions for controlled tightline release to an approved outlet and may require additional design elements to prevent isolated flooding. Compliance with these applicable codes and ordinances is adequate to achieve sufficient mitigation of most long-term impacts and no further conditioning is warranted by SEPA policies.

