City of Bellevue
Department of Planning & Community Development
Land Use Division Staff Report

Proposal Name:	Pham Residence
Proposal Address:	6326 170th Place SE
Proposal Description:	Critical Areas Land Use Permit to reduce the 50 foot top of slope critical area buffer to 10 feet in order to construct a new 4,286 square foot footprint two story single family residence. The proposal includes 1,700 square feet of vegetation restoration/enhancement elsewhere on the site in order to mitigate the impact of reduced top of slope buffer.
File Number:	06-136172 LO
Applicant:	Loc and Melinda Pham
Decisions Included:	Administrative Decision for a Critical Areas Land Use Permit (Process II LUC 20.30P)
Planner:	Matthews Jackson, Senior Planner
State Environmental Policy Act Threshold Determination:	**Determination of Non-Significance**

Carol V Helland

Carol V. Helland
Environmental Coordinator
Dept. of Planning & Community Development

Director's Decision: **Approval with Conditions**

Carol V Helland for

Matthew A. Terry, Director Planner
Dept. of Planning and Community Development

Application Date:	December 6, 2006
Notice of Application Publication Date:	January 11, 2007
Decision Publication Date:	March 1, 2007
Project/SEPA Appeal Deadline:	March 15, 2007

For information on how to appeal a proposal, visit Development Services at City Hall or call (425) 452-6800 [TTY (425) 452-4636]. Appeal of the Decision must be made with the City Clerk by 5 PM on the date noted for appeal of the decision.

I. DESCRIPTION OF PROPOSAL

The applicant proposes to reduce the 50 foot top of slope buffer to 10 feet in order to construct a new 4,286 square foot footprint single-family home. The proposal includes 1,700 square feet of vegetation restoration/enhancement elsewhere on the site in order to mitigate the impact of the reduced top of slope buffer.

Site analysis was completed by Associated Earth Sciences, Inc in 2000 with supplemental analysis done in 2006 to address the impact of the specific construction design for the Pham residence. The reports analyzed the proposal and probable impacts to the critical slope buffer in accordance with the requirements of LUC Section 20.25H. As part of the assessment, Associated Earth Sciences performed a review of the pertinent geological maps, conducted a site reconnaissance to observe local topographic features, and excavated three borings to delineate the site soil conditions. No ground water seeps or surface water erosions were seen on the site. There was no evidence of historical earth movement.

The report concluded the proposed 10-foot buffer and building setback for the proposed home will not adversely impact the stability of the slope provided the development of the property and construction of the home is conducted in accordance with the recommendations presented in their November 3, 2000 geotechnical report and subsequent letters dated July 18, 2006, September 22, 2006 and November 15, 2006. See related condition of approval in Section IX.

The applicant has proposed to mitigate disturbance of the top of slope buffer by providing a native plant restoration plan covering 1,700 square feet of the site. This plan includes three tiers of proposed vegetation including 21 new trees to replace the 7 lost with the construction as well as a ground cover and shrub plan covering this 1,700 square foot area.

II. SITE DESCRIPTION AND CONTEXT

The subject property is vacant and is described as Parcel B of City of Bellevue Boundary Line Adjustment 01-118101 LW. This lot and the lot to the east (Parcel C) are accessed off of 170th Place SE from the Pinnacle subdivision, via a private 15-ft access/utilities easement. Slope gradients on the property generally range from approximately 25 to 35 percent, but steepened to approximately 40 to 45 percent over a maximum vertical height of approximately 18-feet in an area in the mid western portion of the site. The portion of steep slope on site that is regulated as a critical area is approximately 4,000 square feet in area. The steep slope critical area is located west of the proposed location of the home.

Property to the south of this site is developed and contains a single-family home. Property to the north is vegetated by mixed deciduous/coniferous trees with moderately thick to thick brush.

III. CONSISTENCY WITH LAND USE CODE/ZONING

A. Special District Requirements (Critical Area Overlay District LUC. 20.25H)

Bellevue's Land Use Code (LUC) Section 20.25H.120 designates steep slopes of 40 percent or greater that have a rise of at least 10 feet and exceed 1,000 square feet in area as critical areas. The proposed new construction is an allowed activity and shall meet the requirements of 20.25H.055.C which establishes performance standards for new development into critical area buffers; and LUC Section 20.25H.125 which establishes performance standards for geological hazard areas.

LUC Section 20.25H.055.C.2.a & b:

a. New facilities and systems are allowed within the critical area or critical area buffer only where no technically feasible alternative with less impact on the critical area or critical area buffer exists. A determination of technically feasible alternatives will consider:
   - ii. the function or objective of the proposed new facility;
   - iii. demonstration that no alternative location or configuration outside of the critical area or critical area buffer achieves the stated function or objective, including construction of new facilities or systems outside of the critical area;
   - iv. whether the cost of avoiding disturbance is substantially disproportionate as compared to the environmental impact of proposed disturbance; and
   - v. the ability of both permanent and temporary disturbance to be mitigated.

<u>Finding:</u> Access to this site is located along the eastern portion of the site and is shared with lot 4. The critical slope is west of the access easement and although there is a flat area at the toe of the slope the area is not accessible without disturbance to the critical slope. The proposed residence location is the shortest and most direct route from the access easement. The applicant has demonstrated through geotechnical reports and letters that there is no feasible alternative to the location of the structure with less impact to the critical slope. The applicant is mitigating the impact to the slope buffer through an 3-tiered native vegetation restoration plan equal to the area disturbed for the construction of the new residence.

b. If the applicant demonstrates no technically feasible alternative with less impact on the critical area or critical area buffer exists, then the applicant shall comply with the following:
   - i. location and design shall result in the least impacts on the critical area or critical area buffer:
   - ii. Disturbance of the critical area and critical are buffer, including disturbance of vegetation and soils, shall be minimized;

v. all work shall be consistent with applicable City of Bellevue codes and standards;

vii. associated parking and other support functions, including, for example mechanical equipment and maintenance sheds, must be located outside the critical area or critical area buffer except where no feasible alternative exists; and

viii. 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.

Finding: Placement of the structure is the most direct and shortest distance from the access easement. No disturbance associated with the construction, will occur within the critical slope. Geotechnical investigation concludes that placement of the structure within the buffer poses no impact to the slope. The design of the foundation utilizes preferred development standards including a stepped foundation to reduce changes in grade outside the building footprint and utilizing the foundation as earth retention rather than separate rockeries or retaining walls. Seven trees located within the proposed driveway and/or the footprint of the structure will be removed. As mitigation, 21 native trees and associated native shrub and ground cover will be planted on the property.

LUC Section 20.25H.125 Performance Standards – Steep Slopes. In addition to generally applicable performance standards, development within a 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 requirements for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function.

a. 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;

Finding: The proposed structure is located on the least sensitive sloped portion of the site without having to go through the critical slope. The access easement provides direct access to the proposed structure. The foundation is designed to step down following the natural contours as much as possible and; disturbance outside of the building footprint is limited to the driveway and entry walkway.

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

Finding: The critical slope is left undisturbed with this proposal except for a proposed site restoration plan which includes native trees, shrubs and ground cover equal to the buffer area disturbed

by the construction of the residence.

c. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties

<u>Finding</u>: As demonstrated in the supporting geotechnical documentation, the stability of adjacent critical slope areas will not result in a greater risk or a need for increase buffers on neighboring properties as a result of the proposed development.

d. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where grades slopes would result in increased disturbance as compared to use of retaining wall;

<u>Finding</u>: Retaining walls proposed with the construction of the residence have been required to be modified to satisfy performance standards limiting their use outside of the building envelope.

e. Development shall be designed to minimize imperious surfaces within the critical area and critical area buffer.

<u>Finding</u>: No impervious surfaces will be located within the modified critical area buffer, and overall impervious surface across the site will be minimal because of existing site constraints.

f. 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.

<u>Finding</u>: Retaining walls proposed with the building permit have been modified to satisfy this requirement.

g. 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;

<u>Finding</u>: As noted earlier in this report, freestanding retaining devices have been modified, and the foundation will be stepped to provide slope stability following the natural contour to the greatest extent feasible.

h. 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 in not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification;

Finding: This proposal does not include construction on slopes in excess of 40 percent.

i. 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

Finding: This proposal does not include construction on slopes in excess of 40 percent.

j. 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.

Finding: The applicant has provided a site restoration plan that will be required as a condition of approval of this permit.

B. Consistency with Standard Land Use Code Requirements

BASIC INFORMATION			
Zoning District	R-1		
Gross Site Area	36,862 square feet		
Protected Area	8,199 square feet (critical slope and 50-ft top of slope buffer)		
ITEM	**REQ'D/ALLOWED**	**PROPOSED**	**COMMENT**
Dwelling Units/Acre	1	1	
Minimum Lot Area	35,000 (22,750)	36,862	
Building Setbacks Front Yard Rear Yard Min. Side Yard 2 Side Yard Access Easement	 35 feet (25 feet) 25 feet (20 feet) 5 feet (5 feet) 20 feet (15 feet) 10-feet	 28 feet 148 feet 10 feet 25 feet 28 feet	Dimensional requirements may be modified pursuant to 20.25H.040 to avoid critical area impacts
Minimum Lot Coverage	35 percent	15 percent	

IV. 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 & grade Code, Utility Code,

Land Use Code, Noise Ordinance, Building Code and other construction codes adequately mitigate potential environmental impacts.

Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the Stat Environmental Policy Act (SEPA) requirements.

A. Earth and Water

The proposed project will require disturbance to the 50 foot top of slope critical area buffer in order to facilitate construction of a new single family home. When completed, the foundation of the proposed structure will be 10 feet from the top of the critical slope. No disturbance is proposed to the critical slope area.

Standard poured in place footing/foundation walls of the proposed home will provide retention for the daylight basement level. Grade changes outside of the footprint of the home will be minor. Storm water will be collected from impervious surfaces, including the driveway and roof area and discharged into an approved storm drainage system. Consequently, discharge of concentrated flows from the impervious surfaces will be avoided. A Temporary Erosion Sedimentation Control Plan is included in the project plans, and addresses all requirements for restoring the site to its current condition as well as erosion and sedimentation management practices. Existing codes and standards adequately mitigate expected impacts to earth and water resources. See related Condition of Approval in Section IX.

B. Animals

Numerous small animals and birds either use this site or are in close proximity. Other large animals such as deer, bear, and cougars have historically been present in the general vicinity. Construction on the site will likely result in a predictable reduction in the number of animals and the loss of some species within selected habitats due to habitat destruction, fragmentation, acceleration of edge and distance effects, and human disturbance. These impacts are adverse, but they are not environmentally significant and will be partially mitigated through the retention of existing vegetation and wildlife habitat.

C. Plants

The subject property is undeveloped and is currently sparsely vegetated with red cedar, Douglas fir, hemlock, big leaf maple and alder. Light to moderate underbrush consisting of Swordfern, Himalayan blackberries, field grasses, and other low-growing vegetation covers portions of the site. Field investigation indicates that much of the underbrush on the site has been removed or cut back. A paved driveway extends from SE Cougar Mt Way up through Lots 1 and 2. A cleared utility easement enters the site from the south along the boundary between Lots 3 and 4. The property to the north is vegetated with mixed deciduous/coniferous trees with moderately thick brush. The property to the south is developed with a single family residence.

Development of the site will involve removal of brush and trees in and around the

area of the proposed home. The immediate area around the home, access drive and walkways will be landscaped. The area within the 40 percent slope area and the surrounding 10-ft buffer will remain undisturbed. The applicant has submitted a 3-tiered restoration plan that includes native trees, shrubs and ground cover to mitigate the loss of trees and other vegetation due to the construction of the proposed residence and associated driveway. This plan includes 21 Douglas fir trees at a spacing of 9 feet minimum on center to mitigate the loss of 7 existing mature trees. Shrubs planted at a minimum spacing of 4 – 6.5 feet on center, and groundcover at 24 inches on center complete the restoration plan. In addition, the applicant must submit a combined Landscape Installation and Maintenance Security in the amount of 100 percent of the costs of site restoration, including labor, materials. See related Conditions of Approval in Section IX.

D. Noise

The site is adjacent to single-family residences whose residents are most sensitive to disturbance from noise during evening, late night and week end hours when they are likely to be at home. Construction noise will be limited by the City's Noise Ordinance (Chapter 9.18 BCC) which regulates construction hours and noise levels. See related Conditions of Approval in Section IX of this report.

V. SUMMARY OF TECHNICAL REVIEWS

A. Clearing & Grading Review

The Clearing and Grading Division of the Planning and Community Development 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 concurred with the findings within the Geotechnical Report.

VI. PUBLIC NOTICE AND COMMUNITY INPUT

Application Date:	December 6, 2006
Public Notice (500 feet):	January 11, 2007
Minimum Comment Period:	February 1, 2007

Notice of Application was published in the City of Bellevue's *Land Use Bulletin* and the *King County Journal* on January 11, 2007. It was mailed to property owners within 500 feet of the project site. No comments were received from the public as of the writing of this staff report.

VII. DECISION CRITERIA

Land Use Code Decision Criteria LUC 20.30P.140

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

Finding: The applicant has already applied for necessary combination new single family building and clearing and grading permit.

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

Finding: The applicant will be using retaining foundation walls and all other retaining walls will adhere to all applicable performance standards of the Land Use Code.

c. 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 proposal meets the performance standards of LUC Section 20.25H.055.C.2 for expansion of facilities into a critical area or it's buffer and LUC Section 20.25H.125 for areas of geological hazards.

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

Finding: The site is adequately served by existing public facilities and vehicular access will be designed to meet city standards for emergency access.

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

Finding: The applicant will be required to implement the Site Restoration Plan sheet C1 of C2 stamped January 22, 2007, as a condition of approval of this permit.

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

Finding: As conditioned and discussed in this report, the proposal complies with all applicable code requirements including, but not limited to, performance standards for development in geologic hazard areas, critical area report requirements, and Critical Areas Land Use Permit decision criteria.

VIII. CONCLUSION AND DECISION

After conducting the various administrative reviews associated with this proposal, including applicable Land Use consistency, SEPA, City Code, and standard compliance reviews, the Director of Planning and Community Development does hereby **approve with conditions,** the proposed reduction in the critical slope top of slope critical area buffer from 50 feet to 10 feet.

A Critical Areas Land Use Permit setback modification 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 pursuant to LUC 20.30P.150.

IX. CONDITIONS OF APPROVAL

A. The following conditions are imposed under authority referenced:

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

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Tom McFarlane, 425-452-5207
Land Use Code- BCC Title 20.25H	Matthews Jackson, 425-452-2729
Noise Control- BCC 9.18	Matthews Jackson, 425-452-2729

B. General Conditions:

The following conditions are imposed under the Bellevue City Code Referenced:

1. **Geotechnical Recommendations:** The new home must be constructed in accordance with the recommendations presented in the November 3, 2000 geotechnical report and subsequent letters dated July 18, 2006, September 22, 2006 and November 15, 2006, prepared by Associated Earth Sciences, Inc.

   Authority: Land Use Code Section 20.25H.125
   Reviewer: Matthews Jackson, Planning and Community Development Department

2. **Rainy Season restrictions:** Due to the proximity to a steep slope, no clearing and grading activity may occur during the rainy season, which is defined as November 1 through April 30 without written authorization of the Department of Planning and Community Development. 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, Planning and Community Development Department

3. **Restoration Plan:** The applicant shall implement the Site Restoration Plan sheet C1 of C2, stamped January 22, 2007 that includes mitigation planting for impacts to the site associated with the reduced top of slope critical area buffer. Any modifications to this plan must be reviewed and approved by the Planning and Community Development Department.

   Authority: Land Use Code Section 20.25H.210
   Reviewer: Matthews Jackson, Planning and Community Development Department

4. **Landscape Maintenance Security:** The applicant must submit a combined Landscape Installation and Maintenance Security in the amount of 100 percent of the costs of site restoration, including labor, materials. The security may be released after the vegetation has successfully been installed and maintained for a period of three years.

   Authority: Land Use Code Section 20.25H.125.J and 20.25H.220.D
   Reviewer: Matthews Jackson, Planning and Community Development Department

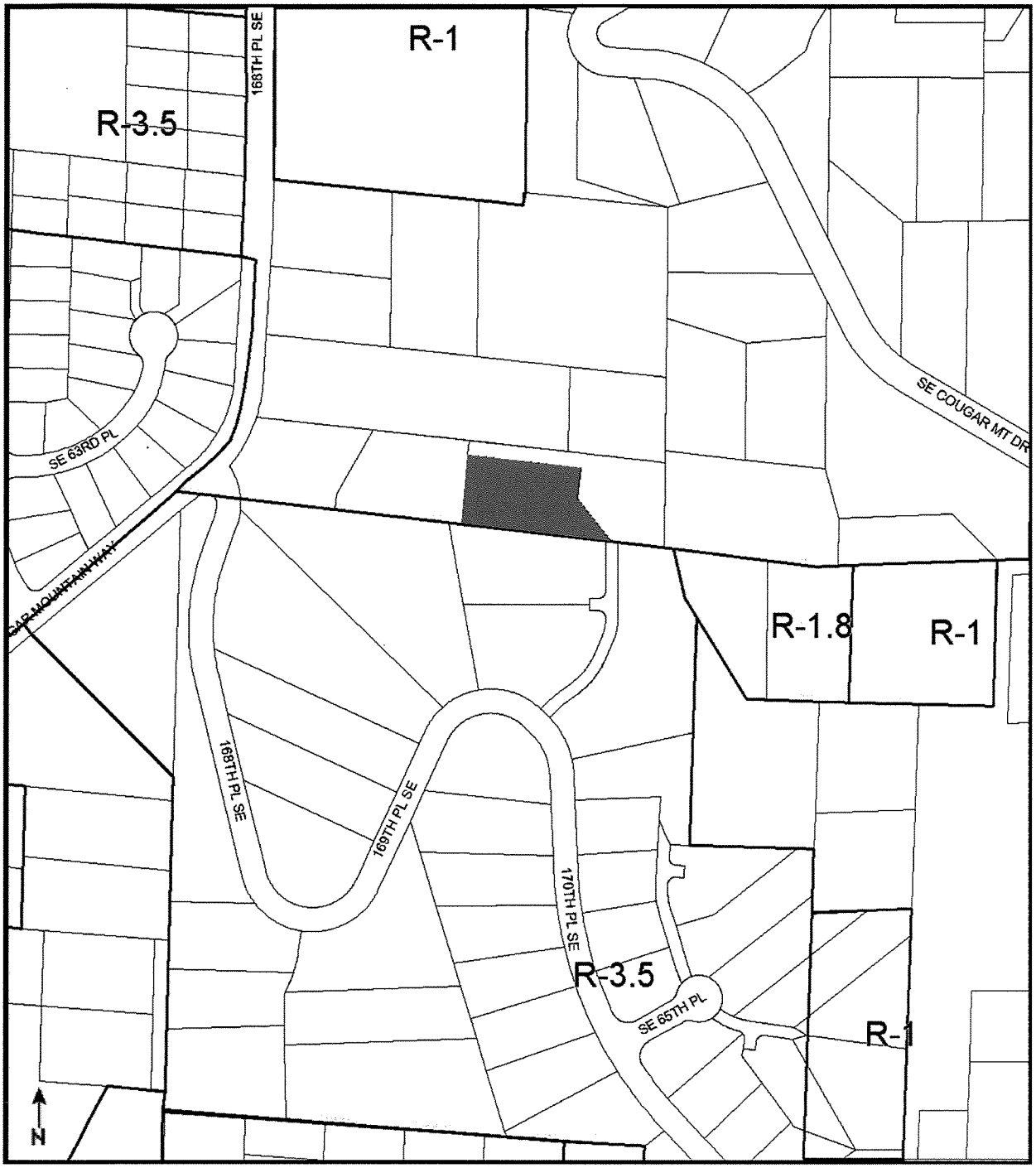
5. **Noise Control:** The proposal will be subject to normal construction hours of 7 am to 6 pm Monday through Friday and 9 am to 6 pm on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Upon written request to PCD, work hours may be extended to 10 pm if the criteria for extension of work hours as stated in BCC 9.18 can be met. Use of heavy equipment will be prohibited outside of normal construction hours.

   Authority: Bellevue City Code 9.18
   Reviewer: Matthews Jackson, Planning and Community Development Department

ATTACHMENTS

A. Zoning Map/Vicinity Map
B. Environmental Checklist
C. Critical Areas Report

ATTACHMENT A



Zoning

Pham Residence

City of Bellevue
Information Technology
Geographic Information Services
February 28, 2007

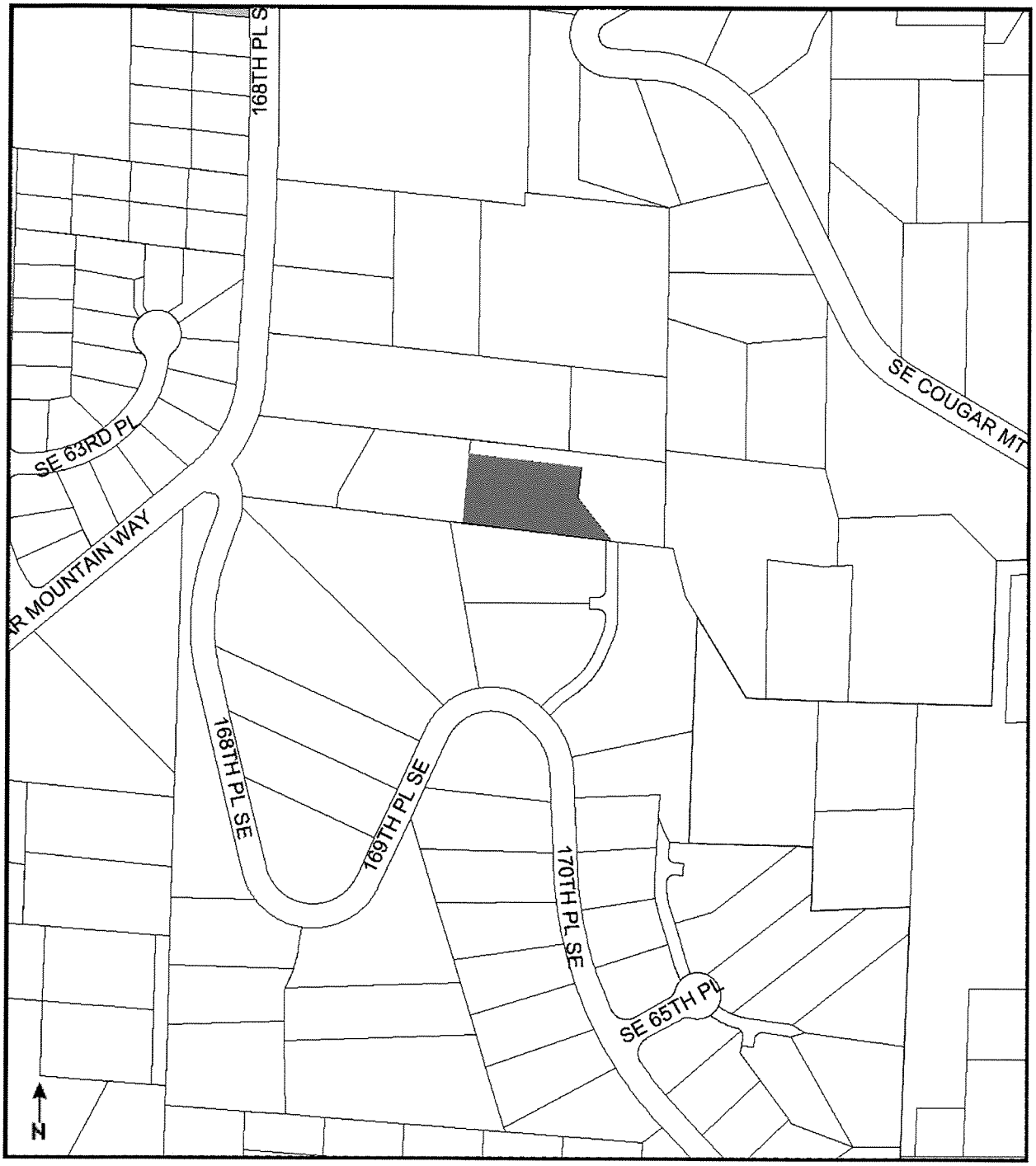
- Single Family
- Multi Family
- Office
- Commercial
- Light Industrial
- Evergreen Highlands
- Institutional

Design Districts
- Subdistrict A
- Subdistrict B
- Subdistrict C
- Downtown Core
- SingleFamily Transition Zone
- Multi Family Transition Zone

This map is derived from the Bellevue Geographic Information System and designed for City staff use. It is not guaranteed accurate.

If you have specific questions concerning information contained on this map please contact the department shown.

VICINITY MAP



Vicinity Map

Pham Residence

Site
Park
School

VICINITY MAP

City of Bellevue
Information Technology
Geographic Information Services
February 28, 2007

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ATTACHMENT B

ENVIRONMENTAL CHECKLIST

4/18/02

Thank you in advance for your cooperation and adherence to these procedures. If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call the Permit Center (425-452-6864) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4). Our TTY number is 425-452-4636.

INTRODUCTION
Purpose of the Checklist:

The State Environmental Policy Act (SEPA), Chapter 43.21c RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the City of Bellevue identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the City decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Answer the questions briefly, with the most precise information known, or give the best description you can. You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer or if a question does not apply to your proposal, write "do not know" or "does not apply." Giving complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the Planner in the Permit Center can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. Include reference to any reports on studies that you are aware of which are relevant to the answers you provide. The City may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impacts.

Use of a Checklist for Nonproject Proposals: *A nonproject proposal includes plans, policies, and programs where actions are different or broader than a single site-specific proposal.*

For nonproject proposals, complete the Environmental Checklist even though you may answer "does not apply" to most questions. In addition, complete the Supplemental Sheet for Nonproject Actions available from Permit Processing.

For nonproject actions, the references in the checklist to the words *project*, *applicant*, and *property* or *site* should be read as *proposal*, *proposer*, and *affected geographic area*, respectively.

Attach an 8 ½" x 11 vicinity map which accurately locates the proposed site.

RECEIVED
DEC 0 6 2006
PERMIT PROCESSING

Estimated date of completion of the proposal or timing of phasing:

12/15/2007

Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No

List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. Geotechnical Engineering Report Critical Area Report, Limited Top of Slope Setback Evaluation.

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. List dates applied for and file numbers, if known.

No

List any government approvals or permits that will be needed for your proposal, if known. If permits have been applied for, list application date and file numbers, if known.

Permit # 06-123399 BS
Project # 06-123400 TC

Please provide one or more of the following exhibits, if applicable to your proposal.
(Please check appropriate box(es) for exhibits submitted with your proposal):

☐ Land Use Reclassification (rezone) Map of existing and proposed zoning

☐ Preliminary Plat or Planned Unit Development
Preliminary plat map

☐ Clearing & Grading Permit
Plan of existing and proposed grading
Development plans

☒ Building Permit (or Design Review)
Site plan
Clearing & grading plan

☐ Shoreline Management Permit
Site plan

A. ENVIRONMENTAL ELEMENTS

1. **Earth**

a. General description of the site: ☐ Flat ☐ Rolling ☐ Hilly ☒ Steep slopes ☐ Mountains ☐ Other

b. What is the steepest slope on the site (approximate percent slope)?

40%

c. What general types of soil are found on the site (for example, clay, sand, gravel, peat, and muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Medium dense to very dense sand with gravel overlying bedrock.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Some back-filling of foundation walls and retaining walls. Source of fill will either be from grading or material brought in.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

No

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

15 - 20%

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

- Building foundation to bear directly on bedrock.
- Use of silt fencing
- Surface runoff to be properly controlled
- Soil/fill to be reused should be stored in a way to reduce erosion from the stockpile.

2. AIR

a. What types of emissions to the air would result from the proposal (i.e. dust, automobile odors, and industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Dust of excavation / grading

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No

c. Proposed measures to reduce or control emissions or other impacts to the air, if any:

Dampen grounds before excavation

3. WATER

a. Surface

(1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If

appropriate, state ...at stream or river it flows into.

NO

(2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If Yes, please describe and attach available plans.

NO

(3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

N/A

(4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

NO

(5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

NO

(6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

NO

b. Ground

(1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description.

NO

(2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.) Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

NONE

c. Water Runoff (Including storm water)

(1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water will be routed into underground storm drains, which go into retention pond at bottom of lot 1

(2) Could waste materials enter ground or surface waters? If so, generally describe.

NO

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

- Surface runoff will be controlled and directed into storm drains, and tightlined drain.
- Use of silt fencing
- Clear plastic will be used to cover bare slope during construction.

4. Plants

a. Check or circle types of vegetation found on the site:

- [x] deciduous tree: alder, maple, aspen, other
- [ ] evergreen tree: fir, cedar, pine, other
- [x] shrubs
- [ ] grass
- [ ] pasture
- [ ] crop or grain
- [ ] wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
- [ ] water plants: water lily, eelgrass, milfoil, other
- [ ] other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Some trees will be removed for building site, also some brushes/natural vegetation will be removed during grading.

c. List threatened or endangered species known to be on or near the site.

NONE

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

We plan to replant many trees along the border of lot 3 (our lot) and lot 2 (to the west). Our landscaping plans also use of native and evergreen plants, which should preserve the natural settings of the lot.

5. ANIMALS

a. Check or circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

- ☐ Birds: hawk, heron, eagle, songbirds, other:
- ☐ Mammals: deer, bear, elk, beaver, other:
- ☐ Fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.

NONE

c. Is the site part of a migration route? If so, explain.

NO

d. Proposed measures to preserve or enhance wildlife, if any:

N/A

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy need? Describe whether it will be used for heating, manufacturing, etc.

ELECTRIC and NATURAL GAS for heating

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

NO

c. What kinds of energy conservation features are included in the plans of the proposal? List other proposed measures to reduce or control energy impacts, if any:

Doubled-pane windows, WALL insulations ....

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

NO

(1) Describe special emergency services that might be required.

N/A

(2) Proposed measures to reduce or control environmental health hazards, if any.

N/A

b. Noise

(1) What types of noise exist in the area which may affect your project (for example, traffic, equipment, operation, other)?

NONE

(2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example, traffic, construction, operation, other)? Indicate what hours noise would come from the site.

- Construction / equipment noise
- Will limit noise to only during business hrs.

(3) Proposed measures to reduce or control noise impacts, if any:

- Limit noise to only during normal business hrs.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

Site is currently vacant lot. Homes on lots to south and north.

b. Has the site been used for agriculture? If so, describe.

NO

c. Describe any structures on the site.

NONE

d. Will any structures be demolished? If so, what?

NO

e. What is the current zoning classification of the site?

R-4

f. What is the current comprehensive plan designation of the site?

VACANT LAND

g. If applicable, what is the current shoreline master program designation of the site?

N/A

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

N/A

I. Approximately how many people would reside or work in the completed project?

4

j. Approximately how many people would the completed project displace?

NONE

k. Proposed measures to avoid or reduce displacement impacts, if any:

N/A

i. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Proposal is for single-family home, which is consistent with existing land uses of this site and neighboring lots.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

1 unit (single-family home)

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Ø

c. Proposed measures to reduce or control housing impacts, if any:

N/A

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

32 ft max, materials: stucco / siding

b. What views in the immediate vicinity would be altered or obstructed?

NONE

c. Proposed measures to reduce or control aesthetic impacts, if any:

N/A

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

N/A

b. Could light or glare from the finished project be a safety hazard or interfere with views?

N/A

c. What existing off-site sources of light or glare may affect your proposal?

N/A

d. Proposed measures to reduce or control light or glare impacts, if any:

N/A

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

NONE

b. Would the proposed project displace any existing recreational uses? If so, describe.

NO

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

N/A

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

NO

b. Generally describe any landmarks or evidence of historic, archeological, scientific, or cultural importance known to be on or next to the site.

N/A

c. Proposed measures to reduce or control impacts, if any:

N/A

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Site is accessed by Tract A (170th)

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

NO, approximately 1 mile

c. How many parking spaces would be completed project have? How many would the project eliminate?

4 parking spaces (4-car garage)

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not Including driveways? If so, generally describe (indicate whether public or private).

NO

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

NO

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Do not know

g. Proposed measures to reduce or control transportation impacts, if any:

N/A

15. Public Services

a. Would the project result in an increased need for the public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

NO

b. Proposed measures to reduce or control direct impacts on public services, if any.

N/A

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

N/A

Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature.....

Date Submitted.....12/1/06.....

ATTACHMENT C

Associated Earth Sciences, Inc.

Celebrating 25 Years of Service

November 15, 2006
Project No. KE060532A

Loc and Melinda Pham
327 240th Place SE
Sammamish, Washington 98074

Subject: Critical Area Report
Pinnacle, Lot 3
Bellevue, Washington

Dear Mr. and Mrs. Pham:

In accordance with your request and City of Bellevue requirements, we have completed our review of Geologic Hazard Areas at the subject site. The findings of our review are presented in the following critical area report. This report supplements our previous report and letters prepared for the project site including:

- "Limited Deck Footing Location Evaluation, Pinnacle Lot 3," prepared for Loc and Melinda Pham, dated September 22, 2006 (Project No. KE060532A);
- "Limited Top of Slope Setback Evaluation, Pinnacle Lot 3," prepared for Loc and Melinda Pham, dated July 18, 2006 (Project No. KE060532A); and
- "Subsurface Exploration, Geologic Hazard, and Preliminary Geotechnical Engineering Report, Bruce Doig Property," prepared for Bruce Doig, dated November 3, 2000 (Project No. KE00560A). Our November 2000 report addressed the subject site and the adjacent properties to the east and west.

PROJECT DESCRIPTION

The subject lot is part of a four-lot site of approximately 3.5 acres known as the Pinnacle development. The site is located near the intersection of 168th Place SE and SE Cougar Mountain Way in Bellevue, Washington. The topography of the site generally slopes downward to the west. The lots are consecutively numbered from the lower (western) end of the site (Lot 1) to the upper (eastern) end of the site (Lot 4). The subject lot is Lot 3.

At the time of the exploration conducted for our November 2000 report, the site contained one single-family residence located on Lot 1 near the western end of the site. The remainder of the site was covered by trees and brush. Associated Earth Sciences, Inc. (AESI) visited the site again in July 2006. At the time of our July 2006 site visit, the previously observed residence had been demolished and removed. A new paved driveway had been constructed from SE Cougar Mountain Way into the lower two lots on the site (Lots 1 and 2). Based on surface observations, it also appeared that underground utilities have been placed on the site. The underground utilities have been placed primarily along the far southern side of the site, with some along the lower northern half of the site and along the lower portion of the new driveway. Outside of the utility areas, the area of Lot 3 appeared to be undisturbed and vegetated by trees and brush.

Our understanding of development plans for the subject lot is based on review of undated elevation drawings and a topographic site plan provided by the owners and on discussions with Mr. Loc Pham. It is our understanding that current plans call for the construction of a single-family home with an attached garage in the eastern (upper) portion of the lot. The home will consist of a two stories over a daylight basement. Vehicular access to the home would be provided by a driveway entering the lot from the adjacent development to the south, along the Lot 3/Lot 4 boundary.

CITY OF BELLEVUE
CRITICAL AREA REPORT SUBMITTAL REQUIREMENTS

1. IDENTIFICATION AND CLASSIFICATION OF ALL CRITICAL AREAS AND CRITICAL AREA BUFFERS ON THE SITE

In accordance with the *Bellevue Land Use Code*, the following Geologic Hazard Areas are classified as "Critical Areas":

- Landslide Hazard Areas;
- Steep Slope Hazard Areas; and
- Coal Mine Hazard Areas.

Landslide Hazard Areas are defined as areas of slopes of 15 percent or steeper with more than 10 feet of rise that also display any of the following characteristics:

a. Areas of historic failures, including those areas designated as Quaternary slumps, earthflows, mudflows, or landslides.
b. Areas that have shown movement during the Holocene Epoch, or that are underlain by landslide deposits.
c. Slopes that are parallel or subparallel to planes of weakness in subsurface materials.
d. Slopes exhibiting geomorphological features indicative of past failures, such as hummocky ground and back-rotated benches on slopes.

e. Areas with seeps indicating a shallow ground water table on or adjacent to the slope face.
f. Areas of potential instability because of rapid stream incision, stream bank erosion, and undercutting by wave action.

Steep Slope Hazard Areas consist of slopes of 40 percent or more that have a rise of at least 10 feet and exceed 1,000 square feet in area.

Coal Mine Hazard Areas consist of areas designated on the coal mine area maps or in the coal mine area regulations as potentially affected by abandoned coal mines.

Subsurface exploration conducted for our November 2000 study included three exploration pits within Lot 3. The exploration pits encountered a surface veneer of topsoil and glacial outwash ranging in thickness from approximately 1 to 2.5 feet overlying bedrock of the Blakeley Formation. The bedrock consisted of moderately hard to hard sandstone and siltstone. No landslide deposits, such as mudflow sediments or slide debris, were encountered. During our reconnaissance of the site, no evidence of historical earth movement was observed, such as landslide scarps, slumps, hummocky topography, tension cracking, reversed slope benches, or unusually deformed trees. No emergent seepage was observed, and the site is not located adjacent to a stream or other water bodies.

Review of the previously referenced topographic site plan provided by the site owners indicates that slope gradients on the property generally range from approximately 25 to 35 percent, but steepen to approximately 40 to 45 percent over a maximum vertical height of approximately 18 feet in an area in the western portion of the site. The on-site area of the portion of the 40 percent or steeper slope that is at least 10 feet in height is approximately 4,000 square feet.

Review of a Washington Department of Natural Resources Map titled *Map of Coal Mine Workings in Part of King County, Washington* by Timothy Walsh (1983) indicates that the nearest underground coal mine workings are located approximately ¼ mile to the south of the site. No surface evidence of coal mines were observed at the site.

Based on the topographic and subsurface conditions at the site, our site reconnaissance, and review of the referenced record of coal mine workings in the area, it is our opinion that Geologic Hazard Areas constituting Critical Area status are limited to that portion of the site exhibiting a slope gradient equal to or steeper than 40 percent and at least 10 feet in vertical height. The location of the steep (40 percent or steeper) slope area relative to the proposed location of the home is depicted on the Site Plan, Figure 1. It should be noted that the steep slope area depicted on Figure 1 includes some portions of the steep slope less than 10 feet in height.

Title 20.25H.120.B states that a buffer of at least 50 feet must be established at the top of a Steep Slope Hazard Area. Title 20.25H.120.C states that a structure setback of at least 75 feet is also required from the top of Steep Slope Hazard Areas. These sections of the code also

state that buffer or structure setbacks can be modified through an approved critical area report. The proposed development plans for the site to include a 10-foot buffer/building setback from the Steep Slope Hazard Area. The proposed buffer/setback is depicted on Figure 1.

2. IDENTIFICATION AND CHARACTERIZATION OF ALL CRITICAL AREAS AND CRITICAL AREA BUFFERS ON THOSE PROPERTIES IMMEDIATELY ADJACENT TO THE SITE

Subsurface conditions encountered on the adjacent lots to the west (Lot 2) and east (Lot 4) at the time of our 2000 geotechnical study were similar to those encountered on Lot 3. Although no subsurface exploration was conducted on the adjacent properties to the north and south, no geomorphic indications of past landslide activity or emergent seepage on these properties were observed. It should be noted that we did not have access to the adjacent properties to the north and south, and our observations were limited to those made from the subject site. The previously referenced map of coal mine workings in the area indicates that the nearest coal mines to the subject site are approximately ¼ mile to the south.

An undated topographic map of the entire four-lot Pinnacle property provided by ESM Consulting Engineers, LLC indicates that areas of 40 percent or steeper slopes are present on the adjacent lots to the east and west of Lot 3. These areas are not continuous with the 40 percent slope area on Lot 3. Review of the previously referenced topographic site plan of the subject site (Figure 1) indicates that the 40 percent slope area on Lot 3 extends onto the adjacent property to the north. No topographic plan was available for the adjacent property to the south. The property to the south is developed and contains a single-family home. It is apparent that some grading of this lot occurred during development, including construction of a rockery. Slope gradients on the site were visually estimated to exceed 40 percent grade in some areas, and most or all of these areas appeared to have been graded. It was not clear from our visual evaluation if the steep (40 percent or steeper) areas on the lot to the south exceed 10 feet in height or 1,000 square feet in area. The steep (40 percent or steeper) slopes on the adjacent lot to the south are not continuous with the Steep Slope Hazard Area on the subject site.

3. IDENTIFICATION OF EACH REGULATION OR STANDARD OF THIS CODE PROPOSED TO BE MODIFIED

Title 20.25H.120.B states that a buffer of at least 50 feet must be established at the top of a Steep Slope Hazard Area. Title 20.25H.120.C states that a structure setback of at least 75 feet is also required from the ~~top~~ toe of Steep Slope Hazard Areas. These sections of the code also state that buffer or structure setbacks can be modified through an approved critical area report. The proposed development plans for the site include a 10-foot buffer/building setback from the 40 percent slope area. The proposed buffer/setback is depicted on Figure 1. – top or toe

4. A HABITAT ASSESSMENT CONSISTENT WITH THE REQUIREMENTS OF 20.25H.165

The subject site is undeveloped and is currently vegetated by scattered trees (cedar, fir, hemlock, maple, and some alder) and light to moderate underbrush, such as ferns, blackberries, field grasses, and other low-growing vegetation. Much of the underbrush present on the site at the time of our 2000 study has been removed or cut back. Similar vegetative cover is located on the lots to the east and west. A paved driveway extends from SE Cougar Mountain Way up through Lot 1 and into Lot 2. A cleared utility easement enters the site from the south along the Lot 3/Lot 4 boundary. The property to the north is vegetated by mixed deciduous/coniferous trees with moderately thick to thick brush. The property to the south is developed single-family residential with perimeter landscaping. No wildlife was observed at the site at the time of our November 2006 site visit.

Development of the site will involve removal of brush and trees in and around the area of the proposed home. We anticipate that the area surrounding the home, access drive, and walkways will be landscaped. The area within the 40 percent slope area and the surrounding 10-foot buffer will remain undisturbed. Best management practices will be maintained to control erosion during construction. Erosion hazards and mitigation to be employed during construction are discussed in our November 2000 geotechnical report, a copy of which is attached.

5. AN ASSESSMENT OF THE PROBABLE CUMULATIVE IMPACTS TO CRITICAL AREAS RESULTING FROM DEVELOPMENT OF THE SITE AND THE PROPOSED DEVELOPMENT

As proposed, a 10-foot buffer and building setback for the proposed home will be established from the on-site critical area (i.e., the Steep Slope Hazard Area). It is our opinion that reducing the buffer and building setback from the standard widths of 50 and 75 feet, respectively, will not adversely impact the stability of the slope, any of the existing structures, or the proposed home, provided development of the property and construction of the home is conducted in accordance with the recommendations presented in our 2000 geotechnical report and subsequent letters. This opinion is based on the lack of historical landslide activity on the site, and the topographic and subsurface conditions present.

– is this an adequate analysis

6. AN ANALYSIS OF THE LEVEL OF PROTECTION OF CRITICAL AREA FUNCTIONS AND VALUES PROVIDED BY THE REGULATIONS OR STANDARDS OF THIS CODE, COMPARED WITH THE LEVEL OF PROTECTION PROVIDED BY THE PROPOSAL

Development within or adjacent to Steep Slope Hazard Areas is regulated to avoid alterations that increase the risk of landsliding and related damage. As previously discussed, the *Bellevue Land Use Code* calls for a minimum 50-foot buffer and a 75-foot structure setback from the top of Steep Slope Hazard Areas. The proposed development will avoid disturbance within the critical area. The proposal includes reducing the buffer at the top of the Steep Slope Hazard Area to 10 feet and establishing a minimum structure setback concurrent with the buffer. No disturbance will occur in the buffer.

Although Lot 3 does contain a steep slope hazard, the slope gradients in this area are only slightly in excess of 40 percent (approximately 40 to 45 percent). The subject site is underlain at a shallow depth (approximately 1 to 2.5 feet) by bedrock consisting of moderately hard to hard siltstone and sandstone. We have recommended that the footings for the proposed home be founded directly on the bedrock. The bedrock exhibits a high shear strength that presents a low risk of landsliding under the topographic conditions present. In addition, the proposed home will be located in the flattest, most naturally stable portion of the site. The Steep Slope Hazard Area, including its natural landforms and vegetation, will be preserved.

The foundation walls of the proposed home will consist of retaining walls for the daylight basement level. Grade changes outside of the footprint of the home will be minor. Storm water will be collected from impervious surfaces, such as the driveway and roof, and discharged to the storm drainage system. Consequently, discharge of concentrated flows from the impervious surfaces will be avoided. Given the grading, construction methods, and building layout proposed, and the topographic and subsurface conditions present, it is our opinion that the reduced steep slope setback/buffer proposed shall not result in greater risk or a need for increased buffers on the neighboring properties.

constructed methods

7. A DISCUSSION OF THE PERFORMANCE STANDARDS APPLICABLE TO THE CRITICAL AREA AND PROPOSED ACTIVITY PURSUANT TO LUC 20.25H.160, AND RECOMMNEDATION FOR ADDITIONAL OR MODIFIED PERFORMANCE STANDARDS

doesn't address the habitat issue

Bellevue Land Use Code 20.25H.160 addresses potential impacts on species of local importance based on proposed modifications to critical areas. No modification of the Critical (Steep Slope) Area within the site is proposed, and it is our opinion that the proposed reduction in the critical area setback will not increase the risk of landslide activity at the site and on the surrounding properties, including within the critical area, provided the recommendations in our geotechnical reports and letters are properly followed. We recommend that site grading and footing subgrade preparation be monitored by AESI during construction to verify that

construction is conducted in conformance with our recommendations and to provide additional geotechnical consultation, as warranted, in the event that unforeseen field conditions are encountered.

8. A DISCUSSION OF THE MITIGATION REQUIREMENTS APPLICABLE TO THE PROPOSAL PURSUANT TO LUC 20.25H.210, AND A RECOMMENDATION FOR ADDITIONAL OR MODIFIED MITIGATION, IF ANY

Bellevue Land Use Code 20.25H.210 addresses requirements for developing mitigation and restoration plans associated with modification of critical areas. The proposed project will not include modification of the Critical (Steep Slope) Area of the site, and it is our opinion that the proposed reduction in the critical area setback will not increase the risk of landslide activity at the site and on the surrounding properties, including within the critical area. Therefore, it is our opinion that a mitigation and restoration plan is not required as part of this critical area report.

We appreciate this opportunity to have been of continued service to you with this project. If you should have any questions, please do not hesitate to call.

Sincerely,
ASSOCIATED EARTH SCIENCES, INC.
Kirkland, Washington

10/15/06
EXPIRES: 5/3/08

Timothy J. Peter, P.E.G.
Senior Project Geologist

Bruce L. Blyton, P.E.
Principal

Attachments: Figure 1. Site Plan
Subsurface Exploration, Geologic Hazard, and Preliminary Geotechnical Engineering Report, Bruce Doig Property, dated November 3, 2000

TJP/ld
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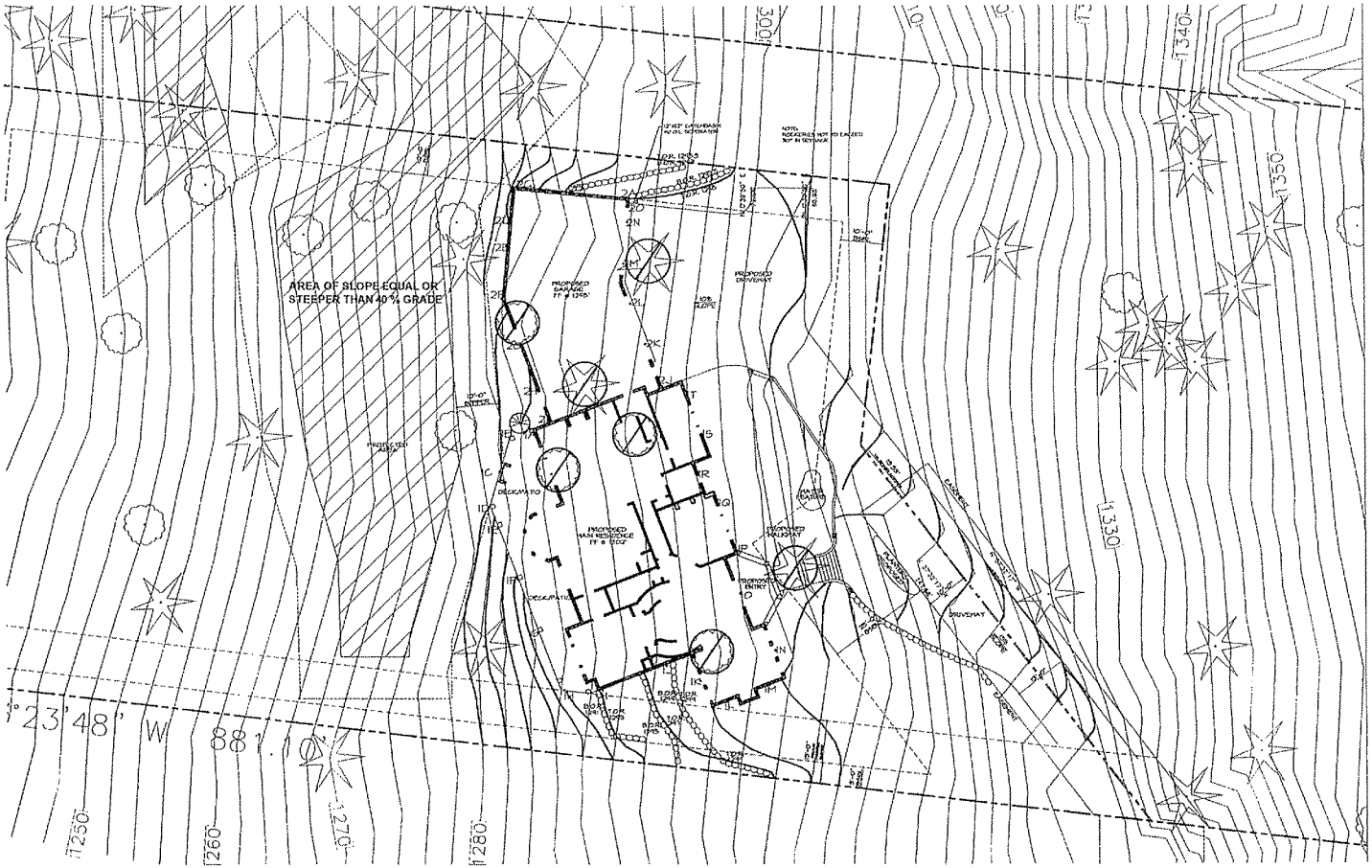
Projects\20060532\KE\WP



N

NO SCALE

Associated Earth Sciences, Inc.

SITE PLAN
PHAM RESIDENCE
BELLEVUE, WASHINGTON

FIGURE 1
DATE 11/06
PROJECT NO. KE060532A

C:\60532 Pham Residence \ 060532 Site Plan.dwg