

## **Board of Adjustment Meeting**

Normandy Park City Hall, City Council Chambers

801 SW 174th Street

April 26, 2007

7:00 p.m.

### **AGENDA**

- I. CALL TO ORDER
- II. ROLL CALL
- III. APPROVAL OF AGENDA
- IV. APPROVAL OF MINUTES - February 22, 2007
- V. CORRESPONDENCE
- VI. PUBLIC COMMENT
- VII. OLD BUSINESS –
  1. **V07-01, JOSEPH COLUCCIO, 19417 EDGECLIFF DR. SW.**  
Continuation of the public hearing for an environmentally sensitive areas variance request to construct a retaining wall at the top of the bluff, 3' further into the sensitive area. Site visit to take place after the meeting is opened at 7pm.
  2. **V06-03, JOHN RANKIN, 700 SW NORMANDY RD. Approval of Findings of Fact and Conclusions of Law for the appeal of an administrative decision.**
  3. **V07-02, JOHN AXEL AND TRACEY NELSON, 19640 4<sup>TH</sup> AVE SW.**  
Approval of Findings of Fact and Conclusions of Law for a zoning variance.
- VIII. ADJOURNMENT

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2  
3 **MEETING MINUTES**  
4 **City of Normandy Park**  
5 **BOARD OF ADJUSTMENT**  
6 **February 22, 2007**  
7 **7:00 p.m.**  
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9

10  
11 **I. CALL TO ORDER**  
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13 Chairman Pat Presentin called the meeting to order at 7:02 p.m.  
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15 **II. ROLL CALL**  
16

17 Boardmembers present: Tom Baker, Garry Fanthorpe, David  
18 Hohimer, Pat Presentin, Jack Ringdahl,  
19 Colleen West  
20 Boardmember excused: Linda Hughes  
21 Staff present: John Adamson, Planning Manager  
22 Noah Davis, Associate Planner  
23

24 **M/S/C/U Fanthorpe/Baker – “I move to approve the meeting minutes**  
25 **from January 25, 2007”. Motion passed 5-0.**  
26

27 The Rankin appeal (V06-03) was moved to the second item on the  
28 agenda since the proponent was not present.  
29

30 **M/S Fanthorpe/Baker – “Table the Rankin appeal until a later time**  
31 **today”.**  
32

33 **III. NEW BUSINESS**  
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35 **V07-01, Joseph Coluccio, 19417 Edgecliff Dr. SW. Environmentally**  
36 **Sensitive Areas variance to construct a retaining wall 3 feet further**  
37 **into a bluff.**  
38

39 Associate Planner Davis presented the staff report.  
40

41 Planning Manager Adamson reiterated that the City’s Geotech did not  
42 know if the retaining wall, as proposed, would be less damaging to the  
43 environment than moving it closer to the house. He also stated that there  
44 are some conflicting views on what is the best way to mitigate for the  
45 retaining wall at the bulkhead location.  
46

47 Boardmember Baker wanted clarification on where the wall was going to  
48 be constructed.  
49

50 Boardmember West described the site and says she knows the property  
51 well and wanted to make sure that everyone was aware of that.

52  
53 **Joseph Coluccio, 19417 Edgecliff Drive SW**

54 Mr. Coluccio is the owner of the property and he stated that the wall was  
55 necessary to prevent any more erosion and to stabilize his property.

56  
57 **Gene Peterson, Senior Planner, RH2 Engineering, applicant's project**  
58 **and permitting manager**

59 Mr. Peterson went through how the wall would be built, what mitigation  
60 was proposed and what the geologic processes are for this project. The  
61 soldier pile wall will parallel the existing wall and will be approximately 3  
62 feet west (Soundward) of it. The wall will actually have a similar if not  
63 lower profile than what currently exists.

64  
65 Mr. Coluccio stated that the wall needs to be constructed 3 feet west of  
66 the current wall because it would actually prevent the dirt from sliding  
67 down the slope and minimize disruption of the slope during construction.  
68 He stated that this is the business that he is in and is confident in the  
69 construction process they would implement for this wall. He said that this  
70 was the minimum necessary because they had to put in drainage behind  
71 the new wall and the workers needed room to move in between the walls.  
72 The technique to be used was drilling holes, placing the soldier piles in  
73 the holes and filling it in with concrete. There will be at least 20 feet of  
74 buried depth for the beams.

75  
76 Chairman Pressentin read into the record a letter from Mike and Ericka  
77 Scholz they were concerned that the approval of this project would  
78 undermine the bluff and that it would impact their view.

79  
80 Boardmember West wanted to know how much horizontal soil would be in  
81 between the bottom of the soldier pile wall and the slope face.

82  
83 Mr. Peterson said that it would be drilled into the very dense glacial till that  
84 is very stable.

85  
86 **Jeff Clayton, Geologist, RH2 Engineering, applicant's certified**  
87 **geologist**

88 Mr. Clayton went through the geologic processes that would be observed  
89 on this site. He stated the glacial till that the pilings were buried into were  
90 very strong and almost had a concrete like strength. He went through his  
91 calculations for the soil mitigation for the proposed retaining wall. He  
92 calculated the amount of soil from the inclination of the slope and the  
93 amount of soil that the wall would be retaining. He said that the slope  
94 eroded or retreated about 1 foot over the last fifty years.

95  
96 Chairman Pressentin asked, since the calculations were based on limited  
97 borings and site reconnaissance, what he thought the soil conditions were  
98 to the north and south of the site.

99

100

Mr. Clayton said that there were going to be different conditions and although he couldn't say exactly what those were, he felt confident that they would be fairly similar to what was observed for the Coluccio property, as the stratigraphy of the area was fairly consistent.

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Boardmember West stated that there has been quite a bit of landsliding throughout the winter along the entire bluff.

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Mr. Peterson wanted it put in the record that the bulkhead was permitted and finalized by the city.

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111

Chairman Pressentin wanted to know if the bulkhead and retaining wall were connected to each other and if they were essentially a part of the same project/permit. He also wanted to know if the mitigation was only supposed to take into account the soil that would be lost as a result of the retaining wall and not the soil that would be interrupted by the bulkhead.

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Mr. Coluccio stated that the two projects were done under separate permits.

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Mr. Peterson stated that since the bulkhead was permitted and finalized and the two projects are separate, the mitigation was only for the soil that would be lost due to the retaining wall and not the bulkhead.

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Chairman Pressentin stated that the mitigation seemed minimal.

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Mr. Peterson said that it was commensurate with the variance applied for.

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Chairman Pressentin said that he was concerned with the water that could be directed other places as a result of this retaining wall and the development.

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Mr. Clayton stated that the drainage system that is proposed for this site should remove most of the water and should not impact the neighbors.

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**M/S/C/U Fanthorpe/West "I move to take a site visit" Motion passed 5-1. Boardmember Hohimer abstained.**

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#### **IV. NEW BUSINESS**

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#### **V06-03, John Rankin, 700 SW Normandy Rd. Appeal of an administrative variance for the definition of a ravine sidewall.**

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Chairman Pressentin indicated that Boardmember Ringdahl would not participate in this discussion as he was not present for the first meeting.

145

146

He also summarized the discussion which was does a ravine sidewall fall

147 under the exemption for a landslide hazard area as allowed in section  
148 13.16.030 (29).

149  
150 Associate Planner Davis stated that staff listened to the tapes from the  
151 Planning Commission and City Council meetings when this issue was  
152 discussed and adopted by City council. He said that the discussion did  
153 not indicate whether or not a ravine sidewall was a sub-category of a  
154 landslide hazard area but it seemed that the intent was to allow  
155 exemptions to smaller steep slopes such as ditches and natural slopes  
156 that under the old code were regulated sensitive areas.

157  
158 Planning Manager Adamson added that staff first looked at the ordinance  
159 for this section of the code and then looked at the minutes from these  
160 meetings and then listened to the tapes from this meeting. He said that  
161 the conclusion was that the exemption did not seem to apply to ravine  
162 sidewalls or bluffs.

163  
164 **John Rankin, 700 SW Normandy Rd.**

165 Mr. Rankin reiterated his point that the code was unclear as to what was  
166 exempt or not exempt. He addressed new information that was included  
167 in the staff report by staff as well as the attorney's letter that was provided  
168 to him at the end of the last meeting. Mr. Rankin explained that the ravine  
169 sidewall is a natural slope and since the definition indicates that small  
170 natural slopes less than 20 feet are exempt than the ravine sidewall in  
171 question is exempt. He also believed that the inclusion of the exemption  
172 was put in the landslide hazard areas definition section because that  
173 would cover all areas (ravine sidewall, bluffs, etc.).

174  
175 Mr. Rankin again stated that he was at all of the meetings that discussed  
176 this issue and that ravine sidewall, bluffs, etc that met the definition (under  
177 20') should have been included in the landslide hazard area exemption.

178  
179 Chairman Pressentin stated that in interpreting the code he did not  
180 believe the exemption was to exempt ravine sidewalls.

181  
182 Boardmember West contested whether or not it was a ravine or not since  
183 some of it is piped and there is only a stretch that is open and that maybe  
184 it should not be considered a ravine.

185  
186 Chairman Pressentin closed public comment.

187  
188 **M/S/C/U Baker/Hohimer – “I move to deny the appeal”. Motion**  
189 **passed 5-0. Boardmember Ringdahl could not vote.**

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191 **V07-02, JOHN AND TRACEY NELSON, 19640 4<sup>TH</sup> AVE SW.**  
192 Zoning variance to allow for the increase of the allowed GFAR from .25 to  
193 .29.

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195 Associate Planner Davis presented the staff report.

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**JOHN NELSON, 19640 4<sup>TH</sup> AVE SW.**

Mr. Nelson stated that the property is unique because it does slope and that building a house that is two stories is both impractical and expensive. He stated that he bought the house and found out later that there were some building code issues that are not up to current regulations and in order to correct those issues he is going to need to put quite a bit of money into the remodel. The most cost effective way is to expand the footprint (which would exceed the GFAR), so that he could get his family all on one level and have the amenities that most new houses have. He said that he would need a three car garage to get a good return on investment. He also said that he could not go up another level because it would cause an eyesore and that it would be too much house on the lot, not to mention he would need to upgrade the existing foundation and it would be extremely expensive. He said that it is really difficult to design a house on this piece of property to take all of the issues into account and make it work.

Chairman Pressentin stated that the code and the zoning have been in place for a while and that the Board needs to take into account the criteria for a variance. He stated that the lot in general is fairly standard in Normandy Park and does not seem to warrant a variance because most home owners have the responsibility to deal with the restraints of the code and the topography of their property.

Boardmember Hohimer asked why he could not reduce the size of the house.

Mr. Nelson said that the economics of it were not feasible.

Boardmember Hohimer asked how GFAR was measured.

Planning Manager Adamson stated that it was measured by taking the “floor area” of a building or buildings, which includes that portion of a lot occupied by the main building, and including breezeways and accessory buildings and dividing it by the size of the zoning lot.

Chairman Pressentin said that we have to find some unusual circumstances in order to grant a variance.

**Gary Norman, 230 SW 197<sup>th</sup> Place, Normandy Park, WA**

Mr. Norman said that he has never met or talked to the applicants before tonight’s meeting, so he was at the meeting on his own accord. He said that if any lot required a variance it would be this one. He said that because the house has a low profile and would have to go up another story it would impact the aesthetics of the neighborhood. He said that no one would see it if they were given a variance but if they went up more houses would.

245 There was discussion about how to calculate the GFAR on this particular  
246 lot since some of it is proposed to cantilever.

247  
248 It has been interpreted that the floor area is calculated by the floor area of  
249 the main building so would include those areas that are cantilevered.

250  
251 Boardmembers said that they would be overstepping their boundaries if  
252 they were to grant this variance because it did not meet the three criteria.

253  
254 **M/S/C/U Ringdahl/West – “I move to deny variance V07-02”. Motion**  
255 **passed 6-0.**

256  
257 **M/S/C/U Hohimer/Fanthorpe – “I move to adjourn”. Motion passed 6-**  
258 **0.**

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260 **Meeting was adjourned at 10:45.**

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264 Pat Pressentin, Chairman  
265 Normandy Park Board of Adjustment

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268 Noah Davis, Secretary  
269 Normandy Park Board of Adjustment

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271 DATED \_\_\_\_\_

**AMENDED STAFF REPORT TO THE  
NORMANDY PARK BOARD OF ADJUSTMENT**

DATE: April 26, 2007

CASE #: V07-01

APPLICANT: Joseph Coluccio

LOCATION: 19417 Edgecliff Drive SW

PARCEL: 6117501680

ZONING: Low Density Single Family Residential (R-20)

REQUEST: Approval of an environmentally sensitive areas variance to construct a new retaining wall 3' away from an existing retaining wall and 3' into the top of a bluff.

**BACKGROUND:**

Joseph Coluccio, hereafter referred to as applicant, seeks a variance from the Board of Adjustment to construct a new retaining wall 3' away from an existing retaining wall and 3' further into a Puget Sound bluff. Section 13.16.070 2(a) of the Normandy Park Municipal Code (NPMC) prohibits development within 50' of a bluff. The wall would run a considerable length of the western most portion of the property and provide additional reinforcement to the existing retaining wall and property.

The property currently contains a one story house, garage and a patio which ends at retaining wall at the top of the bluff. The bluff is approximately 190 feet and descends sharply to the Puget Sound. This is a unique piece of property in the house was platted and built before any sensitive areas regulations existed. A building permit was issued to tear down the house and construct a two-story house that essentially utilizes the same foot print but will also include an underground garage.

**STAFF ANALYSIS OF SENSITIVE AREAS VARIANCE REQUEST:**

The Board must apply the following criteria for granting an environmentally sensitive areas variance in their review of this application in determining whether or not to grant this request.

**13.16.040(g) Variances. (Sensitive Area: SA)** Variance requests shall be heard by the Board of Adjustment. Before any variance may be granted, it shall be shown that:

- 1) *Because of special circumstances applicable to subject property, including size, shape, topography, location, or surroundings, the strict application of this chapter is found to deprive property of rights and privileges enjoyed by other properties in the vicinity and under equivalent circumstances; provided, however, the fact that surrounding properties have been developed prior to adoption of the ordinance codified in this chapter shall not be the sole basis for granting the variance.*
- 2) *The granting of the variance will not be materially detrimental to the public welfare or materially injurious to the property or improvements in the vicinity and zone in which the property is situated, or contrary to the goals and purposes of this chapter.*
- 3) *In the case of environmentally sensitive areas as defined in this chapter, the variance granted shall be the minimum necessary to accommodate the permitted uses.*

*Regarding criterion #SA-1, that because special circumstances applicable to subject property, including topography and location, the strict application of this chapter is found to deprive subject property of rights and privileges enjoyed by other properties in the vicinity and under equivalent circumstances:*

The applicant is proposing to build a retaining wall 3 feet away from an existing retaining wall to provide additional support to the wall and the top of the bluff which will help to stabilize the property. The house, patio and retaining wall are completely in the buffer of a sensitive area and at certain points in the sensitive area. The home was built in the 1950's before any sensitive areas regulations were in place and could not be built using the standards of the current municipal code without a variance. It may be possible to construct the wall closer to the house instead of further in the sensitive area to accomplish the same goals but it may be more destructive to the bluff. The applicant is contending that placing the wall further into the bluff minimizes the chance of negative impacts to the existing bluff. He claims that removing the existing wall and constructing one inside the current wall would be more harmful to the bluff in that excavating and exposing the retained soil at the top of the slope and then removing the existing wall has the potential to landslide and cause significant erosion.

*Regarding criterion #SA-2, granting the variance will not be materially detrimental to the public welfare or materially injurious to the property or contrary to the goals and purposes of this chapter.*

The geotechnical report submitted by the applicant, and prepared by RH2 Engineers and HWA Geosciences, Inc on February 7, 2006 and the retaining wall design by CivilTech prepared on October 4, 2005, summarizes the findings of their reviews of the proposed project. Comments by AMEC in a February 7, 2007 letter regarding the

soldier pile wall design were addressed in letters provided by CivilTech Engineering on February 19, 2007 and RH2 on March 26, 2007. On April 19, 2007 AMEC issued a letter stating that their concerns were satisfied. The applicant's Geotechnical Engineer reviewed the proposed project and indicated that it would help to stabilize and fortify the bank. The City is still unsure if the Geotechnical Engineer evaluated the possibility of locating the wall closer to the house. By locating the wall closer to the house it would eliminate the need to encroach into the bluff. If the engineers determined that it would provide the same level of safety for the applicant it would not require the need for a variance. But those benefits need to be weighed with the impact that constructing the wall in this manor would have on the bluff, in essence would it result in a greater negative impact to the bluff. It is agreed by both Geotechnical Engineers that a new wall is needed to protect the applicant's property.

*Regarding criterion #SA-3, the variance granted shall be the minimum necessary to accommodate the permitted uses.*

The City has discussed the option of moving the wall closer to the house as opposed to further away and although the City's Geotechnical Engineer agrees that the construction of the wall as proposed may be less damaging to the sensitive area during construction, these disturbances may be able to be handled effectively with Best Management Practices and revegetation once work is complete. The idea that it could be constructed without having a greater impact to the bluff is questioned by the applicant's engineers. They argue that not allowing them to construct it 3 feet westward from the existing retaining wall would be more damaging to the bluff than allowing them to incur a small encroachment into the bluff.

### **STAFF SUMMARY AND RECOMMENDATION:**

The applicant's engineers believe that this wall can be constructed safely and with minimal impact to the sensitive area, and while the City has reviewed the project for proper design and safety potential from a geological standpoint, it still is unclear whether or not the same factor of safety and the requirement to meet all of the criteria for sensitive areas variances could be achieved if the wall was placed closer to the house and thus eliminating the need for a variance. If the Board chooses to grant the variance because the potential impacts of a retaining wall placed in any other location would be more damaging to the bluff, it is recommended that mitigation for the encroachment into the sensitive area be located at the beach, where according to our experts, Coastal Geologic Services, Inc., it will have the most benefit.

The bluff and beach are all part of the near shore environment that work together to perform certain ecological functions. Encroaching further into the bluff would impact the near shore environment and would require a variance that could be mitigated by the proposed conditions. The proposal along with these conditions would satisfy the criteria for a sensitive areas variance if it was proven that the proposed design is less destructive than locating the wall behind the existing wall.

If the Board chooses to grant this request, staff recommends that it be subject to the following conditions:

### **RECOMMENDATION:**

Based on the information provided by the Applicant and reviewed by the City's consultant, Coastal Geologic Services, Inc., Staff recommends that the variance be approved with the following conditions:

The conditions of approval are:

1. Applicant to mitigate the loss of sand from the beach by construction of the soldier pile wall and the bulkhead. Consultant recommends every decade the beach be replenished with 600 cubic yards of "buckshot" or "birdseye" size sand. This should continue for at least 5 decades. This condition will be recorded on the title of the property. Applicant shall notify City of
2. City will enter into an agreement with a national land trust active in the Puget Sound area to accept financial guarantee in lieu of placing the sand and/or monitoring its placement on the beach. Trust shall report to the City when new sand is needed and has been completed.
3. Applicant to re-plant trees disturbed or removed from the bluff with native deciduous trees of 1.5 inches caliper (minimum) or evergreen trees of 3.0 inches caliper (minimum) for the length of the slope. Trees should replace those disturbed or destroyed by applicant at a ratio of 3 new trees for each tree disturbed or destroyed.

### **BOARD OPTIONS**

#### **Sensitive Areas Variance**

1. "I move to approve Sensitive Areas Variance V07-01 with the conditions proposed in the Staff Report."
2. "I move to approve Sensitive Areas Variance V07-01 with the following conditions:
  1. (Specify)
  2. (Specify)
  3. Etc."
3. "I move to approve Sensitive Areas Variance V07-01 without any conditions.
4. I move to continue the hearing of V07-01 to the next regularly scheduled meeting to allow time for the applicant to provide the following supplemental information and/or submittals or to conduct a site visit:
  1. (specify)

2. (specify)
3. Etc.”

4. “I move to deny Sensitive Areas Variance V07-01.”

February 19, 2007

Mr. Joseph Coluccio  
9600 ML King Way South  
Seattle, WA, 98118

**Re: Response to Geotechnical Review of Documents  
Coluccio Property – Proposed Retaining Wall  
19417 Edgecliff Drive SW  
Normandy Park, Washington**

Dear Mr. Coluccio:

At your request, CivilTech offers the following response to comments presented in a letter entitled “*Geotechnical Review of Documents – WORKING DRAFT*” presented to City of Normandy Park by AMEC Earth & Environmental, dated February 7, 2007. Our responses address portions of the comments relevant to the retaining wall design prepared by CivilTech Engineering. Individual comments are presented below, followed by our response.

- 2) The slope stability analyses presented in the HWA report do not appear to show failures in front of the planned soldier pile retaining wall. We recommend slope stability in front of the wall be assessed and a comment made on the impact to passive resistance of the soldier pile wall.

Response: The shoring design accounts for the possibility of skin slides. The design assumes that no passive resistance is present from the top 5 feet of soil in front of the wall. So the described skin slides (on the order of 3 to 5 feet deep) would not impact the passive resistance or wall stability. Deeper instability could impact the passive resistance, but as noted in the HWA report, there is a low risk of deep-seated instability. So, we would characterize the risk of impacts to the passive resistance as low risk.

- 3) HWA state that the top of the new soldier pile wall will be tied back with permanent anchors to the new basement wall. The design for such a configuration needs to consider the overlapping active soil zone from the soldier pile wall and the passive resistance zone from the basement wall. Has the geometric relationship between these two zones been assessed? This is particularly important where the basement wall and soldier pile wall are in close proximity to each other in the northwest corner of the house/wall.

Response: The geometric relationship was assessed for the worst-case conditions described where the new soldier pile wall is approximately 18 feet from the basement wall. Based on the shoring program output, the minimum tie rod length is 14.9 feet,

indicating the spacing is adequate. We have subsequently done a check using the method described in NAVFAC DM7.2, indicating a passive capacity of 80k for these conditions (see attachment). This compares to an anchor load of 35k. Conservative assumptions were used in the analysis, including assuming that only a small area of the foundation wall acts as an anchor and ignoring the weight of the foundation.

- 4) There should be some discussion regarding plans to replace lagging when soil loss undermines the front of the wall.

Response: The previously submitted design includes a concrete apron between the new soldier pile wall and the existing wall to minimize soil loss above the apron. However, in the event of soil loss in front of the wall, CivilTech recommends that additional lagging be installed to extend the lagging lower, to the new ground line to avoid soil loss from behind the wall. Further measures may also be necessary, and should be evaluated at that time, based on the observed conditions.

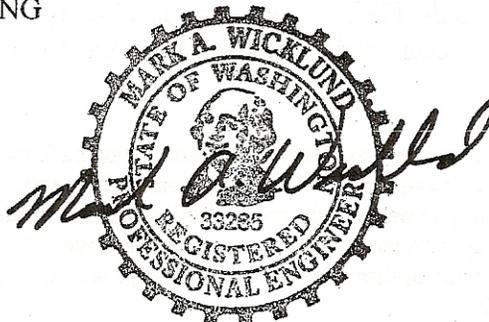
- 1) From review of the wall calculations, it appears that a reduced passive resistance has been used in front of the soldier pile wall. It is unclear if this is to account only for the sloping ground in front of the wall or if it also includes potential loss of ground from future surficial slope failures.

Response: The passive pressure in front of the wall was reduced to partly account for both the sloping ground conditions and potential loss of ground from future surficial slope failures. In addition, the design assumes that no passive resistance is present from the top 5 feet of soil in front of the wall to account for potential loss of ground and sloping ground.

We appreciate the opportunity to be of service on this project. If you have any questions or need additional information, please contact our office.

Respectfully submitted,

CIVILTECH ENGINEERING



Mark A. Wicklund, P.E.  
Geotechnical Engineer

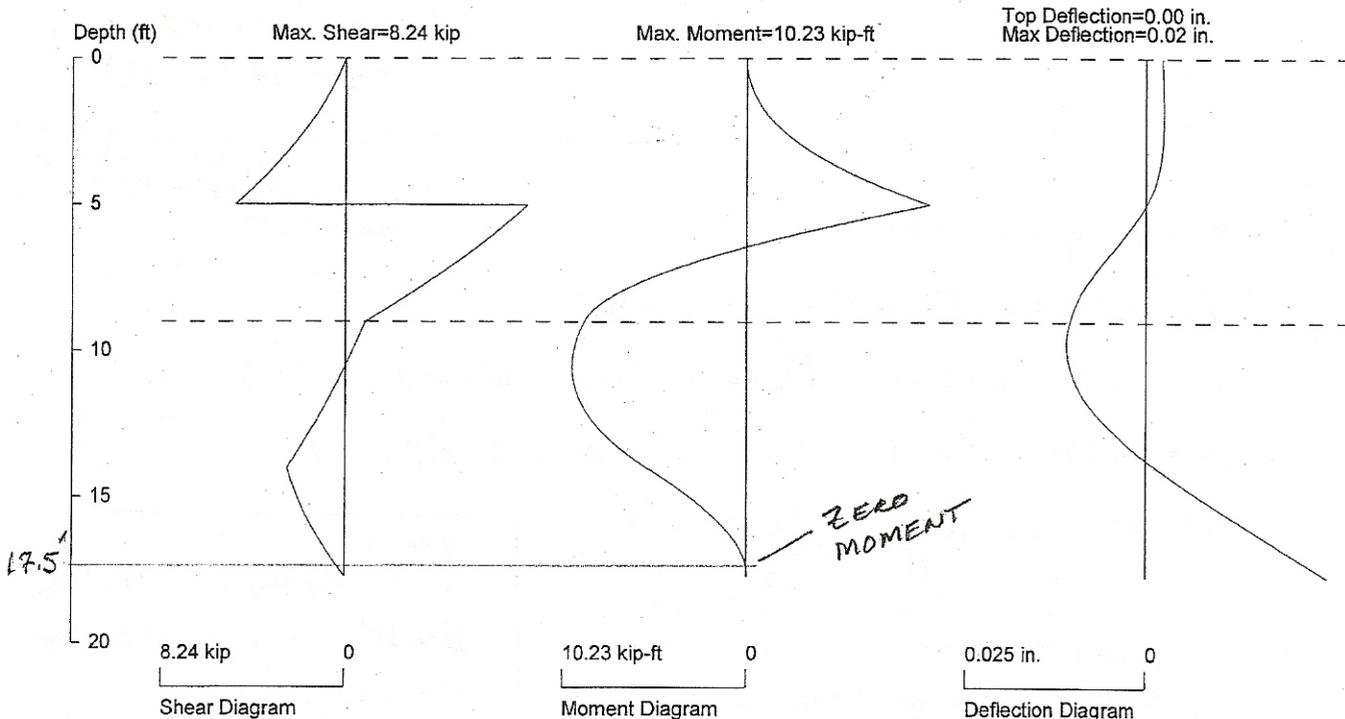
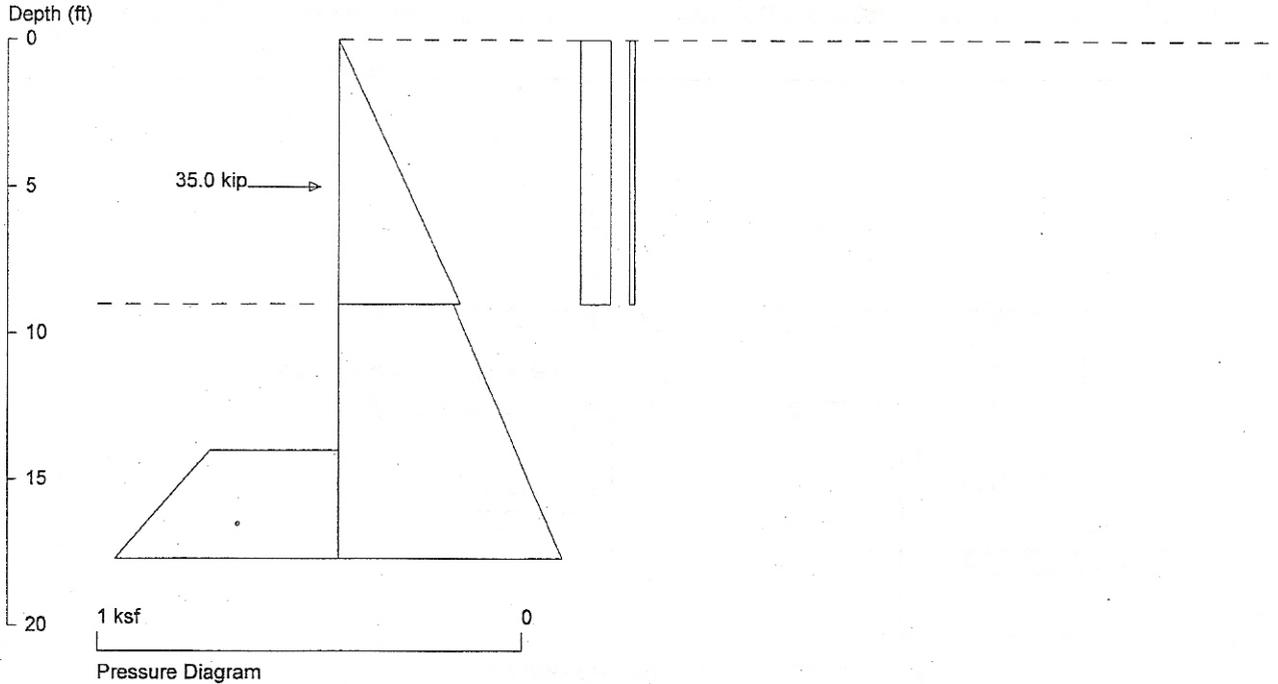
EXPIRES 12/31/08

Enclosures: Calculations, Moment Diagram, DM7.2 Page 91



# Coluccio Residence

## 9' Soldier Pile @ 6' OC w/ Deadman



## PRESSURE, SHEAR, MOMENT, AND DEFLECTION DIAGRAMS

Based on one soldier pile or one foot spacing of sheet pile

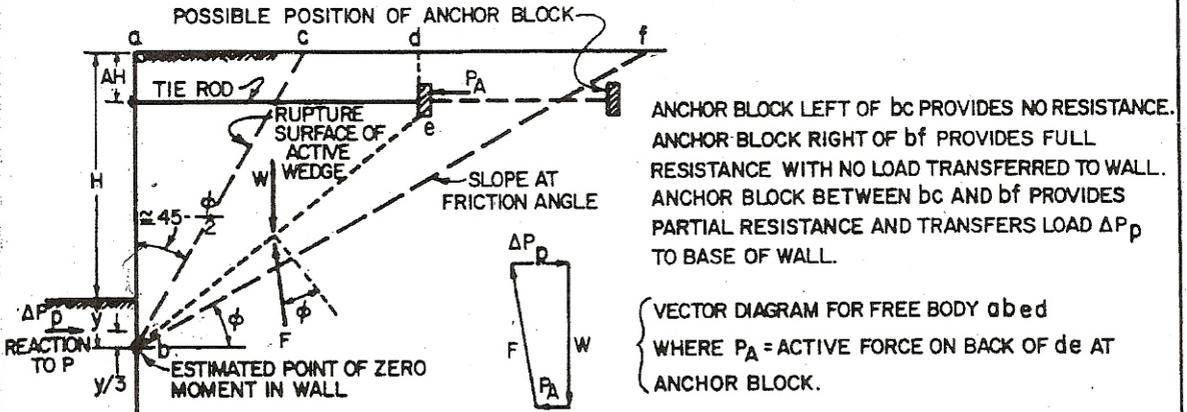
Pile Properties:  $E$  (ksi) = 29000,  $I$  (in<sup>4</sup>) = 393

Date: 2/19/2007 File Name: Y:\Eng\Shoring\2005\25007 - Coluccio Residence\Engineer\9' revised\_wall.sho

Licensed to Mark Wicklund CivilTech Engineering

<ct-Shoring> CIVILTECH SOFTWARE USA [www.civiltech.com](http://www.civiltech.com)

EFFECT OF ANCHOR LOCATION  
RELATIVE TO THE WALL



CONTINUOUS ANCHOR WALL LOCATED  
BETWEEN RUPTURE SURFACE AND  
SLOPE AT FRICTION ANGLE

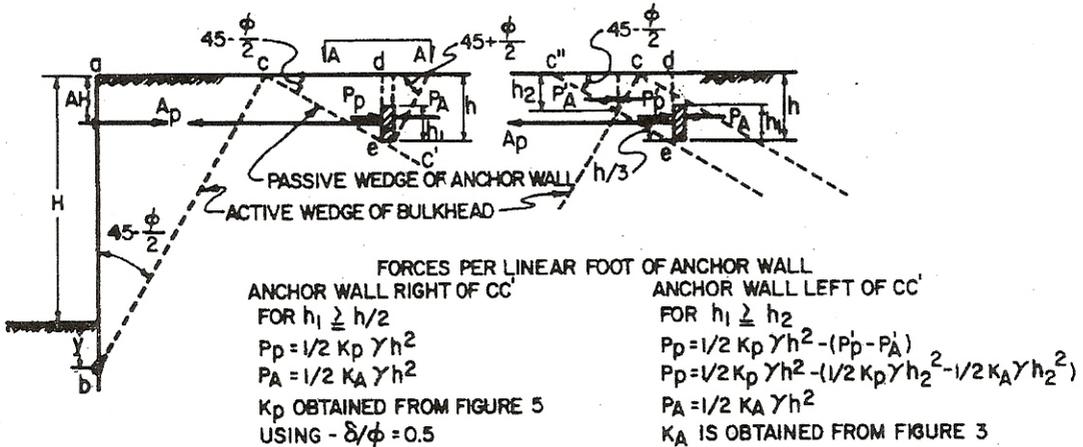


FIGURE 20  
Design Criteria for Deadman Anchorage

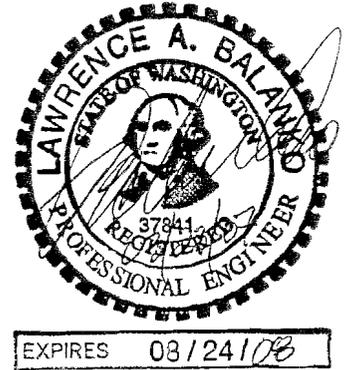


TECHNICAL MEMORANDUM

TO: Gene Peterson, RH2 Engineering, Inc.

PREPARED BY: Lorne Balanko, P.E./HWA GeoSciences Inc.

SUBJECT: **STABILITY EVALUATION**  
**Proposed Coluccio Residence**  
**19417 Edgecliff Drive SW**  
**Normandy Park, Washington**



PROJECT NO.: 2006-001-21

DATE: March 13, 2007

As requested in recent telephone discussions and email communications, we are providing this memorandum in response to Item 5) of the AMEC Earth & Environmental, Inc. (AMEC) letter dated February 7, 2007, providing their geotechnical commentary on various documents supporting the subject project.

In Item 5), AMEC make reference to the "1997 Woodway Slide" as an example of a large scale failure that they contend occurred "...in similar soil conditions in recent years, apparently due to high groundwater pressures and "blow-out" or extensive seepage and internal soil erosion." AMEC continued on to "...recommend that HWA discuss failure conditions relative to this failure mode, including observed groundwater, calculated factor of safety, and consequences of failure on the planned residence and new retaining wall."

In response to AMEC's comment, we note that whereas the site stratigraphic conditions are somewhat similar to those of the Woodway Slide site, we contend that there are sufficient differences that distinguish these sites and contribute to more favorable conditions at the subject site. Firstly, the subject site appears to be underlain by a thicker surficial deposit of glacial till, interpreted by RH2 Engineering, Inc. (RH2) to be of the order of 50 feet thick; based, presumably, on the observations in the Civiltech Engineering (Civiltech) boring B-1-05 and their slope reconnaissance. The Civiltech boring was advanced on the site to a depth of 51.5 feet. According to RH2, the base of the glacial till and contact with advance outwash exists at about elevation 150 feet. The base of the advance outwash is indicated by RH2 to be about 80 feet deeper, or about elevation 70 feet, at which level a Lawton Clay unit was observed and apparently extends to and below the toe of the slope at about elevation 10 feet.

We understand that the surficial till on the Woodway Slide site ranges in thickness from zero to 24 feet, is in places overlain by recessional outwash material, and is underlain directly by advance outwash over Lawton Clay (Gilbert and

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LaPrade, 1998)<sup>1</sup>. This sequence is similar on both sites, but the reduced thickness (in some instances absence) of till suggests to us that there is a much greater opportunity for water infiltration at the Woodway site. This infiltration would contribute to higher ground water levels and piezometric pressures in the soils beneath that site, than appears to exist at the subject site. The Gilbert and LaPrade paper (Gilbert and LaPrade, 1998) shows that the advance outwash layer contained a significant layer of silt interbedded in the outwash and that piezometers, which were subsequently installed, suggest perching of ground water on this interbed. The Civiltech boring was not completed with a piezometer, but there is no suggestion of any ground water presence within its depth of advancement. Moreover, we are not aware of any seepage on the slope below the subject site other than at the top of the Lawton Clay, as reported by RH2.

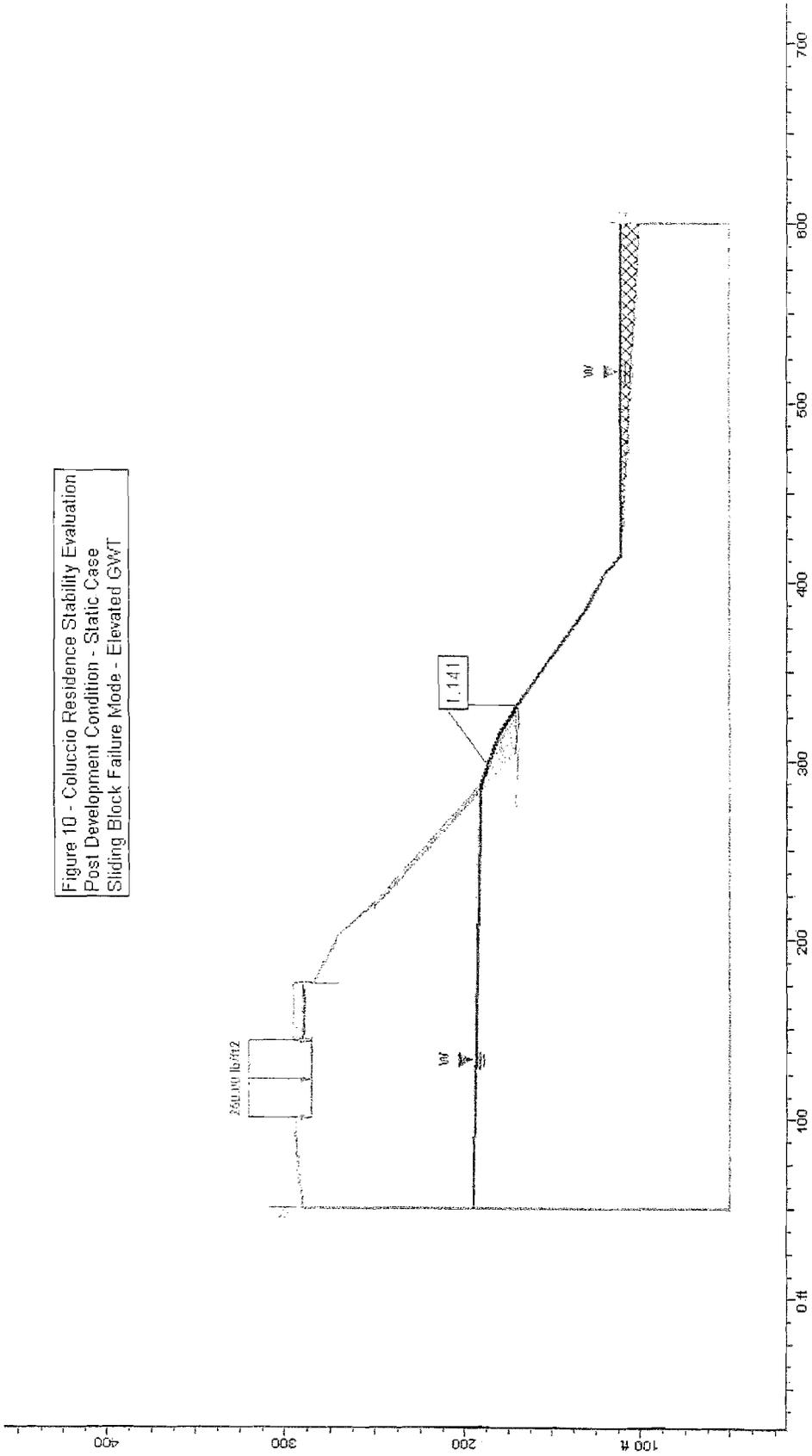
Our second point is that we based our slope stability modeling on ground water observations and hydrogeological reports for the area that indicate an upper ground water table near the base of the advance outwash. Employing this information, we ascertained that the piezometric surface is likely to be close to that shown in our stability analyses, included as Figures 1 through 9, with our report on the site dated February 2, 2006. Existing site conditions and observations do not support a water table much higher than we have employed for our analyses. Notwithstanding, we have analytically examined the potential influence of a rapidly increasing piezometric level within the advance outwash unit, as depicted in Figure 10, attached herewith and intended to supplement the figures in our earlier report. We have assumed that the accumulation of colluvium near the base of the advance outwash, at about mid-slope level, could conceivably act as a short-term dam to allow the ground water level to rise to the top of the colluvial accumulation. Our analysis of this condition shows that the most critical failure mechanism, based on a sliding block failure mode, is limited to the colluvial wedge itself. Even then, the factor of safety (FS=1.14) for this condition is greater than one. If a failure were to occur by way of a blow-out of built-up piezometric pressure, we would anticipate that it would be confined to the lowermost section of the advanced outwash unit, which might induce progressive failure back up the slope, but we believe that such regressive failure would be shallow in nature and not progress below the base of the piles supporting the wall.

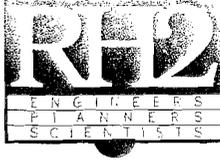
Lastly, we note that, whereas similarities exist between the subject site and the Woodway site, the adverse circumstances of conditions that occurred at Woodway did not, in fact, occur at this site and a massive slope failure did not replicate itself here or elsewhere in this general area to our knowledge. Why should there be any greater risk of this happening in the near future? Gilbert and LaPrade note (Gilbert and LaPrade, 1998) that "While we do not know the recurrence interval of such a large event, it is certainly on the order of many decades or centuries."

---

<sup>1</sup> *Woodway Landslide – A Reminder and an Opportunity*, by Wade Gilbert and Bill LaPrade, presented at the Landslides in the Puget Sound Region Seminar, April 4, 1998; sponsored by the ASCE Seattle Section, Geotechnical Group; University of Washington, Department of Civil Engineering; the U.S. Geological Survey; and the American Society of Civil Engineers.

Figure 10 - Coluccio Residence Stability Evaluation  
Post Development Condition - Static Case  
Sliding Block Failure Mode - Elevated GW





COPY

RH2 ENGINEERING, INC

<http://www.rh2.com>

[mailbox@rh2.com](mailto:mailbox@rh2.com)

1.800.720.8052

March 26, 2007

Mr. Stephen Siebert, P.E.  
AMEC Earth & Environmental, Inc  
11335 NE 122<sup>nd</sup> Way, Suite 100  
Kirkland, WA 98034

WESTERN WASHINGTON

12100 NE 195<sup>th</sup> St., Suite 100

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621 Pacific Avenue, Suite 104

Tacoma, WA 98402

(tel) 253.272.3059

*Sent Via: US Mail*

**Subject: Response to February 7, 2007 AMEC Geotechnical Review of Documents – Coluccio Property**

Dear Mr. Siebert:

Please find attached responses to your February 7, 2007 review of the plans and submittals prepared for the replacement retaining wall at the Coluccio residence in Normandy Park. The first attachment is a February 19, 2007 letter report by Mark Wicklund, P.E. of CivilTech Engineering. The second attachment is a March 13, 2007 memo by Lorne Balanko, P.E. of HWA GeoSciences Inc.

We believe these two documents thoroughly respond to your comments. However, if there are any additional questions, please call me and I will coordinate any necessary additional response.

As you know, the proposal is to replace the existing failing retaining wall behind the Coluccio home. The retaining wall was constructed more than 50 years ago. It is clearly failing and does not conform to any current construction codes. We are proposing to replace the existing wall with a new wall parallel to and 3 feet west of the existing wall. As you noted in your February 7<sup>th</sup> comments, this distance is the minimum needed to construct a new soldier pile wall.

Replacing the existing failing wall in this manner will achieve two desirable objectives. First, it will dramatically improve safety and security at the site by constructing a wall that meets all modern construction codes. Second, it will minimize the risk of erosion and slope failure because the existing wall will remain in place during construction and hold the extremely loose material behind the wall in place.

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Mr. Stephen Siebert, P.E.

March 26, 2007

Page 2

Please feel free to contact me if you have any questions or need additional information to complete your review.

Sincerely,

**RH2 ENGINEERING, INC.**

A handwritten signature in black ink, appearing to read 'Gene Peterson', written in a cursive style.

Gene Peterson  
Senior Planner

GP/sp

Attachments: February 19, 2007 CivilTech Engineering Letter  
March 13, 2007 HWA GeoSciences Inc. Letter

cc: Mr. Noah Davis, City of Normandy Park  
Mr. Joe Coluccio  
Mr. Lorne Balanko, P.E., HWA GeoSciences Inc.  
Mr. Mark Wicklund, P.E. CivilTech Engineering  
Mr. Geoff Clayton, RH2 Engineering



April 19, 2007  
6-917-15679-0

City of Normandy Park  
801 S.W. 174th Street  
Normandy Park, Washington 98166

Attention: Mr. Noah Davis

**Subject: Geotechnical Review of Supplemental Documents**  
Coluccio Property – Proposed Retaining Wall  
19417 Edgecliff Drive S.W.  
Normandy Park, Washington

Dear Mr. Davis:

At your request, AMEC Earth & Environmental, Inc. (AMEC) recently reviewed the supplemental documents prepared by others for the proposed retaining wall. We previously performed a review of documents associated with the proposed retaining wall, as specified in the Normandy Park Municipal Code (NPMC), Chapter 13.16.090 4(e) and submitted a review letter with comments dated February 7, 2007. We recently reviewed the following supplemental documents:

- Technical Memorandum – Stability Evaluation (dated March 13, 2007) prepared by HWA GeoSciences, Inc.; and
- Response to Geotechnical Review of Documents (dated February 19, 2007) prepared by CivilTech Engineering.

## CONCLUSIONS

In our opinion, the technical memorandum from HWA and supplemental letter from CivilTech adequately address our prior review comments (February 7, 2007) regarding the proposed retaining wall. A summary of the items addressed and response comments are summarized subsequently.

AMEC Earth & Environmental, Inc.  
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Fax (425) 821-3914  
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W:\Projects\15000st15679 City of Normandy Park\15679 Coluccio Supp Review lett 041907.doc

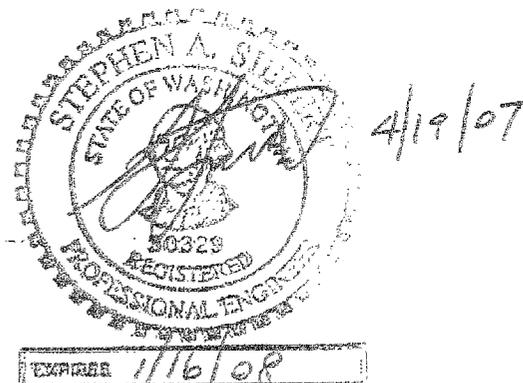
- 1) CivilTech states in their February 19, 2007, letter that their retaining wall design accounts for the possibility of skin slides by neglecting passive resistance in the upper 5 feet in front of the wall. We consider this approach acceptable.
- 2) CivilTech analyzed the affect of the overlapping active soil zone from the soldier pile wall and the passive resistance zone from the basement wall. In our opinion, their analyses appear appropriate.
- 3) In accordance with our February 7, 2007, review letter, CivilTech recommends installation of additional lagging when soil loss undermines the front of the wall.
- 4) In their recent technical memorandum, HWA presents additional information regarding the similarities and differences between the Woodway Slide and conditions present at the Coluccio property. In our opinion, HWA has recognized the potential slope failure modes, including the effects of groundwater and consequences of failure on the planned residence and new retaining wall.

#### CLOSURE

It should be realized that our scope of work for this letter was limited to a review of the geotechnical conclusions and recommendations contained in the documents supplied to us. We hope that this letter meets your current needs. If you should have any questions, please do not hesitate to contact us at your convenience.

Sincerely,

AMEC Earth & Environmental, Inc.



EXPIRES 1/16/08  
Stephen A. Siebert, P.E.  
Senior Engineer

Reviewed by: Deb Ladd, P.E., L.H.G.

Distribution: Mr. Noah Davis, City of Normandy Park (2)

April 19, 2007

To: John Adamson  
Planning and Community Development Manager  
801 SW 174<sup>th</sup> St  
Normandy Park, WA 98166-3661

For: **Coluccio Property Erosion Rate Estimate**  
19417 Edgecliff Drive SW  
Normandy Park, King County, WA  
King Co. parcel #6117501680

### Background and Purpose

Jim Johannessen, Licensed Engineering Geologist and Principal at Coastal Geologic Services, Inc. (CGS) was requested to characterize the erosion/recession rate and processes and recommend mitigation for construction of a new rock bulkhead at the site. This was accomplished by performing a site assessment, reviewing aerial and ground photos, published maps and reports, and other in-house resources to provide an estimate of the erosion rate for the above-referenced bluff property. Mr. Johannessen and Jonathan Waggoner of Coastal Geologic Services carried out the site assessment. The property is located in a high bluff area on the shore of Normandy Park, WA. The site is southwest of the intersection of SW Channon Road with Edgecliff Drive SW. The property contains a single-family house located very close to the bluff crest at the uplands.

### Site Conditions

**Bluff Geology** - The geology of the bluff face at the subject property was investigated on March 20 2007. The entire height of the bluff face was traveled on foot, including hand excavations into native soils. The upper approximately 25 ft (vertical) of the bluff face contained pebbly, sandy, silt, which was interpreted as Vashon till. This elevation was approximate as the exact contact between till and underlying material was not located. Below approximately 25 ft and extending to approximately 55 ft, medium and fine sand was present. Stratigraphically below the sand, progressively more gravel was found with very pebbly sand underlain by sandy gravel. Sand in these units was coarse to very coarse. This extended down to approximately 152 ft (vertical) below the bluff crest. A portion of this central bluff face was covered by colluvium (landslide debris), however this area appears to have contained the same geologic unit. The lowermost bluff face had exposed till starting at approximately elevation 25 ft above the bluff toe. This interpretation was consistent with mapping by Booth and Waldron (2004).

**Bluff Conditions** - The overall slope of the bluff face from crest to toe was measured at 38 degrees (78%). The upper half of the bluff face was sloped at 45 degrees (100%). The lower half of the bluff had several low-slope areas with the lower bench being located above the lower till unit. Minor seepage was observed in the upper bluff and mid bluff face with moderate to high seepage above the lower till unit above the beach.

Ground photos were reviewed from March 2007 (CGS), and oblique aerial photos were reviewed from 2000 (figure 1, WADOE), 1993 (Figure 2; WADOE), and 1977 (Figure 3; WADOE). The 2000 images show a well-vegetated bluff face, with extensive overhanging vegetation at the upper beach. Landslide scarps were not visible in the 2000 images. The 1977 image, although not at all detailed, appeared to show the bluff well vegetated. Several trees can be seen either steeply overhanging or fallen to the beach in 1977, but the photo does not show recent slide scarps.

Bluff vegetation was examined during the brief site visit. The upper two-thirds of the bluff was dominated by small, young vegetation such as red alder, bigleaf maple, Himalayan blackberry, sword fern, bracken fern, honeysuckle, oceanspray, and English ivy. The alder and maple in this area had been cut back a number of times, presumably for view maintenance. The vegetation assemblage is indicative of slope instability, which has likely been exacerbated by the topping of trees. Two large evergreen stumps were observed high on the bluff. A very large (over 3 ft across) bigleaf maple stump was found in the mid-bluff. Lower on the bluff was seen a variety of large ornamental plants, presumably escaped from nearby yards, as well as several older Douglas fir trees, and one large madrone. The age of this assemblage indicates that the lower bluff has remained relatively stable. Historic conditions during the Summer of 2000, 1994, 1977, and 1936 are shown in Figures 1-4.

**Rockery and Beach** - A near vertical, carefully placed rock bulkhead, locally referred to as a "rockery", was present at the bluff toe (see Photo Page). The entire width of the property appeared to be fronted by the rockery. The wall generally extended 8 ft above upper beach level, and was composed of 3-6 ft angular rock. The rock was quarry stone, and appeared to be granodiorite. Smaller rock (Quarry spall) continued up several ft higher than the lower tier of the rockery. The middle portion of the bank, where extensive seepage was present, also contained a second, higher tier composed of a 5 ft high (exposed height) rockery wall. A large drift log, likely removed from the beach, was placed atop the higher rock tier.

The beach was composed of sand with on the order of 10-20% pebble and cobble, including sediment immediately below the beach surface layer. The beach was of relatively low slope. Very little large woody debris (LWD) was present at the subject property, however a large pile of LWD was present on the beach immediately to the north of the property beach during the time of the site visit on March 20, 2007 (Photo Page). This material appears to have been moved aside during the recent construction of the rockery wall and not redistributed afterward.

The long-term littoral drift (net shore-drift) is to the north at the site (Schwartz et al. 1991). The drift cell extends to the tip of Three Tree Point, and sediment delivered from bluffs along the drift cell is critical in maintaining the beach and nearshore habitats along this drift cell.

### Summary and Conclusions

The site visit and historic images revealed that the bluff slope, evidence of past landslides, and composition of the vegetation community indicate a history of intermittent but infrequent landslides at the subject property (Figures 1-4 and Photo Page). Although recent landslides were not evident on the upper bluff, the lower bluff face appears to have experienced recent slides. A small to moderate amount of colluvium was present on the middle bluff face also indicating past slides, but several moderately large trees/stumps indicates that the slide frequency has been low on some areas of the bluff face. The above-mentioned factors and review of historic, oblique aerial photos allows an approximation of the bluff recession rate to be determined. Based on this, and with extensive experience with recession rate calculations at other Puget Sound bluff sites, the recession rate at the subject property was estimated at 1.5 inches per year (in/yr).

Another way to examine the validity of the estimate would be to equate the 1.5 in/yr rate to a landslide recurrence interval of approximately 40 years for any portion of the bluff. If recession was on the order of 5 ft horizontal at this recurrence interval, this equates to approximately 1.5 in/yr.

Examination of the "seawall cross section" (Figure 4 by RH2) showed a total height of rockery of 8 ft, which included 2 ft of embedment below beach level. This would equate to a 6 ft high exposed rockery compared to the 8 ft high exposed rockery in the field, with additional height of quarry spall.

Plans did not show a second tier of rockery landward of the primary wall. The design also showed an "approximate 9 ft of beach restoration" on the cross section. It is unclear what this restoration was to consist of as it appears that some portion of the upper beach was buried by the rock during construction of the rockery. Apparently a mix of pea gravel and coarse sand was to be spread along the length of the bulkhead. No pea gravel was evident during the March 20 field visit, although the material could have been removed by waves. Based on review of ground photos from before the rockery construction it also appears that some amount of overhanging native vegetation (marine riparian) was removed for construction of the wall, although the photographic history is incomplete.

Based on the estimated bluff recession rate of 1.5 in/yr and the fact that almost the entire height of the bluff provides high-quality beach sediment (sand and gravel), a logical option for mitigation would be to nourish the beach (import sediment) to replace sediment that had been coming from the now bulkheaded bluff through mass wasting and erosion. Using the approximate erosion rate of 1.5 in/yr, a bluff height of 160 ft (based on measured 260 ft long slope angle at 38 degrees), a bluff width of 100 ft (based on parcel size), and the approximation of 80% of the bluff height contains beach-forming sediment, the following calculations provide an estimate of sediment yield per year.

$$160 \text{ ft} \times 100 \text{ ft} \times 1.5 \text{ in/yr} \times 0.8 = 59.5 \text{ cy/yr, rounded to } 60 \text{ cy/yr}$$

Beach nourishment would be a reasonable approach for mitigation. Due to the cost and impracticality of delivering sediment on an annual basis, it is recommended to perform beach nourishment at the beginning of each 10-year period following the rockery construction. This would supply enough sediment for the coming decade during each application. Therefore 10 times the annual erosion rate (600cy) would be delivered each decade. The best sediment size to use is "buckshot", also called "birdseye", which is the next product smaller in size from "pea gravel". Round material should be used; not crushed.

Additional mitigation should consist of replanting the damage portions of the lowermost bluff face to recreate a marine riparian zone. This would include the entire width of the property above the lower rockery tier – through the upper half of the large quarry spill area, and above the higher rockery tier. Suggested species to be planted at moderate density in this moist area include cedar, red alder, and native willow species. A vegetation specialist should be consulted for species selection and placement to maximize effectiveness.

#### **Limitations of This Report**

This report was prepared for the specific conditions present at the subject property to meet the needs of specific individuals. No one other than the client should apply this report for any purposes other than that originally contemplated without first conferring with the geologist who prepared this report. The findings and recommendations presented in this report were reached based on a brief site visit, photographs, and professional experience, as noted. The report does not reflect detailed examination of sub-surface conditions present at the site, or drainage system designs. It is based on examination of surface features, bluff exposures, soils characteristics, beach features, and geologic processes. In addition, conditions may change at the site due to human influences, floods, earthquakes, groundwater regime changes, or other factors. Great care must be exercised when working on unstable slopes or close to foundations.

Thank you for engaging the professional services of Coastal Geologic Services, Inc. If we can be of any additional assistance please contact our office.

#### References

- Booth, D.B. and Waldron, H.H.. 2004, Geologic map of the Des Moines 7.5' quadrangle, King County, Washington: U.S. Geological Survey. Scientific Investigations Map SIM-2855, scale 1:24000.
- Schwartz, Maurice L., et al., 1991. Net shore-drift in Washington State, Volume 5, Northern Bays and Straits. by, Edmund Jacobsen, 1980, Shorelands Program, Washington Department of Ecology, Olympia

Coastal Geologic Services, Inc.

Jim Johannessen,  
Licensed Engineering Geologist, MS

ATTACHED: Figures 1, 2, 3, and 4, and Photo Page



Figure 1. Oblique aerial photograph from 2000 (excerpt of 000925-133234). Photo courtesy of Washington Department of Ecology. Arrow points at the house at the property.



Figure 2. Oblique aerial photograph from 1994 (excerpt of KIN0178). Photo courtesy of Washington Department of Ecology. Arrow points at the house at the property.



Figure 3. Oblique aerial photograph from 1977 (excerpt of KIN0677-101). Photo courtesy of Washington Department of Ecology. Arrow points at the house at the property.

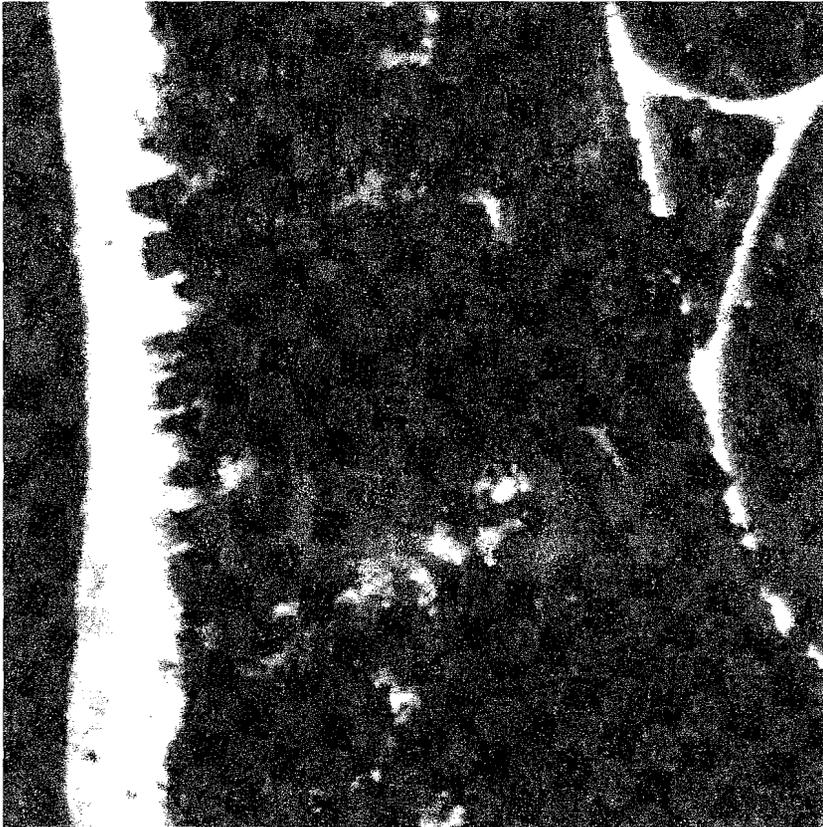


Figure 4. Vertical aerial photo from 1936, showing landslide activity.

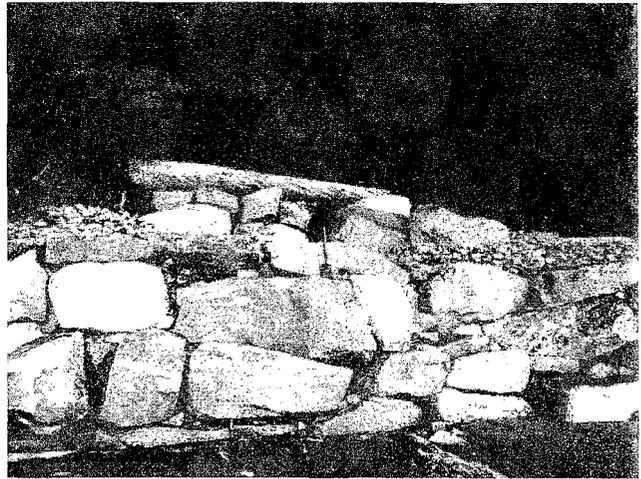
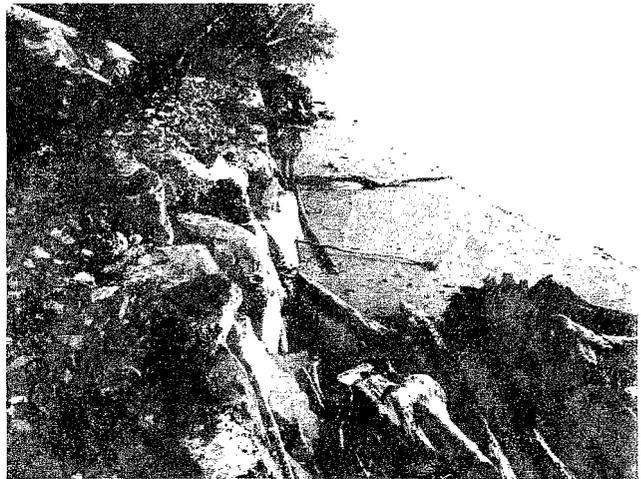


Photo Page. Photos taken 3/20/2007 by CGS showing beach, lower bluff, and rockery.

**AMENDED STAFF REPORT TO THE**  
**NORMANDY PARK BOARD OF ADJUSTMENT**

DATE: February 22, 2007

CASE #: V06-03

APPLICANT: John Rankin

LOCATION: 800 SW Normandy Road

PARCEL: 2105200030

ZONING: High Density Single Family Residential (R7.2)

REQUEST: Appealing an administrative decision that the ravine sidewall adjacent to the applicant's home is not exempt from the sensitive areas ordinance. The applicant believes that the ravine sidewall adjacent to his house should be exempt from the requirements of a ravine sidewall because it meets the requirements of section 13.16.030 (29ii), which exempts landslide hazard areas that are less than 20' in height with the review of a soils report prepared by a qualified geologist or geotechnical engineer.

**BACKGROUND:**

John Rankin, hereafter referred to as applicant, is appealing an administrative decision that would require the deck he proposes to build to be constructed outside of the 25' buffer of the landslide hazard area and ravine sidewall. Section 13.16.070 2(a) of the Normandy Park Municipal Code (NPMC) prohibits development within 50' of a ravine sidewall or a landslide hazard area. The applicant was given an administrative exemption in 2002 to construct a house within 25' of the steep slope. A soils report provided to the city indicated that the steep slope was not susceptible to sliding and therefore was granted a 25' variance as allowed under section 13.16.070 (2b). The building permit that has been denied is for a deck that is within 10' of the ravine sidewall/landslide hazard area and would not qualify for that exemption. City staff has determined that the steep slope falls into two categories and they are each independent of each other. The ravine sidewall and landslide hazard definitions are applicable and both definitions and their regulations must be applied. The applicant's argument is that the classification "ravine sidewall" is not an independent category, but a subset of the larger classification "landslide hazard areas", which itself is a subset of the larger classification "hillsides", therefore the exemption should apply to all landslide hazard areas which includes ravine-sidewalls.

In proceedings before the Board of Adjustment of the City of Normandy Park, the Board of Adjustment, having heard and received statements and evidence as disclosed by the records herein, in regard to the Appeal to an Administrative Decision (V06-03) filed by Mr. John Rankin, hereafter referred to as "Applicant," now makes the following:

## **I. FINDINGS OF FACT**

- A. The applicant, John Rankin, applied for a building permit to allow construction of deck piers and a deck within 10 feet of a ravine sidewall.
- B. The Planning and Community Development Manager denied the request because the construction was within 10 feet of the top of a steep slope. The steep slope falls into two sensitive area categories of the Normandy Park Municipal Code, landslide hazard area (13.16.030(29)) and ravine sidewall (13.16.030(30)). The applicant was notified by US Mail of the denial in a letter from the Planning and Community Development Manager dated November 9, 2006.
- C. NPMC 18.20.040 authorizes appeals to administrative decisions to be heard by the Board of Adjustment.
- D. The applicant appealed the Administrative Decision in a letter dated November 11, 2007.
- E. The Board of Adjustment heard the Appeal at a Public Hearing called for that purpose on December 14, 2006. That hearing was continued until February, 2007 to get further information and to answer issues raised by Mr. Rankin during testimony.
- F. The Board of Adjustment moved to deny the appeal at the Continued Public Hearing on February 22, 2007.

## **II. CONCLUSIONS OF LAW**

### **ADMINISTRATIVE APPEAL OF DECISION BY PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR (V06-03)**

- A. NPMC 18.20.040: *Appeals shall be heard by the Board of Adjustment.*

It is under the Board of Adjustments powers to hear and decide appeals, when it is alleged that there is an error in any order, requirement, decision or determination made by an administrative official.

City staff and the City Attorney (see attached email) have reviewed the proposal and the sensitive areas regulations and have determined that a ravine sidewall and a landslide hazard area are two different definitions and must be treated separately. The applicant is correct in that there is some confusion about which category this particular falls into but it has been determined that each category is separate and therefore each

definition must be applied separately, one definition does not supersede the other. A stream is located at the base of the slope and looks to have created the ravine. Since it does contain a stream the area is considered a ravine which puts it into two categories, a landslide hazard area and a ravine sidewall. If the slope was not associated with a stream it would only be considered a landslide hazard area and would meet the definition outlined in 13.16.030 (29cii), but since it is considered a ravine, two definitions apply.

B. City's response to the applicant's letter:

1. The relevant code as it exists is contradictory and unclear regarding the applicability of such a permit application, but the intent for exemptions is clearly delineated in 13.16.030 (29cii).

*There is some confusion about which category and definition this particular geographic formation falls into but it has been determined that each category that it does fall into needs to be treated separately, one definition does not supersede another. Since this area falls into two categories each definition and their regulations must be applied independent of one another.*

2. The planning department has placed the property in a classification in which it does not belong, and denied the application on that basis.

*The City has determined that the area in question falls into two separate categories, a ravine-sidewall and landslide hazard area. Each different category and definition must be treated separately and independent of one another.*

3. The classification "Ravine-Sidewall" is not an independent category, but a subset of the larger classification "Landslide Hazard Areas", which itself is a subset of the larger classification "Hillsides".

*A stream is located at the base of the slope and looks to have created the ravine. Since it does contain a stream the area is considered a ravine which puts it into two categories, a landslide hazard area (based on gradient) and a ravine sidewall. If the slope was not associated with a stream it would only be considered a landslide hazard area and would meet the definition outlined in 13.16.030 (29cii), but since it is considered a ravine, two definitions apply. The City has determined that one sensitive area can contain multiple classifications and that the most restrictive one should apply.*

*Environmentally Sensitive Areas as outlined in section 13.16.030 (14) are those areas that include the following landform features: hillsides, bluffs, ravine sidewalls, wetlands, stream corridors, and the protective buffers necessary to protect the public health, safety, and welfare, each as defined in this section. It does not state that hillsides (or in this case landslide hazard areas) are a separate category that contain ravines and bluffs, they are each given the same weight. Furthermore, in both the Planning Commission and City Council meetings it was only discussed as a landslide hazard area exemption even though there are separate definitions for ravine sidewall and bluffs.*

4. The classification “Landslide Hazard Area” has a clearly delineated exemption for certain conditions, which in this case apply. All requirements to comply with the requirements of the exemption have been met.

*The applicant is correct that the area is considered a landslide hazard area and meets the exemption allowed in 13.16.030 (29cii). The area is also considered a ravine-sidewall which does not have an exemption.*

5. The letter cites code 13.16.070 (2a) in requiring a “minimum 50’ buffer of native vegetation”, and further indicated that the buffer intrusion is the reason for the denial. There has been no such buffer on this property since the lawn was put in when the house was constructed in 1950, predating the City by three years, and annexation into the city by over thirty years.

*This may be true but as of 1992 the City adopted a Sensitive Areas Ordinance that prohibits certain development within sensitive areas. Although at one time this type of project would have been allowed under our current regulations this type of development is prohibited.*

6. The construction will not only not affect the slope stability, but will improve it, insofar as water currently being allowed to flow from the lawn area to the slope will be redirected into an existing ex-filtration system designed specifically for this purpose.

*This may be true but this type of project is not allowed within a sensitive area.*

7. A letter from a geotechnical engineer is on file testifying to the stability of the slope in the area of the permit application, as required by the exemption in 13.16.030 (29cii).

*A copy of this letter is on file and has been provided to the Board for review.*

- C. That the Planning and Community Development Manager accurately applied the proper NPMC portions in denying the application.
1. Mr. Rankin had requested a deck within 25 feet of the top of a ravine sidewall. NPMC 13.16.0702(a) states that a minimum of a 50 foot buffer of native vegetation is required when an activity outlined in the code is adjacent to a ravine sidewall or landslide hazard area. Mr. Rankin had previously been granted a reduction in buffer width to 25 feet, as allowed administrative exemption (NPMC 13.16.070(2b)). Based on this section of the NPMC the building permit within 25 feet of the top of the ravine sidewall was denied.

### **III. ORDER**

**From the foregoing Findings of Fact and Conclusions of Law, it is hereby ordered that the appeal of an administrative decision (V06-03) filed herein is:**

**DENIED**

**AMENDED STAFF REPORT TO THE**  
**NORMANDY PARK BOARD OF ADJUSTMENT**

DATE: February 22, 2007

CASE #: V06-03

APPLICANT: John Rankin

LOCATION: 800 SW Normandy Road

PARCEL: 2105200030

ZONING: High Density Single Family Residential (R7.2)

REQUEST: Appealing an administrative decision that the ravine sidewall adjacent to the applicant's home is not exempt from the sensitive areas ordinance. The applicant believes that the ravine sidewall adjacent to his house should be exempt from the requirements of a ravine sidewall because it meets the requirements of section 13.16.030 (29ii), which exempts landslide hazard areas that are less than 20' in height with the review of a soils report prepared by a qualified geologist or geotechnical engineer.

**BACKGROUND:**

John Rankin, hereafter referred to as applicant, is appealing an administrative decision that would require the deck he proposes to build to be constructed outside of the 25' buffer of the landslide hazard area and ravine sidewall. Section 13.16.070 2(a) of the Normandy Park Municipal Code (NPMC) prohibits development within 50' of a ravine sidewall or a landslide hazard area. The applicant was given an administrative exemption in 2002 to construct a house within 25' of the steep slope. A soils report provided to the city indicated that the steep slope was not susceptible to sliding and therefore was granted a 25' variance as allowed under section 13.16.070 (2b). The building permit that has been denied is for a deck that is within 10' of the ravine sidewall/landslide hazard area and would not qualify for that exemption. City staff has determined that the steep slope falls into two categories and they are each independent of each other. The ravine sidewall and landslide hazard definitions are applicable and both definitions and their regulations must be applied. The applicant's argument is that the classification "ravine sidewall" is not an independent category, but a subset of the larger classification "landslide hazard areas", which itself is a subset of the larger classification "hillsides", therefore the exemption should apply to all landslide hazard areas which includes ravine-sidewalls.

In proceedings before the Board of Adjustment of the City of Normandy Park, the Board of Adjustment, having heard and received statements and evidence as disclosed by the records herein, in regard to the Appeal to an Administrative Decision (V06-03) filed by Mr. John Rankin, hereafter referred to as "Applicant," now makes the following:

## **I. FINDINGS OF FACT**

- A. The applicant, John Rankin, applied for a building permit to allow construction of deck piers and a deck within 10 feet of a ravine sidewall.
- B. The Planning and Community Development Manager denied the request because the construction was within 10 feet of the top of a steep slope. The steep slope falls into two sensitive area categories of the Normandy Park Municipal Code, landslide hazard area (13.16.030(29)) and ravine sidewall (13.16.030(30)). The applicant was notified by US Mail of the denial in a letter from the Planning and Community Development Manager dated November 9, 2006.
- C. NPMC 18.20.040 authorizes appeals to administrative decisions to be heard by the Board of Adjustment.
- D. The applicant appealed the Administrative Decision in a letter dated November 11, 2007.
- E. The Board of Adjustment heard the Appeal at a Public Hearing called for that purpose on December 14, 2006. That hearing was continued until February, 2007 to get further information and to answer issues raised by Mr. Rankin during testimony.
- F. The Board of Adjustment moved to deny the appeal at the Continued Public Hearing on February 22, 2007.

## **II. CONCLUSIONS OF LAW**

### **ADMINISTRATIVE APPEAL OF DECISION BY PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR (V06-03)**

- A. NPMC 18.20.040: *Appeals shall be heard by the Board of Adjustment.*

It is under the Board of Adjustments powers to hear and decide appeals, when it is alleged that there is an error in any order, requirement, decision or determination made by an administrative official.

City staff and the City Attorney (see attached email) have reviewed the proposal and the sensitive areas regulations and have determined that a ravine sidewall and a landslide hazard area are two different definitions and must be treated separately. The applicant is correct in that there is some confusion about which category this particular falls into but it has been determined that each category is separate and therefore each

definition must be applied separately, one definition does not supersede the other. A stream is located at the base of the slope and looks to have created the ravine. Since it does contain a stream the area is considered a ravine which puts it into two categories, a landslide hazard area and a ravine sidewall. If the slope was not associated with a stream it would only be considered a landslide hazard area and would meet the definition outlined in 13.16.030 (29cii), but since it is considered a ravine, two definitions apply.

B. City's response to the applicant's letter:

1. The relevant code as it exists is contradictory and unclear regarding the applicability of such a permit application, but the intent for exemptions is clearly delineated in 13.16.030 (29cii).

*There is some confusion about which category and definition this particular geographic formation falls into but it has been determined that each category that it does fall into needs to be treated separately, one definition does not supersede another. Since this area falls into two categories each definition and their regulations must be applied independent of one another.*

2. The planning department has placed the property in a classification in which it does not belong, and denied the application on that basis.

*The City has determined that the area in question falls into two separate categories, a ravine-sidewall and landslide hazard area. Each different category and definition must be treated separately and independent of one another.*

3. The classification "Ravine-Sidewall" is not an independent category, but a subset of the larger classification "Landslide Hazard Areas", which itself is a subset of the larger classification "Hillsides".

*A stream is located at the base of the slope and looks to have created the ravine. Since it does contain a stream the area is considered a ravine which puts it into two categories, a landslide hazard area (based on gradient) and a ravine sidewall. If the slope was not associated with a stream it would only be considered a landslide hazard area and would meet the definition outlined in 13.16.030 (29cii), but since it is considered a ravine, two definitions apply. The City has determined that one sensitive area can contain multiple classifications and that the most restrictive one should apply.*

*Environmentally Sensitive Areas as outlined in section 13.16.030 (14) are those areas that include the following landform features: hillsides, bluffs, ravine sidewalls, wetlands, stream corridors, and the protective buffers necessary to protect the public health, safety, and welfare, each as defined in this section. It does not state that hillsides (or in this case landslide hazard areas) are a separate category that contain ravines and bluffs, they are each given the same weight. Furthermore, in both the Planning Commission and City Council meetings it was only discussed as a landslide hazard area exemption even though there are separate definitions for ravine sidewall and bluffs.*

4. The classification “Landslide Hazard Area” has a clearly delineated exemption for certain conditions, which in this case apply. All requirements to comply with the requirements of the exemption have been met.

*The applicant is correct that the area is considered a landslide hazard area and meets the exemption allowed in 13.16.030 (29cii). The area is also considered a ravine-sidewall which does not have an exemption.*

5. The letter cites code 13.16.070 (2a) in requiring a “minimum 50’ buffer of native vegetation”, and further indicated that the buffer intrusion is the reason for the denial. There has been no such buffer on this property since the lawn was put in when the house was constructed in 1950, predating the City by three years, and annexation into the city by over thirty years.

*This may be true but as of 1992 the City adopted a Sensitive Areas Ordinance that prohibits certain development within sensitive areas. Although at one time this type of project would have been allowed under our current regulations this type of development is prohibited.*

6. The construction will not only not affect the slope stability, but will improve it, insofar as water currently being allowed to flow from the lawn area to the slope will be redirected into an existing ex-filtration system designed specifically for this purpose.

*This may be true but this type of project is not allowed within a sensitive area.*

7. A letter from a geotechnical engineer is on file testifying to the stability of the slope in the area of the permit application, as required by the exemption in 13.16.030 (29cii).

*A copy of this letter is on file and has been provided to the Board for review.*

- C. That the Planning and Community Development Manager accurately applied the proper NPMC portions in denying the application.
1. Mr. Rankin had requested a deck within 25 feet of the top of a ravine sidewall. NPMC 13.16.0702(a) states that a minimum of a 50 foot buffer of native vegetation is required when an activity outlined in the code is adjacent to a ravine sidewall or landslide hazard area. Mr. Rankin had previously been granted a reduction in buffer width to 25 feet, as allowed administrative exemption (NPMC 13.16.070(2b)). Based on this section of the NPMC the building permit within 25 feet of the top of the ravine sidewall was denied.

### **III. ORDER**

**From the foregoing Findings of Fact and Conclusions of Law, it is hereby ordered that the appeal of an administrative decision (V06-03) filed herein is:**

**DENIED**

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**CITY OF NORMANDY PARK**

**FINDINGS OF FACT AND CONCLUSIONS OF LAW  
FOR VARIANCE FROM THE  
ZONING ORDINANCE**

**Applicant:** John and Tracey Nelson

**Address of Property:** 19640 4<sup>th</sup> Ave SW

**Zone:** R15 (Single Family Residential)

**Parcel:** 0282500050

**Case Number:** V07-02

**Date:** February 22, 2007

In proceedings before the Board of Adjustment of the City of Normandy Park, the Board of Adjustment, having heard and received statements and evidence as disclosed by the records herein, in regard to the application for Variance (V07-02) filed on January 31, 2007 by John and Tracey Nelson hereafter referred to as "Applicant," now makes the following:

**I. FINDINGS OF FACT**

- A. The applicant's filed an application seeking a variance from Normandy Park Municipal Code 18.15.020: GFAR (Gross Floor Area Ratio). Their proposal was for an increase in the maximum GFAR allowed for the R15 zone, from .25 to .29.
- B. The real property (parcel # 0282500050) now subject to said City ordinances is located at 19640 4<sup>th</sup> Ave SW Normandy Park, Washington 98166.
- C. Normandy Park Municipal Code 18.16.070(2a) established a maximum GFAR for the R15 zone at .25.
- D. Under special circumstances outlined in section 18.20.060, a variance may be granted to allow development that exceeds the GFAR requirement.

- 43 E. The applicant's presented their case before the Board of  
44 Adjustment on February 22, 2006.
- 45 F. The property is 15,001 square feet and slopes from west  
46 to east. There is a relatively flat bench on the western  
47 most portion of the property at which point the property  
48 slopes to the east.
- 49 G. The applicant's contended that after purchasing the home  
50 it was discovered to have mold problems and other health  
51 risks which would require extensive remodeling or the  
52 removal of the house.
- 53 H. The applicant's argued that due to the topography of the  
54 lot it makes it very difficult to construct a house that would  
55 be able to meet the minimum GFAR.
- 56 I. The applicant's stated that he has discussed the lot  
57 confinements with an architect and it was determined that  
58 this was the only configuration that would work on this lot  
59 for a reasonable amount of money and that would not go  
60 three stories.
- 61 J. The applicant's argued that if they had a house in the  
62 R12.5 zone they would be able to construct the same size  
63 house that is allowed in the R15 zone, so it seems  
64 reasonable to allow for a larger house on larger zoned lot.
- 65 K. The applicant's stated that in order to receive a reasonable  
66 rate of return on their property that the increase in  
67 footprint was necessary.
- 68

## 69 II. CONCLUSIONS OF LAW

### 70 Zoning Variance (V07-02) from NPMC 18.15.020:

71 Development within the 20' front yard setback.

72

73 **A. 18.20.060 (1) - That the land or structure, for which**  
74 **the variance is requested, cannot be used reasonably and**  
75 **cannot yield a reasonable return if the use thereof is**  
76 **limited to the regulations specified for the use district in**  
77 **which such land or structure is located:**

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79 *The applicant's are not prevented from remodeling their*  
80 *house or from using it reasonably. The applicant's would*  
81 *be able to construct a house that could increase the*  
82 *current configuration by an additional 1,100 or more.*  
83 *Additionally, the applicant's are not being prevented from*  
84 *making the necessary upgrades to correct the health*

85 *issues they stated are one of the reasons for needing the*  
86 *variance or from receiving a reasonable return.*  
87 *Reasonable return is one of the considerations that is to be*  
88 *used in establishing the need for a variance but is not the*  
89 *sole criteria. The other requirement for this specific*  
90 *criterion is the property can not be used reasonably and*  
91 *the applicant's have not demonstrated that the house can*  
92 *not be used reasonably, they are not prevented from*  
93 *upgrading the condition of their home. Even if there were*  
94 *no improvements to the home it is presumed that the*  
95 *owners would still be able to receive a reasonable rate of*  
96 *return on their property if they were to sell it in the current*  
97 *condition. According to a real estate agent a typical family*  
98 *home in the area would be anywhere from 1,800 - 2,600*  
99 *square feet. The property value should continue to*  
100 *increase as it has over the last 3 years according to the*  
101 *King County tax records. The City can not grant variances*  
102 *because it would be a cheaper alternative than meeting*  
103 *the current zoning requirements.*

104  
105 **B. 18.20.060 (2) That the variance in use, requested by**  
106 **the applicant or appellant, if established will not be of a**  
107 **general classification differing or inconsistent from the**  
108 **essential use provisions of the use district in which such**  
109 **land or structure is located:**  
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111 *Granting this request would not create a use that is of a*  
112 *general classification differing or inconsistent from the*  
113 *essential use provisions of the use district. The proposed*  
114 *use is for a single family house and garage and is located*  
115 *within a single family residential zone.*

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117 **C. 18.20.060 (3) That the plight of the owner is due to**  
118 **unique circumstances which are not general to the other**  
119 **lots, parcels or portions of the use district and are not the**  
120 **result of the owner's voluntary actions:**  
121

122 *The applicant's unique circumstances, including location,*  
123 *topography, design and the condition of the home do not*  
124 *prohibit them from remodeling or redesigning their home.*  
125 *Many lots exist in Normandy Park were topographic*  
126 *constraints make for a less than desirable building lot. In*

127 *this case the lot is relatively flat with no sensitive areas*  
128 *and if this were a vacant lot could easily be constructed*  
129 *using the current regulations. The City of Normandy Park*  
130 *can not grant a variance because a house exists on this*  
131 *property and the least expensive way to construct a home*  
132 *that meets today's standards is by exempting certain*  
133 *zoning regulations. The applicant's are allowed to build on*  
134 *25 percent of their property which would allow a main floor*  
135 *area of 3,750 square feet which is considered an above*  
136 *average home size for this area. The zoning code for*  
137 *Normandy Park has been in place for a long time and most*  
138 *if not all houses have been able to meet the minimum*  
139 *requirements. There is nothing unique about this lot, the*  
140 *GFAR limit of the zone is more than sufficient to permit a*  
141 *reasonably sized home. The need to preserve the views*  
142 *and the surrounding character of the neighborhood is not a*  
143 *valid reason for a variance as the City has no view*  
144 *protection ordinances. The City is not able to grant*  
145 *variances for home owners that purchase a home and*  
146 *would like to change regulations to fit their needs, because*  
147 *it is not a large enough space for them to live in or it is*  
148 *cheaper for them to have the zoning regulations relaxed*  
149 *than to follow the requirements. Home owners who*  
150 *purchase a home in an R7.2 zone can not seek the same*  
151 *relief because they are on a small lot and want to have a*  
152 *bigger house, similar to those of their R15 neighbor's, it*  
153 *would undermine the reason for zoning regulations and the*  
154 *preservation of the towns character and policies.*

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### **III. ORDER**

**From the foregoing Findings of Fact and Conclusions of Law, it is hereby ordered that the application for the sensitive areas variance (V07-02) filed herein is:**

**DENIED**

165 **Dated this \_\_\_\_\_ Day of \_\_\_\_\_, 2007.**

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168 **\_\_\_\_\_**  
**Pat Presentin, Chairman, Board of Adjustment**

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171 **\_\_\_\_\_**  
**Noah Davis, Secretary to the Board of Adjustment**

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