



May 16, 2018

**S.J.C. DEPARTMENT OF
MAY 18 2018
COMMUNITY DEVELOPMENT**

Mr. Joe Brogan
Foster Pepper
1111 Third Avenue, Suite 3000
Seattle, WA 98101

**Re: Considerations for Rerouting of Existing Driveway
Runstad Residence
Blakeley Island, Washington
17921-00**

Dear Joe:

Per your request we have prepared this letter to address concerns with a concept to reroute the existing driveway to the Runstad's Beach House at their estate on Blakeley Island.

We understand that the County Code, Chapter 18.35.130(G)(3)€, requires an examination of whether alternatives including reconstruction or relocation of the driveway and utilities is feasible and less expensive. In our professional opinion, relocation and reconstruction are not feasible and less expensive.

In the first place, removal of the bulkhead will increase the potential for long term erosion of the base of the slope which will, in turn, lead to more sloughing and a regression of the slope in the uphill direction. By moving the driveway and NOT preventing further erosion of the toe, the problem is postponed and not alleviated.

Secondly, the concept of moving the driveway uphill is inconsistent with County Critical Areas Regulations applicable in the Shoreline. The attached figures show a plan location of two cross sections as well as those two sections in topographic profile. The more relevant cross section is Profile B, immediately uphill (and perpendicular to) the gravel driveway leading to the Beach House. The profile shows the slope immediately above the driveway is 22 percent which makes it a Class II Geologic Hazard.

Based on criteria presented in the county Code Standards (18.35.065 Geologically hazardous areas – Protection standards (18.35.065(B)(4)(a) and (B)(4)(b)...

4. Development shall be located in accordance with the following:



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- a. Structures and improvements shall be sited, designed, and constructed to minimize cut and fill and to retain as much of the natural topographic character of the slope as possible; and*
- b. Structures and improvements shall be located to avoid the most hazard-prone portion of the proposed development area and to preserve vegetation necessary to prevent soil erosion.*

The approach to reroute the driveway contradicts both of these provisions. Moving the driveway uphill would require use of fill materials on the slope which should be avoided, and/or cutting of the slope which would diminish the stability of the hillside above the driveway. Moving the driveway further into the Geologic Hazard Zone is not "siting, designing and constructing" the road to "minimize cut and fill and to retain as much of the topographical character as possible". Secondly, moving the driveway is inconsistent with "locating the road to avoid the most hazard-prone portion of the proposed development."

Given these constraints, maintaining the driveway on what was a previously disturbed, flat grade (pre-existing path) is, in my professional opinion, strongly advised. Our previous technical memorandum, dated December 17, 2015, addresses the impractical cost implications of relocating the driveway further upslope.

We trust that this letter provides you with the necessary information. Should you have any questions, please call at your convenience.

Sincerely,

HART CROWSER, INC.



GARRY E. HORVITZ, PE, LEG
Senior Principal Geotechnical Engineer

Attachments: Topographic Survey for Jon Runstad, Sheet 1 of 2 and 2 of 2