



April 7, 2016

RJ Development Services
401 Central Street SE
Olympia, Washington 98501

Attn: Mr. Jeff Yates
P: (360) 528-3343
E: jeff@rjdevelopment.com

Re: Geotechnical Opinion Letter – East Pedestrian Path
Jefferson House
12215 NE 128th Street
Kirkland, King County, Washington 98034
Terracon Project No. 81155062

Dear Mr. Yates:

This letter report has been completed in accordance with our Supplemental Scope and Fee Proposal dated March 30, 2016. The purpose of this letter report is to provide our opinions and recommendations regarding the proposed pedestrian stairway down the southern slope along the eastern edge of the above referenced property. The opinions and recommendations provided in this letter are based on the surface and subsurface conditions encountered during our site exploration program on July 31, 2015 and discussed in our Geotechnical Engineering Report dated September 15, 2015, Terracon Job Number 81155037, as well as observations made during a brief walk of the base of the slope on April 3, 2016.

Project Information

Based on discussions with the client, we understand the current development plan includes the construction of a roughly 25,000 square foot, 3-story nursing home in the currently undeveloped northeastern corner of the property. Vegetated-face retaining walls will be constructed along the west and portions of the north and south sides of the building to create a level building pad. We understand the City of Kirkland will require construction of a pedestrian walkway within a 10-foot wide easement along the eastern property line from NE 128th Street at the north to Totem Lake Way at the south.

Existing Slope Conditions

Based on the a Boundary/Topography Plan by Encompass Engineering and Surveying, dated September 15, 2015, approximately the southern third of the proposed walkway would extend down a steep slope. The grade of the slope appears to range from about 65 to 80 percent with a total vertical relief of roughly 90 feet. A 5- to 6-foot tall rockery retaining wall is located at the

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base of the slope adjacent to the northern curb line of Totem Lake Way. An area roughly 100 feet wide that includes the pedestrian easement is generally covered with small diameter trees up to about 15 feet in height with thick underbrush and high voltage overhead power lines. Large cottonwood trees cover the slope to the east and west of the power lines.

Soils encountered in the borings advanced for our original scope of services near the top of the southern slope generally consisted of topsoil above about 5 feet of loose to medium dense sand over very dense, glacially consolidated silty sand with gravel.

Construction on Steep Slopes

As noted in our Geotechnical Engineering Report, the slope is mapped as a High Landslide Hazard Area by the City of Kirkland which is defined in Chapter 85 of the Kirkland Zoning Code (KZC) as areas sloping 40 percent or greater or subject to previous landslide activities. Section 85.25 of the KZC requires “retention, of any and all trees, shrubs, and groundcover” and limitation of development activity that may significantly impact drainage patterns or cause serious erosion hazards.

In our opinion, removal of vegetation and construction of a pedestrian stairway on the southern steep slope would increase the risk of surficial erosion and would negatively impact the stability of the slope. Additionally, removal of a portion of the rockery at the base of the wall to allow the walkway to reach street grade would effectively require steepening the lower portion of the slope. We recommend development activities on the site be limited to the proposed parking and building construction atop the slope.

General Comments

The recommendations presented in this addendum are based upon the data obtained from the borings at the locations indicated in the Geotechnical Engineering Report referenced above and from other information discussed in the report and the above paragraphs. This letter does not reflect variations that may occur between explorations, across the site, or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

We appreciate the opportunity to perform these services for you. Please contact us if you have questions regarding this information or if we can provide any additional services.



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Geotechnical



Environmental



Construction Materials

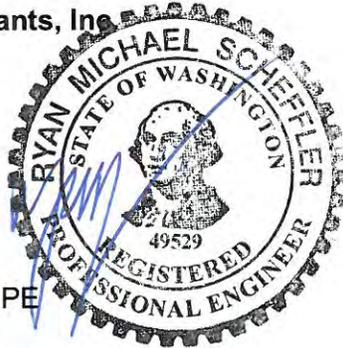


Facilities

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Terracon

Sincerely,
Terracon Consultants, Inc



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Project Engineer

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