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City of Lake Forest Park

August 13, 2019

Mr. Dennis Wick  
19025-A 61<sup>st</sup> Place NE  
Kenmore, Washington 98028

Planning Review Comments Letter  
Wick Residential Lot  
Lake Forest Park, Washington  
File No. 2613-001C

Dear Mr. Wick,

This letter presents our response to Planning Review Comments as outlined in a letter from the City of Lake Forest Park dated May 13, 2019. In this letter we have been asked to address Planning review comments 2, 4, 5, 6 and 7 which are included in their entirety below. Our previous involvement with the project has included the preparation of the following documents: Revised Original Slope Evaluation Letter dated October 15, 2010, Updated Geotechnical Engineering Report dated April 13, 2016, Steep Slope Response Letter dated October 3, 2016, and Addendum Letter to Updated Geotechnical Report dated July 27, 2018. For our use in addressing these comments we have been provided with, and have reviewed, the plan sheets shown in the table below.

Plan Sheet	Prepared By	Date
A1.0	Alexandra Immel Residential Design LLC	December 19, 2018
A1.1	Alexandra Immel Residential Design LLC	December 19, 2018
C0.0	Red Barn Engineering Inc.	February 11, 2019
C0.1	Red Barn Engineering Inc.	February 11, 2019
C1.0	Red Barn Engineering Inc.	February 11, 2019
C1.1	Red Barn Engineering Inc.	February 11, 2019
C2.0	Red Barn Engineering Inc.	February 11, 2019
C2.1	Red Barn Engineering Inc.	February 11, 2019
C2.2	Red Barn Engineering Inc.	February 11, 2019
C2.3	Red Barn Engineering Inc.	February 11, 2019

#### PLANNING REVIEW COMMENTS

2. *It is unclear from the Robinson Noble July 27, 2018 letter if the firm is referencing the most up-to-date plans submitted in March 2019. The July 27, 2018 letter "reaffirms the opinions, conclusions, and recommendations presented [in] our Revised Original Slope Evaluation Letter and updated Geotechnical Engineer Report," however these documents seem to reference site plans that show the building pad in a different location from what is shown on Sheet A1.1 (the site plan submitted in March 2019). Please submit an updated geotechnical report or letter that confirms that the proposed building pad illustrated on Sheet A1.1 of the March 2019 submittal meets the necessary criteria listed in LFMPC 16.16.310.D, which details criteria from steep slope permitted alterations.*

4. *The submitted geotechnical letters and reports do not address how the proposed Geogrid wall complies with LFMPC 16.16.310.D. Please provide an updated geotechnical letter demonstrating that the proposed Geogrid wall will comply with the criteria.*

5. *Sheet A1.1 (Site Plan) shows the proposed structure being built within 10 feet of the front lot line. The setback for front lot lines is 20 ft. A reduced setback request was not mentioned in submitted geotechnical letters/reports or approved within the Findings or Notice of Decision for 2016-SAMJ-0013. If you would like a reduced front yard setback, please submit an updated geotechnical report or letter that confirms that the proposal meets the criteria listed in 16.16.240.C.5.*

6. *In line with PACE's comment #3, LFMPC 16.16.310.B.1 states that "an approved surface water conveyance may be allowed on steep slopes if in the judgement of the planning director it can be installed in a manner to minimize disturbance to the slope and vegetation." The submitted geotechnical letters and reports do not specifically address how the proposed surface water conveyance system meets the criteria. If you are requesting the ability to place a dispersion BMP within the steep slope hazard area, please submit that request formally with an updated geotechnical report or letter that shows the proposal meets 16.16.310.D.*

7. *LFPMC 16.16.310.B.3 states that "utility corridors on steep slope hazard areas may be permitted if a study performed by a qualified professional establishes to the satisfaction of the planning director that the risk of landslide or erosion will not increase." The submitted geotechnical letters and reports do not specifically address the proposed utility corridor shown in plans. Please provide an updated geotechnical report letter that shows the proposed utility corridor meets 16.16.310.B.3.*

#### COMMENT RESPONSES

##### Comments 2, 4 and 6

Review comments numbers 2, 4, and 6 have asked that we address the proposed development's compliance with LFMPC Section 16.16.130.D. This section states that proposals altering steep slopes must meet four criteria. These criteria are shown below with our response immediately following each criteria for clarity.

1. *The proposal shall not decrease slope stability on the site or adjoining properties.*

The proposed building pad as shown in the March 2019 plan submittal is sited further west compared to the building pad location addressed in our previous documents. This moves the building further away from the steeply sloping area to the east, decreasing the amount of load that the building would be placing on the slope. The building also remains outside of the buffer and setback for the steep slope located to the south.

In addition an MSE wall is proposed east of the building. This wall has been designed by us to serve as a retaining system for proposed grading to level out the area directly to the east of the residence. It has been designed to bear within the underlying dense glacial till of the slope, effectively increasing the stability of the area as it takes the place of loose to medium dense fill soils within the surficial depth of the slope.

The surface water conveyance for the project is proposed to follow the general alignment of the existing utility easement for storm and sewer lines running within the southern portion of the existing parcel. The proposed surface water conveyance has been routed to avoid the steepest portion of the slope and remain as close as possible to areas previously impacted by the existing utility easement. An 8-inch HDPE will be installed on the ground surface. This is a common method to direct surface water down the slope. It is our opinion that the use of the HDPE pipe will not decrease stability at the site or adjoining properties.

2. *The proposal shall be subject to certification by a qualified professional that the landslide hazard area can be modified safely or that the development proposal eliminates or mitigates the landslide risk to the property or adjacent property.*

We concluded in our Revised Original Slope Evaluation Letter that the placement of undocumented fill on the native slope created the steep slope conditions at the site. Therefore the original slope is not considered to be a steep slope. The proposed MSE wall will increase the stability of the slope by serving as a designed, stable system. The installation of the wall will result in the removal of portions of the undocumented fill where the geogrid will be installed, and will bear within the underlying dense glacial till. This mitigates the risk of surficial sloughing of the fill soils on the slope, and improves slope stability.

3. *The proposal shall not adversely impact other sensitive areas, such as streams.*

There are no other sensitive areas at the project site.

4. *The proposal shall not result in an increase in peak surface water flows or sedimentation to adjacent properties.*

The surface water impact to the slope will be reduced by leveling out a portion of the steeply sloping area by proposed fill grading behind the MSE wall. This decreases

potential surface water velocities and the impact on the remaining surficial fill soils below the wall. No discharge of collected water from the project is proposed within the steeply sloping area or on the original moderate slope. The surface water to be collected will be routed beyond the base of the moderate and steep slope at the eastern extent of the property.

#### Comment 5

Review comment 5 states that for a reduced front yard setback the proposal must meet the criteria of LFPMC Section 16.16.240.C.5. This section states that the setback reduction must not result in four criteria. These criteria are shown below with our response immediately following each criteria for clarity.

- a. Be materially detrimental to the public welfare or injurious to adjacent property or development or alterations;*

The proposed reduced front yard setback to 10 feet instead of 20 feet is the result of shifting the building footprint location to the west and rotating the northwest corner of the proposed structure to the north. This locates the residence within a greater portion of the naturally flatter area of the site resulting in less impact from the building footprint on the steep slope located to the east. The reduced setback does not result in additional impact to neighboring structures or adjacent properties. In our opinion the reduced setback is not materially detrimental to the public welfare or injurious to adjacent property or development or alterations.

- b. Alter the neighborhood character or the appropriate use or development of adjacent property;*

The reduced setback will not affect the use of adjacent properties to the north and west. These properties have already been developed with residences. From a geotechnical perspective, it is our opinion that the reduced setback will not alter the neighborhood character or the appropriate use or development of adjacent property.

- c. Conflict with the general purposes and objectives of the comprehensive plan;*

The reduced front yard setback is a minimal reduction for a single residence and does not result in impact to any adjacent properties. It allows only for a more natural use of the existing property with less impact to steep slopes. It is our geotechnical opinion that the reduced front yard setback does not conflict with the general purposes and objectives of the comprehensive plan.

- d. Degrade critical areas and critical areas buffer functions.*

The reduced front yard setback results in less impact to the steep slope area to the east of the proposed footprint. There are no other critical areas located on the site. It is our

opinion that the reduced front yard setback does not degrade critical areas and critical areas buffer functions.

**Comment 7**

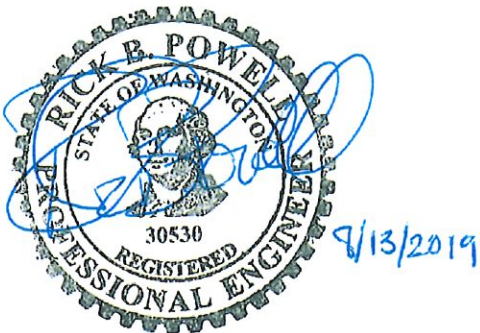
Review comment 7 states that alterations to steep slopes and buffers due to utility corridors must meet LFPMC Section 16.16.310.B.3. This section is presented below with our response immediately following for clarity.

1. *Utility corridors on steep slope hazard areas may be permitted if a study performed by a qualified professional establishes to the satisfaction of the planning director that the risk of landslide or erosion will not increase.*

The proposed utility corridor is routed to run adjacent to the existing utility easement along the southern boundary of the property. During our previous studies of the slope we did not observe indication of instability that may be the result of the existing utility corridor. We also did not observe indications of surficial sloughing within the easement area. The proposed utility corridor will be routed within areas that have already been developed with the existing corridor, and routed to avoid the steepest portion of the slope. The HDPE pipe laid on the ground surface will minimize impacts to slope stability. We expect that erosion potential from the installation can be managed with typical erosion control best management practices. It is our opinion that the risk of landslide or erosion will not increase from the utility corridor, and in fact the storm water control should reduce the risk of slide events.

We appreciate the opportunity to be of service to you. If there are any questions concerning this letter or if we can provide additional services, please call.

Sincerely,  
Robinson Noble, Inc.



Rick B. Powell, PE  
Principal Engineer

JHA:RBP:am