

February 1, 2019
File No. 14-206.200

Mr. Mark Lu
New Horizon Real Estate Development
8744 126th Avenue NE
Kirkland, WA 98033

**Subject: Geotechnical Plan Review and Statement of Minimum Risks
Proposed Single-Family Residence
8379 East Mercer Way, Mercer Island, Washington**

Dear Mr. Lu,

As requested, PanGEO reviewed the geotechnical engineering aspects of the current plans for the above-referenced project. The plan sheets we reviewed for the proposed development included the following:

1. Architecture Plan Sheets A1.0 through A4.1 dated January 30, 2019 by Ripple Design Studio;
2. Structural Plan Sheets S1.1 through S5.1 last revised on June 13, 2018 by Burker Engineering LLC.
3. Civil Plan Sheets C1.0 through C4.3 last revised on January 31, 2019 by Civil Engineering Solutions.

DEVELOPMENT CONDITIONS

We understand that the site is mapped as a geologic hazard area. Per Mercer Island City Code Section 19.07.060.D.1, alteration of geologic hazard areas may occur if such alterations meet the following conditions:

- a) Will not adversely impact other critical areas;

- b) Will not adversely impact (e.g., landslides, earth movement, increase surface water flows, etc.) the subject property or adjacent properties;
- c) Will mitigate impacts to the geologic hazard area consistent with best available science to the maximum extent reasonably possible such that the site is determined to be safe; and
- d) Include the landscaping of all disturbed areas outside of building footprints and installation of all impervious surface prior to final inspection.

Based on our review of the current plans, it is our opinion that the proposed project meets the above conditions, and will not have adverse impacts to the adjacent wetland, the subject and surrounding properties during and after construction, provided that project is constructed in accordance with the approved plans and commonly accepted practice.

STATEMENT OF MINIMUM RISKS

We understand that the site is mapped as a geologic hazard area. Per Mercer Island City Code Section 19.07.060.D.2, development within geologic hazard areas and critical slopes may occur if the geotechnical engineer provides a statement of risk with supporting documentation indicating that one of the following conditions can be met:

- a. The geologic hazard area will be modified, or the development has been designed so that the risk to the lot and adjacent property is eliminated or mitigated such that the site is determined to be safe; or
- b. An evaluation of site specific subsurface conditions demonstrates that the proposed development is not located in a geologic hazard area; or
- c. Development practices are proposed for the alteration that would render the development as safe as if it were not located in a geologic hazard area; or
- d. The alteration is so minor as not to pose a threat to the public health, safety, and welfare.

It is our opinion that Criterion © can be met through best management practices during construction, including the proper use of silt fence, minimize earthwork activities during periods heavy precipitations, minimized exposed areas in wet season, etc. Permanent erosion control

measures including landscape and hardscape installations will effectively mitigate the risk of erosion in the long term.

CLOSURE

We trust that the information outlined in this letter meets your need at this time. Please call if you have any questions.

Sincerely,



2/1/2019

Michael H. Xue, P.E.
Senior Geotechnical Engineer