

May 17, 2024

JN 23030

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via email: rasdo@microsoft.com and ashleyk@microsoft.com

Subject: **Addendum to Geotechnical Engineering Report and
Review of Plans**
Proposed Asdourian Residence
5300 Butterworth Road
Mercer Island, Washington

Reference: *Geotechnical Engineering Study and Critical Area Study*, same site and project;
Geotech Consultants, Inc.; March 7, 2023.

Greetings:

This addendum to our March 7, 2023 report has been prepared to respond to comments made by City of Mercer Island in the plan review process. We have been provided with the revised drawings (architectural plans by Sturman Architects dated 2024-5-13, civil plans by Patrick Harron Associates dated 5/9/24, and structural plans prepared by O.G. Engineering dated 5-10-24).

The grading has been modified at the southwest corner of the garage to eliminate the taller walls previously planned. A pile-supported concrete pad for garbage and HVAC units surrounded by short walls will now be constructed off the southwest corner of the garage. A short, conventionally-supported retaining wall is to be constructed north of the house to retain fill needed to raise the grade. This wall is shown on both the architectural and structural plans. We have recommended that this wall be designed for a 1,500 psf allowable bearing pressure. This is indicated on the structural notes of page S1.

Statement of Risk: We have reviewed the geotechnical aspects of the above-referenced drawings. Based on this review, the current plans conform to the recommendations of our *Geotechnical Engineering Study*.

We provide the following “statement of risk” to satisfy City of Mercer Island conditions:

Construction practices are proposed for the alteration that would render the development as safe as if it were not located in a geologically hazardous area and do not adversely impact adjacent properties.

MICC 19.07.100 Mitigation Sequencing

Response: In order to satisfy MICC 19.07.100 this project has addressed mitigation of impacts to the Seismic, Steep Slope, Potential Landslide, and Erosion Hazard critical areas present on site in the following manners:

A – Avoiding Impact altogether:

- The site has previously been developed and all of the mapped geologic critical areas on the property have already been disturbed or modified. The planned development includes

foundation, drainage, and grading that will avoid increasing the impact to the critical areas on and adjacent to the site. Excavations for the new residence will be shallow, only a few feet deep.

B – Minimizing Impact:

- The planned work will not extend close to steep slopes. The excavation in the yard area east of the existing/new house will be limited to what is necessary for utility installation. The new foundation system (piles, grade beams, and structural slabs) will be a substantial improvement for seismic hazard protection for the new home over what currently exists in the old house.

C – Rectify impacts:

- Outside of the building areas, all areas of disturbed soil will be planted or landscaped to provide permanent erosion protection. During site earthwork, temporary erosion control measures will be implemented to prevent adverse erosion impacts.

D – Reduce or eliminate impact over time:

- Not Applicable

E- Compensate for impact:

- Not Applicable

F – Monitor the impact:

- The planned development does not adversely impact the mapped potential landslide or seismic hazard. The only potential for adverse impacts with regard to the mapped erosion is during construction, before permanent landscaping measures are fully implemented. The proper function of the temporary erosion control system will be monitored during the site work by the general contractor, as well as representatives of the City of Mercer Island and the project geotechnical engineer. The general or earthwork contractors will be responsible to take immediate action to correct any erosion control issues, such as silty runoff leaving the work area.

Please contact us if you have any questions regarding this letter, or if we can be of further assistance.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.



5/17/2024

Marc R. McGinnis, P.E.
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