



**NELSON GEOTECHNICAL
ASSOCIATES. INC.**

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June 29, 2023

Avneet Atwal

Via Email: avneetatwal@gmail.com

Geotechnical Plan Review Letter
Atwal Residence Additions
4029 – 97th Avenue SE
Mercer Island, Washington
NGA File No. 1408122

Dear Avneet:

This letter presents the results of our geotechnical engineering review of plans for the Atwal Residence Additions project located at **4029 – 97th Avenue SE on Mercer Island, Washington.**

INTRODUCTION

We previously prepared a geotechnical engineering evaluation for the project site dated November 29, 2022. In general, we concluded that the site does not contain Landslide Hazard Areas or Protected Slope Areas as defined by the Mercer Island Municipal Code (MICC). The site is currently occupied by an existing single-family residence. Site topography is relatively level and includes a block retaining wall on the western property line and a rockery on the eastern property line. The proposed development plans consist of constructing a second-story addition within the footprint of the existing residence, and a main level addition along the southeast side of it.

We understand that the City of Mercer Island has requested a Statement of Risk in a letter dated June 12, 2023. For our use in preparing this letter, we were provided with a plan set titled “A Residential Remodel & Addition – 4029 Mercer Island,” dated April 4, 2023, prepared by Yen Design, Inc.

PLAN REVIEW AND CONCLUSIONS

We have reviewed the geotechnical aspects of the provided plans and found them to be in general compliance with our recommendations as presented in our previous geotechnical report. It is our opinion that the proposed development should not adversely impact existing slope stability conditions within the subject site and neighboring properties. Project plans indicate that the embedment of new foundations will be determined by frost depth called for in local code. The 2018 IBC calls for a minimum embedment of 18 inches for frost protection. Based on our explorations within the site this depth should also be adequate to ensure structures are founded on component native soils. Structural plans indicate soil bearing pressures of 2,000 psf were utilized in the design in accordance with our recommendations. Footing drains consisting of 4-inch, rigid, perforated, PVC pipes surrounded by free draining material and wrapped in filter fabric will be installed around all new foundations. We recommend that the presence of footing drains around existing foundations be confirmed during construction and if they are not present, we recommend they be added. All other recommendations provided in our previous report should be strictly followed.

MINIMUM RISK STATEMENT

Based on our understanding of the proposed plans, and provided that the recommendations in our previous report and this letter are strictly followed during construction. Based on our site-specific subsurface evaluation the proposed development is not within a landslide hazard area or seismic hazard area meeting the requirements stated in **Mercer Island City Code 19.07.160.B.3.a.**

CLOSURE

We recommend that NGA be retained to provide monitoring and consultation services during construction to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should the conditions revealed during the work differ from those anticipated, and to evaluate whether or not earthwork activities comply with contract plans and specifications.

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We appreciate the opportunity to provide service to you on this project. Please contact us if you have any questions regarding this letter or require further information.

Sincerely,

NELSON GEOTECHNICAL ASSOCIATES, INC.



Sarah L. Dunn, GIT
Project Geologist



Khaled M. Shawish, PE
Principal

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