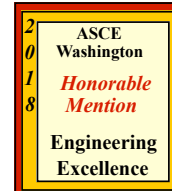


December 10, 2021
Project No. 2CL0226960

Hailley Long
hailley.long@struxureoutdoor.com

Re: Geotechnical Engineering Statement of Risk
Proposed Louvered Pergola
4107 83rd Ave SE
Mercer Island, WA 98040



Dear Hailley:

At your request, I prepared this letter of statement of risk for permit application to construct the proposed Louvered Pergola.

We understand that, from the information you provided and my site visit on December 7, 2021, the proposed Pergola is to cover southwest corner of the existing deck on site in the backyard with dimension of 20' x 24'.

We understand that, the design of the Pergola has been structural engineered and submitted to City of Mercer Island for construction permit. The city has determined that the site is located in geologic hazard area, and the environmental section of the land use code requires a statement of risk from a geotechnical engineer before issuing the permit. Therefore, it is our understanding that the scope of this letter is limited in The Statement of Risk in geologic hazard area required in MICC 19.07.160.

I visited the site and observed that the property is in a rectangular shape 296' x 111' with long side in W-E direction, and slopes gently to west at ~< 10%. The one story house and driveway occupies the eastern half of the property, the western half of the property is landscape lawn with two tiers short retaining walls (~2' to 3' height) in the middle of the lawn.

I did not observe unstable slope and erosion, or indication of unstable slope and erosion. We understand that the foundation pads supporting the proposed Pergola requires 2,000 psf bearing soil. So if the footings are to be adjacent and behind a retaining wall, the footings need to be installed below the bottom of the retaining wall, so the footings are not dependent of the retaining wall.

It is my opinion that, if the work is completed as above recommended, MICC 19.07.160(B) (3)(c) is applicable to the project, i.e., "Construction practices are proposed for the alteration that would render the development as safe as if it were not located in a geologically hazardous are and do not adversely impact adjacent properties:" Therefore, the proposed Pergola installation will have minimal or no risk to the slope condition on site.

Thank you for this opportunity to work with you on this project. If you have any questions, please contact us at 425-454-2133.

Sincerely,



December 10, 2021

Austin Huang, Ph.D., P.E., LG., F.ASCE, D.GE

President

Diplomate - Academy of Geo-Professionals.

Fellow - American Society of Civil Engineering

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