

March 2, 2018

JN 16543

The Ladybug Trust
1420 – 5th Avenue, Suite 4200
Seattle, Washington 98111-9402

Attention: Michael Morgan
via email: morganm@lanepowell.com

Subject: **Review of Plans**
Proposed Ogden Point Residence
3675 West Mercer Way
Mercer Island, Washington

Dear Mr. Morgan:

As requested, we have completed a general review of the geotechnical aspects of the plans for the residence, detached garage/pool house, and swimming pool to be constructed at 3675 West Mercer Way in Mercer Island. We completed a geotechnical engineering study for this project dated January 3, 2017 and a shoring addendum dated September 21, 2017. During the development of the plans, we have had frequent interactions with the architectural and structural design team regarding the foundation and shoring design.

Separate plan sets have been prepared for the residence and the detached garage/pool house, which is on a separate parcel. The plans we reviewed included Sheets A0.1 through A12.1 and A0.1 through A9.1 prepared by Demetriou Architects dated February 15, 2018 and December 6, 2017, respectively. We also reviewed Sheets S1.1 through S4.4 and Sheets S1.1 through S4.3 prepared by Swenson Say Faget (SSF) dated November 10, 2017 and January 23, 2018, respectively. In addition, we reviewed Sheets SH1 through SH6 prepared by SSF dated February 6, 2018. Other plans we reviewed were Sheets C1 through C6 prepared by Triad dated January 16, 2018 and Sheets L1.2 through L2.0 by Ken Large Landscape Architect dated January 18, 2018. We understand that these plans are the most recent.

The plans show that extensive tiered and tied-back shoring will be installed to support a large excavation for a driveway at the east side of the development. Most of the proposed structures will be supported with pipe piles, with the exception of the garage that will be connected to the east side of the main residence. That area will be lowered substantially and competent native soils will be exposed in the garage subgrade. However, pipe piles will likely be required to support at least some of the western garage foundation, as an excavation for the adjacent residence will likely extend into the garage footprint. We understand that the foundation plan is to be revised to show additional pipe piles for the garage foundation.

The project will include installation of buried off-site utilities that will be extended from West Mercer Way and will cross a steep slope. We understand that where those utilities will cross steep slopes they may be installed using trenchless technology or in hand-dug trenches. If trenches will be excavated the contractor will need to take great care to control erosion in disturbed areas.

In our judgment, with the exception of the above clarifications, the plans conform to the

recommendations in our geotechnical engineering report. If the recommendations and conditions of the geotechnical engineering report are satisfied during construction and use of the project, the proposed project will not increase the potential for soil movement. The areas disturbed by construction will be stabilized and should remain stable, subject to the conditions of our geotechnical engineering report. The risk of damage to the proposed development, or to adjacent properties, from soil instability on this site will be minimal, subject to the conditions set forth in our report. The use of the word "minimal" should not be taken to imply that there is no risk, but rather that the risk is low, as construction on, or close to, a slope always involves some risk.

To satisfy City of Mercer Island requirements we provide the following statement:

"It is our professional opinion that the development practices proposed in our reports and the reviewed plans for the new development should render the development as safe as if it were not located in a geologic hazard area."

We understand that the City of Mercer Island has requested that we review the planting plan that will be established on disturbed steep slopes. The steep slope east of the main development and shoring wall will be vegetated with numerous trees, and the utility corridor will be vegetated with numerous ground cover plants and a few trees. Provided all disturbed surfaces of steep slopes are covered with mulch, the proposed planting plan appears to be adequate to control erosion.

Please contact us if you have any questions regarding this letter.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.



Marc R. McGinnis, P.E.
Principal

cc: **Demetriou Architects** – David Jaffe
via email: daj@demetriou.net

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