

May 1, 2018
PanGEO File No. 17-143.200

The Mills Family

c/o Mr. Joseph Greif
Greif Architects / Living Architecture
921 NE Boat Street
Seattle, Washington 98105

**Subject: Geotechnical Response to Review Comments
Proposed Residence
5236 West Mercer Way
Mercer Island, Washington 98125**

Reference: Geotechnical Engineering Report, Proposed Residence, 5236 West Mercer Way, Mercer Island, Washington, prepared by PanGEO Inc., dated October 5, 2017.

Dear Mr. Greif:

As requested, the following letter is provided to address review comments put forth in the City of Mercer Island Review Letter dated February 5, 2018, regarding the above-referenced project. Item numbers 22 through 26 of the Correction Notice concerns geotechnical subject matters, and are addressed below.

Items 22 & 23: Geologic Soil Unit Discussion

We interpreted the soils encountered below the fill in boring PG-6 (east of the subject site), as alluvium due to the observed soil texture. We did not observe a disturbed soil texture within this unit as is often observed in colluvium. In our opinion, it is possible that this soil unit was not associated with the current seasonal stream, but was deposited by an older stream system in the area. We agree with the reviewer that colluvium is often found on sloping sites, and it is possible that the bottom of the fill unit contains colluvium that was mixed with fill soils during original grading of the site.

Items 24 & 25: Soils to be Exposed in Permanent Cut

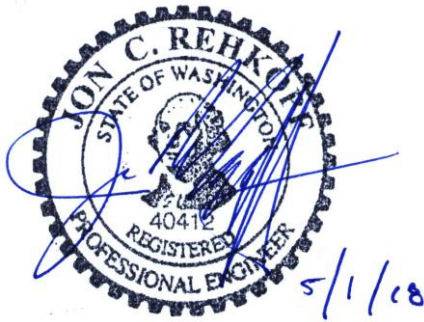
The previously proposed permanent 2H:1V cut slope east of the proposed house has been eliminated and replaced with a tiered gabion basket wall. Our original report provided general recommendations for gabion basket walls at the site, however, we have prepared a specific gabion basket wall design for the sloping areas of the site north and east of the proposed residence. Please see attached Figure A for a typical schematic section of a gabion basket wall north and east of the proposed residence.

26: Proposed Grading North and East of Proposed Residence

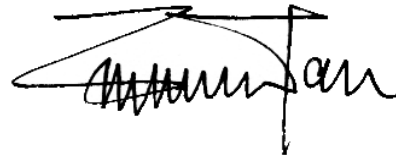
As described above, the proposed permanent 2H:1V cuts to the north and east of the house have been replaced with gabion basket walls to significantly reduce the disturbed area of the site, and prevent grading from impacting tree protection areas.

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

Sincerely,

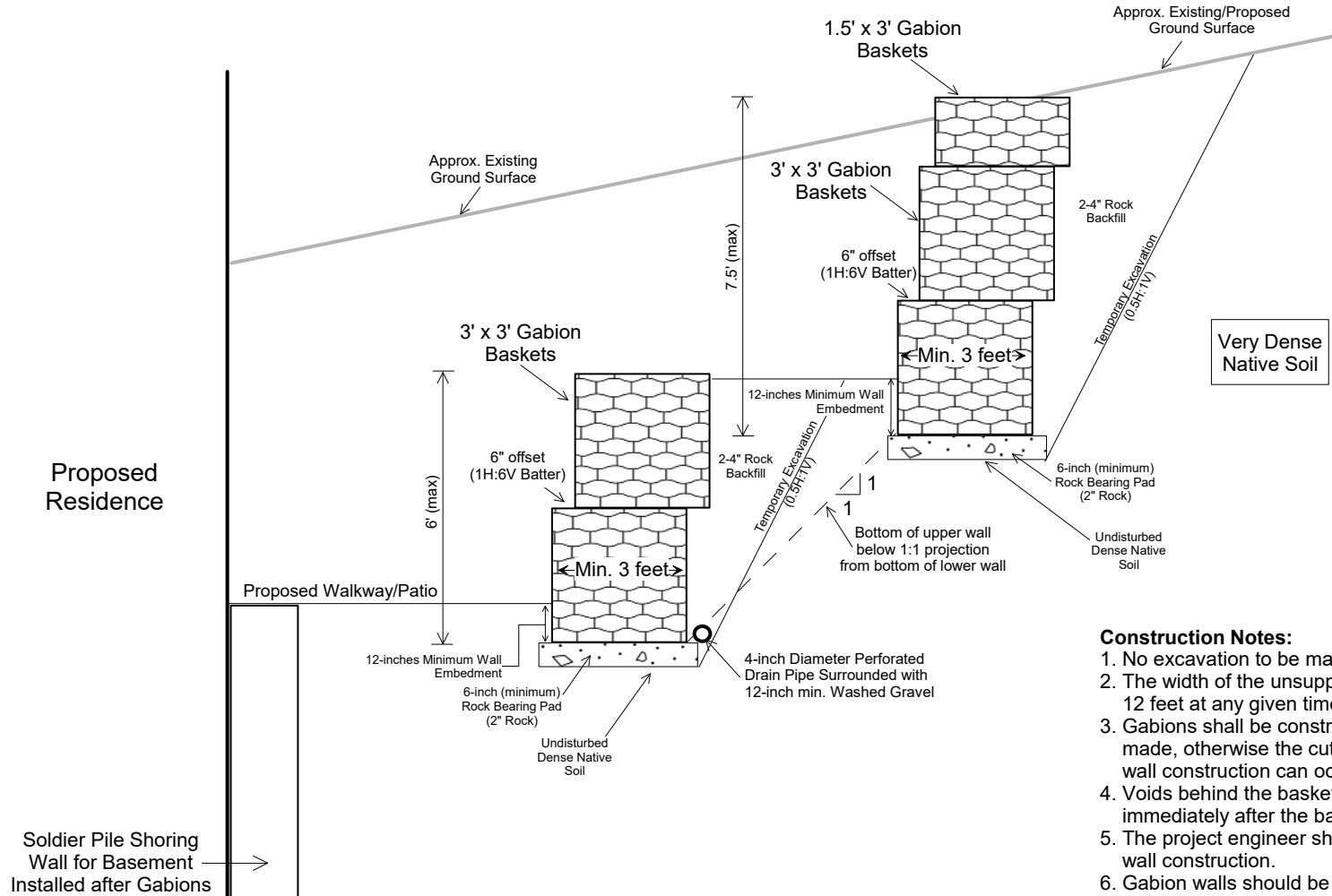


Jon C. Rehkopf, P.E.
Senior Project Geotechnical Engineer



Siew L. Tan, P.E.
Principal

Attachment: Figure A – Typical Schematic Section – Gabion Basket Walls



Construction Notes:

1. No excavation to be made until wall materials are on site.
2. The width of the unsupported cut face shall be limited to 12 feet at any given time.
3. Gabions shall be constructed immediately after the cut is made, otherwise the cut face should be buttressed until wall construction can occur.
4. Voids behind the baskets should be backfilled with rock immediately after the baskets are filled.
5. The project engineer shall monitor excavations and wall construction.
6. Gabion walls should be constructed in general accordance with Section 8-24.3(3) and 9-27.3 of the 2018 WSDOT Standard Specifications.

**Tiered Gabion Walls East of Proposed Residence
(not to scale)**



**Proposed Residence
5236 West Mercer Way
Mercer Island, Washington**

**TYPICAL SCHEMATIC SECTION
GABION BASKET WALLS**

Project No.

17-143.200

Figure No.

A