



June 2, 2022

Mr. Habib Matin  
Placid Holdings Inc.  
10475 SW Helenius Street  
Tualatin, Oregon 97062

Via email:        habib.emerald@comcast.net

Regarding:        Geotechnical Engineering Update  
                      Scholls Ferry Road Residential Development  
                      15584 SW Scholls Ferry Road  
                      Beaverton, Oregon  
                      PBS Project 74029.001

Dear Mr. Matin:

PBS Engineering and Environmental Inc. (PBS) is pleased to submit this Geotechnical Engineering update letter regarding the Scholls Ferry Road Residential Development at 15584 SW Scholls Ferry Road in Beaverton, Oregon.

### **PROJECT UNDERSTANDING**

PBS completed a geotechnical evaluation for the project and presented the results in a report dated February 15, 2019.<sup>1</sup> Development of the site has not started. Modifications to the original development plans were completed subsequent to completion of the geotechnical engineering report for the project.

Due to the age of the report and limitation related to its use over a specified period of time, the City of Beaverton has requested an update letter indicating whether the recommendations in our report apply to the currently proposed development.

### **SCOPE OF WORK**

Our services were provided to determine whether current site conditions are relatively unchanged from those described in our geotechnical report prepared for the original development. We performed the following scope of services.

### **Geotechnical Report Review**

PBS reviewed the previously prepared geotechnical engineering report, including exploration logs, analyses, and lab testing for the original development.

### **Site Reconnaissance**

PBS completed a site reconnaissance to determine whether the site had been modified since the original geotechnical services were provided in 2019.

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<sup>1</sup> PBS Engineering and Environmental Inc. (February 15, 2019). Geotechnical Engineering Report, Scholls Ferry Road Residential Development, 15584 Scholls Ferry Road, Beaverton, Oregon. Prepared for Scholls Development LLC. PBS Project 74029.000.

**Deliverable**

PBS prepared this letter to describe current site conditions and discuss whether the original recommendations provided in our geotechnical report are applicable to current, similar development plans, or if additional exploration or evaluation is recommended.

**EXISTING SITE CONDITIONS**

PBS completed a site reconnaissance on June 1, 2022, to observe site conditions and ascertain whether any site modifications, such as grading, areas of instability, or surface erosion exist. In general, site conditions remain unchanged from when the geotechnical engineering report was prepared.

**PLAN REVIEW**

PBS reviewed sheets 3, 4.1, 4.2, and 5 from the plan set prepared by Pacific Community Design dated 3/23/2022. Current plans include construction of two structures: Building 1 on the north side of the site and Building 2 in the eastern-central portion of the site. Both structures will be five stories, including ground-level to partially embedded parking beneath four stories of residential living space.

Site grading includes cuts of up to approximately 8 feet to the north, for Building 1, and fills of approximately 8 feet to the south. Retaining walls of approximately 10 feet are planned to support the southern edge of the fill. Cuts will likely be supported by the parking-level building/retaining walls.

The following items vary from what the preliminary development plans included when our report was prepared.

**Table 1. Comparison of Project Scope, 2019 and 2022**

<b>Preliminary Plans – 2019</b>	<b>Current Plans – 2022</b>
Three, 4-Story Structures	Two, 5-Story Structures
Cuts of less than 5 feet	Cuts of approximately 8 feet
Fills of less than 5 feet	Fills of approximately 8 feet

**CONCLUSIONS**

Based on our observations, the existing site conditions appear to be consistent with the conditions observed and referenced in our 2019 report. If the estimated structure loads provided in the geotechnical engineering report (300 kips for columns, 5 kips per linear foot for walls, and less than 250 psf for floors) are equal to or less than the loads for the currently proposed structures (must be confirmed by the project structural engineer of record), no additional geotechnical-related analyses are required. All future development should be designed and constructed in accordance with the recommendations provided in the original geotechnical engineering report for the project and the updated recommendations provided in this letter. If any fill or unsuitable materials are observed (undocumented fill, construction debris), it should be removed to expose firm, native soil.

**RECOMMENDATIONS**

**Seismic Design Criteria**

Updates to the building code have occurred since PBS completed the geotechnical engineering report in 2019. The client should check with the permitting agency to determine whether the project needs to meet current requirements. The seismic design criteria, in accordance with the 2019 Oregon Structural Specialty Code (OSSC) are summarized in Table 2.

**Table 2. 2019 OSSC Seismic Design Parameters**

Parameter	Short Period	1 Second
Maximum Credible Earthquake Spectral Acceleration	$S_s = 0.85 \text{ g}$	$S_1 = 0.40 \text{ g}$
Site Class	D	
Site Coefficient	$F_a = 1.2$	$F_v = 1.9^*$
Adjusted Spectral Acceleration	$S_{MS} = 1.02 \text{ g}$	$S_{M1} = **$
Design Spectral Response Acceleration Parameters	$S_{DS} = 0.68 \text{ g}$	$S_{D1} = **$
$MCE_G$ Peak Ground Acceleration	PGA = 0.39 g	
Site Amplification Factor at PGA	$F_{PGA} = 1.21$	
Site Modified Peak Ground Acceleration	PGA <sub>M</sub> = 0.47 g	

g= Acceleration due to gravity

\* This value of  $F_v$  shall only be used to calculate  $T_s$

\*\* Site-specific site response analysis is not required for structures on Site Class D sites with  $S_1$  greater than or equal to 0.2, provided the value of the seismic response coefficient  $C_s$  is determined by Eq. (12.8-2) for values of  $T \leq 1.5T_s$  and taken as equal to 1.5 times the value computed in accordance with either Eq. (12.8-3) for  $T_L \geq T > 1.5T_s$  or Eq. (12.8-4) for  $T > T_L$ .

**Additional Services**

Future development plans and construction specifications should be reviewed by PBS for conformance with the geotechnical recommendations for site development. Additionally, geotechnical-related aspects of construction, such as footing, slab, retaining wall, and pavement subgrades, and preparation of structural fill and backfill, should be observed/tested by a representative of PBS during construction.

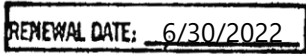
**LIMITATIONS**

The limitations of the geotechnical engineering report for the project apply to the information contained in this report. Our opinion regarding use of the previous geotechnical engineering report for design is subject to observation during construction to evaluate foundation, slab, and pavement subgrades. We strongly suggest PBS have the opportunity to confirm subsurface conditions encountered during construction are consistent with those documented in our geotechnical report.

**CLOSING**

We trust this letter meets your current needs. Please contact me at 503.539.5028 or [Ryan.White@pbsusa.com](mailto:Ryan.White@pbsusa.com) with any questions or comments.

Sincerely,



Ryan White, PE, GE  
Principal Geotechnical Engineer  
PBS Engineering and Environmental Inc.

RW:SB:rg