

Project #Y234666

February 10, 2022

**To: Mr. Charles Herman**

**Subject: Plan Review for Proposed Retaining Wall  
Tax Lot 2801, Map 07-11-22CD  
2808 SW Anchor Court  
Lincoln City, Lincoln County, Oregon**

**Dear Mr. Herman:**

As requested, H.G. Schlicker and Associates, Inc. (HGSA) have reviewed the provided plans for the proposed free-standing retaining wall at the subject site. The plans consist of 1 site plan, dated 12/20/2022, prepared by Coast Drafting & Design and 6 structural design and calculation sheets, dated DEC 2022, prepared by Cascade Design Group, Inc., which were received in HGSA's office on January 12, 2023. The purpose of our review was to determine if the plans conform with the recommendations provided in our February 10, 2023, Geologic Hazards and Geotechnical Investigation Report for Retaining Wall (HGSA #Y234666).

Based on our review, the provided plan set is in general conformance with our recommendations, with the following exceptions:

- 1) Sheet 1 of the structural design plans does not provide specifications for the gravel backfill behind the proposed wall. We recommend that imported free-draining granular backfill for walls should be placed in 8-inch horizontal lifts and machine compacted to 95 percent of the maximum dry density as determined by ASTM D1557. Compaction within 2 feet of the wall should be accomplished with lightweight hand-operated compaction equipment to avoid applying additional lateral pressure on the walls. Drainage of the retaining wall should consist of slotted drains placed at the base of the wall on the backfilled side and backfilled with free-draining crushed rock (less than 5% passing the 200 mesh sieve using a washed sieve method) protected by non-woven filter fabric (Mirafi® 140N, or equivalent) placed between the native soil and the backfill. Filter fabric protected free-draining crushed rock should extend to within 2 feet of the ground surface behind the wall, and the filter fabric should be overlapped at the top per the manufacturer's recommendations. All walls should be fully drained to prevent the build-up of hydrostatic pressures.

- 2) Sheet 1 of the structural plans indicates that the toe of the wall footing is designed to be embedded; however, the embedment depth is not specified. During our site visit, we observed that concrete forms for the new wall footing were present at the base of the temporary cut slope. These forms did not appear to be embedded into native sandy soils. We recommend that all retaining walls should have a minimum of 2 feet of embedment at the toe or be designed without passive resistance. We recommend that the contractor should consult with the project's structural engineer to determine the appropriate embedment depth of the footing.
  
- 3) A tiered west facing block wall is present on the property to the south, near the southwest portion of the proposed retaining wall. It is unclear from the plan set if this existing wall and the proposed new wall are designed to be structurally connected. The presence of this existing wall may generate an additional minor surcharge load on adjacent portion of the proposed wall, however we defer to the project's structural engineer for consideration of this potential issue.

Lincoln City may require a topographic survey performed by a licensed land surveyor to identify the bluff edge and determine the bluff setback's location. However, the location of the proposed wall appears to be well east of our recommended setback.

A representative of HGSA will need to observe and approve footing excavations prior to placing fill, forming or pouring concrete. Please provide us with 5 days' notice prior to the needed observations. If you have any questions concerning this letter or the site, please contact us.

Respectfully submitted,

**H.G. SCHLICKER AND ASSOCIATES, INC.**



Adam M. Large, MSc, RG, CEG  
President/Principal Engineering Geologist

AML:mgb