

TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology and Environmental Earth Sciences

> March 12, 2021 Project No. T-6504-1

Mr. Sean Northrop Trailside Homes 116 1/2 South Washington Street Seattle, Washington 98104

Subject: Geotechnical Plan Review

City Heights Phase 1 (Pods B7 and C)

Cle Elum, Washington

Reference: Geotechnical Report, City Heights, Cle Elum, Washington, prepared by Terra Associates, Inc.,

Project No. T-6504-1, dated June 9, 2020

Dear Mr. Northrop:

As requested, we have completed a geotechnical engineering review of plans detailing grading and infrastructure improvements for the subject project. The purpose of our review was to verify that relevant geotechnical engineering recommendations outlined in the referenced report were followed in plans preparation. Plans reviewed were prepared by Blueline and included civil sheets 9, 10, 13, 14, 20, 31, 32 & 33 of 42, dated March 10, 2021.

The plans indicate phase 1 will consist of grading and infrastructure improvements for 68 residential building lots. Summit View Drive will extend to the northwest from the intersection of Reed and Sixth Street with local access roads branching off to the west and east. Grading to establish the roadway grades are relatively minor with maximum cuts and fills generally ten feet and less. The exception to this occurs at the location of a pedestrian overpass bridge near station 8+50 on Summit View Drive. In order to get the necessary clearance bridge abutment, fill on the west side of the roadway will approach 15 feet. In addition, a single arch bottomless culvert will be installed to at station 10+00 on Summit View to span across a critical areas stream. Wing walls at the bridge and culvert crossings will be constructed using geogrid reinforced fill face with precast concrete block units. Grade transitions on other areas of the roadways will be accommodated by 2:1 (horizontal: vertical) sloped embankments and rockery walls.

Development stormwater will be routed to a detention pond located in the western site area south of building lots 48 to 53 and to a stormwater detention vault located in the eastern site area northwest of the intersection of Summit View and Sixth Street. The pond will be formed mainly by excavation with a maximum cut depth of about 6 to 8 feet. The down gradient containment berm will be constructed by a combination of cut and embankment fill. Pond slopes are shown graded at 3:1. Details of the stormwater vault were not provided; however, we understand the vault bottom will be about 20 feet below the current site grades.

The plan sheets also include geotechnical notes referencing our June 9, 2020 geotechnical report and requirements for slope setbacks. A note on sheet 9 of 42 also identifies a steep slope on the back of lots 9 through 16 that we have identified as being an existing fill slope that may need to be excavated and rebuilt to provide stable conditions for building construction. A similar existing fill slope appears to be present on Road D from between station 144+00 and 146+00. Test pit TP-11 excavated in this vicinity found loose fill that appears to be tailings composed of siltstone and coal fragments to a depth of ten feet. Excavation and replacement of this fill will be required to establish suitable support for the roadway and planned utilities.

Based on our review, we conclude that relevant geotechnical engineering recommendations outlined in the referenced report were included in preparation of the Blueline plans. With grading completed in accordance with the plans and with engineered retaining walls and properly sloped embankments accommodating proposed grade transitions, development of the site would not adversely impact current site stability and post development slopes would be stable.

We trust the information presented is sufficient for your current needs. If you have any questions or require additional unformation please call.

Sincerely yours

TERRA ASSOCIATES, INC

3/12/2021

Principal C

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cc:

Mr. Brett Pudists, Blueline