

COLORADO GEOLOGICAL SURVEY

1801 Moly Road
Golden, Colorado 80401



Karen Berry
State Geologist

March 20, 2019

Nina Ruiz
El Paso County
Planning and Community Development
2880 International Circle
Colorado Springs, CO 80910

Location:
W½ Section 9,
T15S, R65W of the 6th P.M.
38.7562, -104.6777

**Subject: Trails at Aspen Ridge PUDSP191 (previously reviewed as Springs East at Waterview SP-17-010)
El Paso County, CO; CGS Unique No. EP-18-0011 4**

Dear Ms. Ruiz:

Colorado Geological Survey has reviewed the Trails at Aspen Ridge combined PUD/preliminary plan referral. I understand the applicant currently proposes 516 SF residential lots on 118 acres located southeast of S. Powers Blvd. and Bradley Road, east of Security-Widefield.

The available referral documents include:

- Trails at Aspen Ridge Letter of Intent (February 13, 2019),
- Soil, Geology, and Geologic Hazard, Springs at Waterview East (Entech Engineering, Inc., revised February 8, 2019),
- Set of ten Trails at Aspen Ridge Grading and Erosion Control Plans (Matrix Design Group/Stantec, February 2019),
- and other documents.

CGS previously reviewed the Springs East at Waterview development, and two previous versions of Entech's Soil, Geology, and Geologic Hazard report (4/25/2017 and 2/21/2018). Entech's revised (2/8/2019) report contains an updated lot layout but is otherwise unchanged from the 2/21/2018 version.

Entech's ten borings were drilled to a depth of 20 feet. The Trails at Aspen Ridge Grading and Erosion Control Plans indicate that significant cuts and fills are planned. Cuts of approximately 15 feet are proposed in the area of Entech's borings TB-1 in the northeastern area of the site, and TB-5, in the southwestern area of the site, so Entech's borings extend only five feet below proposed grade in these areas, and do not extend to sufficient depths to provide meaningful information about soil and bedrock engineering properties and groundwater levels.

As noted in CGS's 11/28/2017 review letter, **additional investigation, sampling, testing and analysis are needed in proposed cut areas, based on the project grading plans**, to characterize subsurface conditions, determine depth and extent of overexcavation, if overexcavation is planned to reduce the use of drilled pier foundations, and to determine basement feasibility where Entech's borings did not extend to sufficient depth below planned basement floor and foundation bearing depths.

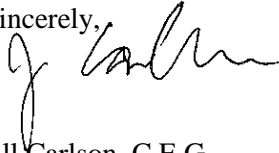
Entech states (page 7) "Overexcavation depths of 4 to 6 feet are anticipated for the site." This means 4 to 6 feet below foundation bearing elevations. For a development of the proposed density, overexcavation should

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be performed over the entire area within a specific construction phase determined to require overexcavation, at the grading phase of development, before wet utilities are installed. In areas of expansive soils, significant cuts and/or shallow claystone bedrock, roads will require overexcavation as well.

Thank you for the opportunity to review and comment on this project. If you have questions or require additional review, please call me at (303) 384-2643, or e-mail carlson@mines.edu.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jill Carlson', written over a horizontal line.

Jill Carlson, C.E.G.
Engineering Geologist