



Circeo
Geotechnical
Engineering, P.C.

Geotechnical Explorations - Foundation Explorations - Retaining Wall Design

CIRCEO GEOTECH

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July 19, 2017

Winn Bishop
Senior VP of Development and Construction
Smith/Packett Med-Com, LLC
4423 Pheasant Ridge Road, Suite 301
Roanoke, Virginia 24014

Re: Engineering Report
South Peak - Wall 3 & Wall 4
Roanoke County, Virginia
CGE Project No. RW-950

Dear Winn:

As a follow up to the site visit on July 18, 2017, I have evaluated the condition of the segmental retaining wall after the missing SRW unit (block) was observed at the convergence of Wall 3 and Wall 4 at South Peak. The missing block was located from a portion of the wall where the two (2) walls converged, forming a bulge below Wall 3 at Sta. 306+70 to Sta. 306+76 and Wall 4, Sta. 400+00 to Sta. 400+06. Similar conditions were observed in a previous site visit on October 5, 2015. The missing block has dislodged, but the courses above have bridged the opening with minimal loss of stone. No signs of settlement or structural distress were observed in the wall face and the roadway behind the wall remains intact.

While the condition of the segmental retaining wall remains stable, I believe that corrective action should be taken to ensure that no additional blocks will dislodge resulting in loss of foundation support at the location of convergence. In order to maintain the integrity of the wall facing and foundation support and prevent future loss of stone, the area above and below the missing block should be grouted to fill the voids of the stone. The grout should consist of a flowable, high strength cement and should be grouted three (3) courses above the missing block and three (3) courses below the missing block, covering an area of approximately 50 square feet.

After the grout has cured with a minimum compressive strength of 3,000 psi, the SRW units can be removed (sawcut) and replaced and new block installed.

Let me know if you have questions.

CIRCEO GEOTECHNICAL ENGINEERING, P.C.

Michael R. Circeo, P.E.
President

