



April 29, 2021

Vertical Walls, Inc.
612 West Lane Street
Raleigh, North Carolina 27603

Attention: Mr. Ashley Linton

**Report of Retaining Wall Special Inspections
Carriage Glen at Anderson Creek
Glenwood Court
Spring Lake, North Carolina
Marvel Project No. 20-10480**

Ladies and Gentlemen:

As requested, Marvel Engineering and Consulting has performed evaluations regarding the construction of segmental Retaining Wall No. 1 through No. 4 at the above referenced property. The purpose of our evaluation was to determine if the segmental retaining walls were constructed in general accordance with our Retaining Wall Construction Documents dated September 18, 2020. Our scope of services included a review of special inspection testing information provided by others that was performed during construction of the retaining walls, and performing site visits to make observations of the overall condition of the retaining walls and surrounding areas. A discussion of our observations and evaluations are provided herein.

We have reviewed the April 26, 2021 *Special Inspection Substantial Completion* letter provided by ECS Southeast, LLP. that indicates their representatives were periodically present to perform special inspection testing services during construction of the retaining walls. Our evaluation of the construction of the retaining walls relies in large part on the information provided by ECS Southeast, LLP. In summary, there were no deficiencies noted in their letter. A copy of their letter is attached.

During our visit to the site, we observed that the retaining walls appeared to be in good condition, with no obvious deviations from the retaining wall plans or visual defects in workmanship. The height of the retaining walls were measured at random stations, and complied with the design profiles provided in the Retaining Wall Construction Documents. We observed that the specified drainage outlet pipes were visible through the wall faces, and spaced in general accordance with the retaining wall details. The specified type of block, installed with the appropriate batter, was used in the construction of the retaining walls. Additionally, at the time of our final site visit, the retaining wall caps had been installed, and found to be secured at random locations.

Based on our site observations, it is my professional judgment that, to the best of my knowledge and belief, Retaining Wall No. 1 through No. 4 have been constructed in general accordance with our Retaining Wall Construction Documents dated September 18, 2020.



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We appreciate being of service to you on this project. If you have any questions concerning this information, please contact us.

Sincerely,
Marvel Engineering and Consulting, PLLC
Firm License No. P-1332

Brian D. Hall, P.E
Principal Engineer

Attachment





ECS SOUTHEAST, LLP

Geotechnical • Construction Materials • Environmental • Facilities

"Setting the Standard for Service"

NC Registered Engineering Firm F-1078
NC Registered Geologists Firm C-406
SC Registered Engineering Firm 3245

April 26, 2021

Mr. Michael Kaney
Mika Management Solutions, LLC
1820 French Drive
Raleigh, North Carolina 27612

Reference: Retaining Walls 1-4 – Special Inspections Substantial Completion
Carriage Glen at Anderson Creek
Glenwood Court
Spring Lake, North Carolina 28390
ECS Project No. 33.5382

Dear Mr. Kaney,

ECS Southeast, LLP (ECS) provided construction materials testing and special inspections for the additional development at the Carriage Glen at Anderson Creek subdivision located on Glennwood Court. Testing services have been provided since October 22, 2020, in general accordance with ECS Proposal No. 33.4621P, dated October 21, 2020.

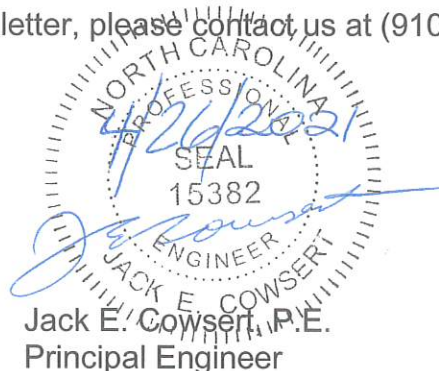
The purpose of this letter is to state to the Owner, the Architect of Record and the Engineer of Record that, to the best of our knowledge, the construction of the above stated structure on the above referenced project has been completed in substantial conformance with the approved contract documents for materials testing services. In the capacity of the Owner's testing and inspection agency, periodic reports have been issued. Those reports document all of the on-site observation and testing that has been performed. Work requiring observation was, to the best of the technician's knowledge, in conformance with the approved plans, and specifications. Our testing and observation services consisted of foundation bearing observations of excavated foundations for the wall, observations of drainage system and the compaction testing of structural backfill for the retaining wall.

If you have any questions after reviewing this letter, please contact us at (910) 401-3288.

Respectfully Submitted,

ECS SOUTHEAST, LLP


Ryan Parrish
CMT Project Manager


Jack E. Cowsert, P.E.
Principal Engineer