



321 W. Henrietta Ave
Suite A
Woodlan Park, CO 80814

April 26, 2024

El Paso County
Department of Public Works
3275 Akers Drive
Colorado Springs, CO 80922

The permanent stormwater Best Management Practices (BMPs) for The Villas at Claremont Ranch consist of development of a full spectrum extended detention basin located in the northern portion of the subdivision adjacent to Sand Creek. The pond requires 0.139 acre-feet of water quality capture volume and a total (100-YR) volume of 0.760 acre-ft. Catamount Engineering has reviewed the as-built survey of pond, and outlet structure prepared by M&S Land Surveys and performed field measurements of structures. The as-built drawings indicated that the overall pond volume, the pond inlet, and outlet structures were constructed in general conformance with the approved design.

Deviations-

- The approved plans indicated an emergency overflow width of 20'. The emergency overflow was constructed 16' wide with required 4:1 side slopes. The 16' spillway width raises the water surface of the fully plugged overflow condition by 0.04' and adequate berm height exists to maintain the 1.0' freeboard required. The increase in unit flow will not change sizing of required buried riprap.
- The trickle channel was revised to a 1.0' width x 6" deep trapezoidal channel vs. the inverted crown design in the original plan. The original alignment was utilized and the trapezoidal channel was installed at a longitudinal slope of 0.5%. The trickle channel enters the micropool below the lip of the structure (initial surcharge volume) but above the micropool outfall depth.
- The pond outfall location was revised to eliminate crossing of CSU water transmission mains. The outfall maintains configuration of initial design outfalling 1.0' above the toe of the channel bank to a riprap energy dissipator that maintains positive grade in excess of 2.0% to the top of the defined low flow channel in the center of the creek.

Based upon this information and information gathered during periodic site visits to the project during significant/key phases of the stormwater BMP installation, Catamount Engineering is of the opinion that the stormwater BMPs have been constructed in general compliance with the approved Erosion and Stormwater Quality Control Plan, Construction Plans, and Specifications as filed with the City.

Statement Of Engineer In Responsible Charge:

I, David Mijares a registered Professional Engineer in the State of Colorado, in accordance with Sections 5.2 and 5.3 of the Bylaws and Rules of the State Board of Registration for Professional Engineers and Professional Land Surveyors, do hereby certify that I or a person under my responsible charge periodically observed the construction of the above mentioned project.

Based on the on-site field observations and review of pertinent documentation, it is my professional opinion that the required permanent BMPs have been installed and are in general compliance with the approved Erosion and Stormwater Quality Control Plan, Construction Plans, and Specifications as filed with El Paso County.

Respectfully Submitted,

David L. Mijares, PE
Colorado PE 40510

