



June 8, 2023

J. Kevin Moore
Moore, Ingram, Johnson & Steele, LLP
326 Roswell Street, Suite 100
Marietta, Georgia 30060

Re: Westpark Place Detention Variance

Dear Mr. Moore:

We designed the site using a Detention scenario and a No-Detention scenario. The Detention scenario results in a rise in the floodplain downstream of between 0.04' to 0.07'. The No-Detention scenario results in a rise of the floodplain between 0.01' to 0.02'. The timing of the hydrographs between the site outflow and the main creek flow is what causes the rises in the floodplain. The No-Detention scenario results in the least amount of rise and is why we are seeking the variance.

The rise in floodplain for the No-Detention scenario is between 0.12" and 0.24". The width of the floodplain in these areas is averaging approximately 180' which increases the overall channel volume area by approximately 1 to 2 sf and the velocities by 0.01 to 0.02 fps over that width. Using the Detention scenario will increase the channel flow area by approximately 5 to 8 square feet and the velocities by 0.05 to 0.07 fps.

Again, using the No-Detention scenario results in the least amount of rise in the downstream floodplain (0.12"- 0.24") and is within the tolerances used by the U.S. Army Corps of Engineers program which is used to establish floodplain elevations and will result in an unperceivable rise in the floodplain downstream and cause no adverse impacts.

Sincerely,

John R. Morgan, P.E.
Project Engineer