

July 15, 2020

Daniel Torres Lindsay Darden El Paso County 2880 International Cir. Colorado Springs, CO 80910

Legacy Church - Green Mountain Falls: Drainage Revision Memo

Daniel/Lindsay,

Thank you for discussing the minor changes associated with the Legacy Church – Green Mountain Falls project. The intent of this memo is to discuss the minor revisions made to the site plan and erosion control plan (which will be uploaded in concurrence with this letter), as well as to confirm the adequacy of the current storm sewer and detention pond systems with these revisions.

- The layout of the curb/gutter in a section near the rear of the building has been revised to account for the removal of an existing ground mounted HVAC system. From this change, the net impervious area change was around 20 SF, which would not significantly impact the detention pond system.
- 2. With the addition of the RTU pad along the northeast side of the building, the sidewalk shifted as well as some parking spaces and islands. After this shift, the proposed site plan includes 117 spots (with 106 as the required minimum). This is sufficient from a code perspective.
- 3. All ADA stalls have been relocated to a common location along the north side of the building, which will not adversely affect parking counts or detention pond design.
- 4. Curb and gutter has been added along the drive aisle at the bottom of the proposed staircase on the south side of the Site. This does not adversely affect the drainage patterns for this basin.
- 5. The proposed trash enclosure on the west of the building has been shifted slightly for constructability purposes. With this shift, a 4' concrete crosspan was added to ensure flows do not enter the building and follow existing drainage patterns. An additional 4' concrete crosspan was also added in the northeast drive aisle for the same reasons. All flows are directed to the approved design points and do not add any additional impervious flows.
- 6. Pipes called out as 18" RCP on site has been updated to read 18" HDPE. These updates were made for cost and constructability purposes. These pipe changes do not adversely affect the proposed detention pond and storm design. Additionally, the change in piping will remain adequate for the developed/designed flows on-site.

Additionally, it should be acknowledged that the east detention pond is approximately 50% oversized for the required 100-year detention volume. The pond is oversized due to the grading constraints associated with the required depth of the pond due to the existing pipe outfall elevations. If there are concerns over increased flow capacity, they will be easily captured in this additional storage volume.



As designed, the ponds meet all required release rates. With the expansion of a parking island in the rear of the building along the north side of the Site, the overall net impervious area was reduced. Overall, the pond and storm sewer systems are adequate and will operate as designed with the above changes taken into account.

Please contact me at (719) 453-0180 or eric.gunderson@kimley-horn.com should you have any questions.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Eric Gunderson

Eric Gunderson P.E. Project Manager