



April 22, 2022

Gene Williams, PE
City of Lee's Summit Development Services
220 SE Green Street
Lee's Summit, MO 64063

**RE: PL2022-051 - THE RETREAT AT BAILEY FARMS, 1ST PLAT
PUBLIC STREETS, STORM SEWER & MASTER DRAINAGE PLANS
COMMENTS DATED FEBRUARY 25, 2022**

This letter is regarding the above-referenced comments to which we have the following responses:

Engineering Review

1. A stormwater memorandum is required. It shall document this phase and other phases of the overall development and perhaps reference the overall stormwater report. Please provide a signed and sealed stormwater memorandum.
Response: Included with submittal
2. Sheet 3: A callout for an overflow swale is shown, yet the contour lines do not reflect a swale being installed. Please revise this sheet in this area to reflect the installation of an overflow swale at B-B, and also include additional cross-sections along this emergency overflow route. Finally, profile views of each cross section are required. Generic cross-sections as depicted on this sheet are not sufficient. Please revise.
Response: Surface has been updated with swale grading, callouts, and info tables. Please see Swale Grading Plan, sheet 3.
3. Sheet 3: Additional cross-sections are required to denote the location of the swale A-A. these shall be placed at key locations, at the beginning, end, and selected intervals along the swale. Graphic representation of each cross-section is required. Generic cross-section profile views are not sufficient. Please revise.
Response: Please refer to sheet 3.
4. Sheet 3: MBOE designation was missing on the table. Please see guidance provided on previous project (e.g., The Manor at Bailey Farms 1st Plat) concerning MBOE designation for lots. At present, it is unclear whether the underground system is capable of managing the 100-year event since HGL was

not provided. MBOEs shall be established for all lots adjacent to emergency overflow swales, swales, or other features if the underground system is unable to meet the criteria sent previously. Please revise.

Response: MBOE table on sheet 3.

5. Sheet 3: The table was missing the lots requiring an “as-graded” lot plan. Please revise.

Response: MBOE table on sheet 3.

6. Sheet 3: It appears a swale is being constructed along the eastern boundary of the project in Tract A. No cross-section callouts were provided, nor were any profile views of the cross-section callouts provided, nor any calculations of the hydraulics within the swale. Please revise as appropriate.

Response: A swale is not planned for this area. Grading has been updated.

7. Sheet 6: Geometry is acceptable, but not reviewed due to lack of any details. Please be aware that “wings” on ADA-accessible ramps are not allowed in the City of Lee’s Summit. Grading shall be required at no more than 3 to 1 slope to the ramp. Please provide a complete plan for the ADA-accessible ramps. Ensure all elevation callouts, running slope callouts, and cross-slope callouts are provided on the ADA-accessible ramps.

Response: No wings on sidewalk ramps. Intersection Details updated.

8. There was no indication in the plans concerning the start and stop point of sidewalk construction. All ADA-accessible ramps shall be shown to be constructed with these improvements, and all sidewalk along unplatted property and common area tracts shall be constructed with these improvements. Provide sufficient notes showing the exact start and stop points for construction of ADA-accessible ramps and sidewalk.

Response: Sidewalk ramp construction limits placed on Intersection Detail sheet.

9. Sidewalk north of Lot 24 shall be constructed along with these improvements since it is located along unplatted property. Please see above comment concerning the placement of notes and symbols to delineate the start and stop point of all sidewalk construction.

Response: Revised

10. Sheet 10: HGL for the design storm was not provided on the profile views. Recommend the 10-year event be at or below the crown of pipe, and the 100-year event at least 0.5 feet below any opening. If the underground system cannot manage the 100-year event without surcharging (as defined as being less than 0.5 feet below any opening such as a throat in a curb inlet or field inlet), then an emergency overflow swale shall be required. Please be aware that emergency overflow swales are still suggested even if this criteria is met. Please revise as appropriate.

Response: HGLs added to sheets.

11. Sheet 11: Asphaltic concrete pavement type was missing. Please see Design and Construction Manual for specific choices, and revise as appropriate.

Response: Pavement type added.

12. It would appear an underground storm system is warranted along Ranson Rd. to eliminate the swale within Tract A. Please analyze and revise as appropriate. Ensure appropriate easements are dedicated on the plat and shown on the plans.

Response: Grading updated.

13. It would appear additional underground stormwater system is warranted within the rear of the lots north of Windbreak Dr. Please analyze and revise as appropriate. Additional easements along the rear of these lots is also warranted to place the public storm lines and field inlets within the rear lots. Ensure this is carried-through to the plat.

Response: Grading updated.

In order to calculate the Engineering Plan Review and Inspection Fee, a sealed Engineer's Opinion of Probable Construction Costs shall accompany your final submittal copies. The itemized estimate (material and installation) shall be sufficiently broken down and shall include the following items, as applicable.

- Public infrastructure, both onsite and offsite.
- Private street construction, including parking lots and driveways.
- Sidewalks located within the right-of-way.
- ADA accessible ramps.
- Sanitary sewer manholes and piping between manholes, including private mains.
- Connection of the building sanitary sewer stub to the public mains.
- Waterlines larger than 2 inches in diameter, valves, hydrants, and backflow preventer with vault, if outside the building.
- Stormwater piping greater than 6 inches in diameter, structures, and detention / retention facilities – public or private.
- Water quality features installed to meet the 40-hour extended duration detention requirements.
- Grading for detention / retention ponds.
- Grading to establish proper site drainage.
- Utility infrastructure adjustments to finished grade (i.e. manhole lids, water valves, etc.).
- Erosion and sediment control devices required for construction.
- Re-vegetation and other post-construction erosion and sediment control activities.

Response: Included with submittal.

Should you have additional comments/questions, please contact me. Thank you.

Sincerely,

SCHLAGEL & ASSOCIATES, P.A.

Jim Long, PE

Sr. Project Engineer

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Attachments