January 8, 2024

City of Lee's Summit, Missouri
Attn: Scott Ready
220 SE Green Street
Lee's Summit, MO 64063

RE: Longview Mansion – Parking Lot Addition PDP
PL2023291

We are responding to your comments dated December 19, 2023. Please find the original comments below; our responses are below in bold italics.

If you have any questions or need additional information, please do not hesitate to contact us.

Thanks,

Chris Holmquist

Planning Review

1. Staff has concerns with placing a light pole in the middle of the parking lot as proposed. This is a hazard to vehicles and diminishes the overall usefulness of parking stall. Can light coverage be accomplished by removing this pole and utilizing double light heads on the other two light poles? This would be staffs preferred method.
   Three light poles are needed for necessary lighting levels. Two parking stalls have been converted to a landscape island where the third pole is now located.

Engineering Review

1. The results of the stormwater study show the culvert at the road crossing immediately downstream of the project is not capable of managing the 10 year event without overtopping in either the existing condition or the proposed condition. The results of the stormwater study appear to show the flooding situation becomes worse. This fact by itself, I cannot support any waiver to stormwater detention for this site.
   An additional culvert, sized to accommodate additional stormwater and match existing conditions, is proposed under the County Park Road.

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2. The stormwater study appears to imply the downstream culvert is acting as the outlet structure of a detention basin. None of the design parameters of this detention basin appear to meet any of the requirements in terms of freeboard, emergency spillway, storage volume, or release rates. Therefore, I do not consider this culvert as an outlet structure, nor do I consider the area upstream of this culvert a dry detention basin.
   The model was created to show the real effects of a storm event at the culvert. Although the low area of the culvert is not designed to be a basin, the low area retains stormwater during 10- and 100-year storms. Since the low area is not a basin and was not intended to be one, it will not have freeboard, a spillway, dam, etc.

3. There may be an opportunity to consider waiving detention for this project if downstream improvements are made to the existing culvert crossing. This would include the removal and replacement with a suitable culvert across the road crossing. Please be aware coordination would be needed between the County and your firm.
   See response to Engineering Review comment #1.

4. It appears the rain gardens were deleted from the preliminary design, and were replaced by a series of 5.5 foot wide infiltration trenches around the perimeter of the parking lot. Based on the contours provided, it does not appear stormwater will enter the infiltration trench, but rather, will sheet flow across the trench and continue on its way down the 3:1 slope. If an infiltration trench is being proposed, suitable grading plan shall be provided which shows how the stormwater will be able to enter the trench, and be absorbed by the trench. I see no practical way how this can be achieved unless the infiltration trench is expanded in width, subgrade design, and embankment fill around the trench to force the stormwater to stand within the infiltration trench so that subsequent infiltration can occur.
   Details of the infiltration trench have been provided on Sheet C300. Stormwater will enter the trench via curb cuts in the parking lot and percolate through the surface rock. Stormwater will not flow over the surface of the trench unless/until it has reached capacity. Water will not be stored above the surface of the infiltration trench, therefore embankment above the surface elevation is not necessary. Any embankment holding water above the surface of the infiltration trench would pool water onto the parking lot surface.

5. Has there been any consideration to construction of pervious pavement? This by itself would negate the necessity of detention waivers, downstream improvements, and water quality measures constructed around the periphery of the parking lot.
   Pervious pavement is not proposed at this time.