

Date: Friday, July 12, 2019

To: SCHLAGEL & ASSOCIATES
Mark Breuer, P.E.
14920 W 107TH ST
LENEXA, KS 66215

From: Gene Williams, P.E.
Senior Staff Engineer

Application Number: PL2019078

Application Type: Engineering Plan Review

Application Name: Winterset Valley 13th Plat - Street, Storm, MDP, and ESC

The Development Services Department received plans for this project on Jun. 26, 2019. We have completed our review and offer the following comments listed below.

- Resubmit three (3) full size sets of plans (no larger than 24"x36") folded to 8-½"x11", one (1) comment response letter, and one (1) digital copy following the electronic plan submittal guides as stated below.
- Revised plans will be reviewed within ten (10) business days of the date received.

Engineering Review Corrections

1. The "Final Stormwater Management Plan" dated June 5, 2019 (hereinafter referred to as "the stormwater report") discusses on Page 2-1 that cover types were considered to be a pasture in poor condition. Although curve numbers were adjusted downward based on subsequent tables within the report, it appears this comment was never removed from the report.
2. The stormwater report used a composite curve number of 80 for the pre-developed condition. While we agree this curve number may be representative of soil group D, it does not appear that any relevance of soil group C was considered. We agree that the majority of the site is soil group D, but there appears to be no consideration for the small area of soil group C. It would appear the pre-development curve number should be adjusted downward slightly.
3. The stormwater report still shows the same time of concentration of 21.4 minutes for the pre-developed condition. Previous comments contained in the April 10th applicant letter questioned the validity of this time of concentration value. It appears low for the pre-developed condition.
4. While we will support the pre-development versus post-development analysis for the waiver request, we will not support elimination of the 50% and 10% storm events. It was our understanding that any waiver request to the flat release rate would be substituted by a pre-development versus post-development peak flow rate analysis for the 1%, 10%, and 50% events, as well as the 90% mean annual storm event.

5. Page 3-3 of the stormwater report presents Table 3-3. Table 3-3 presents what appears to be an "emergency overflow water surface elevation" of 894.43, and 899.53 for the WQv storm, and the 100 year storm respectively. What is meant by this table? It does not appear to match anything shown within the appendix.
6. The stormwater report discusses 4-48 inch orifices on Page 3-3. Aren't these weirs?
7. Stormwater Report Appendix: 18-230 PROP ANALYSIS 1: the peak elevation of 895.44 is within 0.06 feet of the emergency spillway elevation, or at least that is what is shown on Sheet 18 (i.e., the top of the outlet structure is shown at 895.50, and is labeled as the emergency overflow). This does not comply with the minimum 0.50 feet between the nominal 1% storm event water surface elevation, and the crest of the emergency spillway.
8. Table 3-3 within the stormwater report presents the "Emergency Overflow Release" of 154.56 cfs for the 100 year storm, with the primary outlet elevation shown at 890.90. This would appear to be the location of the weirs described in the above comment. It was our understanding from the body of the report, and the plans, that the emergency overflow weir was on the top of the outlet structure, at a higher elevation (i.e., 895.50). Please reconcile what is being proposed both on the table, the body of the report, and the plans.
9. Revisions to the stormwater report, and plans would appear to be warranted based on the above comments.
10. Please refer to comment #2 of the previous applicant letter dated Apr. 10th. We had requested the 50% and 10% storm event calculations, but the response stated that it was your understanding that only the 1% storm event and the 90% annual mean event would be considered. We do not agree.
11. Please refer to comment #15 within the previous applicant letter. The location of the ADA-accessible ramps shown within the cul-de-sac bulbs is correct, but they need to terminate in a straight line (i.e., not at a right angle as shown). Please contact me if you need a sketch. If possible, attempt to locate these at the property line.
12. Please refer to comment #16 within the previous applicant letter. The 100 year water surface elevation is now shown at 894.47, but this does not agree with Sheet 18 of the plans, or the appendix contained within the stormwater report. Sheet 18 and the appendix show the 100 year water surface elevation at 895.44, while the Master Drainage Plan shows this elevation at 894.47.
13. It now appears the 100 year water surface elevation is too close to property lines. The City requires a minimum of 20 feet between the nominal 100 year water surface elevation, and any property line or building.

14. Please refer to comment #18 within the previous applicant letter. The City of Lee's Summit now requires an MBOE for each lot. This is specified in the Design and Construction Manual.
15. Please refer to comment #27 within the previous applicant letter. Although Sheet 17 now shows a scour basin, it is lacking essential information for a contractor and inspector to construct. The City requires a specific plan for the scour basin. This must be in a form that shows the width, depth, side slope, length, rock type, etc., in a clear and concise manner. As presented, only a portion of the information is provided, and a contractor and inspector are forced to look up the partial information by "table lookup". Missing variables include the width of the scour basin, any taper, plan view, etc.
16. As indicated in your response letter, a SWPPP is in progress, and will be submitted, as well as any USACE permits (if applicable).
17. Where is the clogged condition water surface elevation? Please discuss within the body of the stormwater report, and discuss any potential issues related to property damage due to flooding, or any roadway overtopping issues. Provide an engineer's opinion concerning the use of the nominal (i.e., unclogged condition) 100 year water surface elevation, or the clogged condition 100 year water surface elevation in relation to MBOEs, or property lines. Since there appears to be less than 20 feet from the property line of Lot 1474 and the nominal 100 year water surface elevation, would it be more appropriate to use the clogged condition 100 year water surface elevation?
18. Sheet 12: While the General Layout sheet shows sidewalk to be constructed along unplatted land, this specific sheet does not appear to show this. Please add appropriate notes.
19. Sheet 14 and 15: The cross-sections are generic rather than site specific. Cross-sections must be shown which provide the design cross-slope, running slope, width, and where sidewalk curb is or is not necessary (i.e., the generic detail provided on your plans states "sidewalk curb as necessary").
20. Sheet 14 and 15: Where are the locations of the truncated dome tactile warning strips? Please show their location, along with dimensions from the longest distance from the back of curb. This maximum distance is 5.0 feet.

Traffic Review

No Comments

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 main.
- 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.

Electronic Plans for Resubmittal

All Planning application and development engineering plan resubmittals shall include an electronic copy of the documents as well as the required number of paper copies.

Electronic copies shall be provided in the following formats

- Plats – All plats shall be provided in multi-page Portable Document Format (PDF).
- Engineered Civil Plans – All engineered civil plans shall be provided in multi-page Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).

Please contact me if you have any questions or comments.

Sincerely,

Original Signed

Gene Williams, P.E.
Senior Staff Engineer
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cc: Development Engineering Project File