

**Date:** Wednesday, September 18, 2019

**To:** SCHLAGEL & ASSOCIATES  
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

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The Development Services Department received plans for this project on Sept. 4, 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. Please refer to comment #5 of the previous applicant letter. The clogged condition analysis contained within the revised "Final Stormwater Management Plan" dated Aug. 23, 2019 is missing the "zero available storage" condition. It appears that only a clogged condition was evaluated, not the "zero available storage" condition. For instance, Page 4 of the clogged condition analysis within the appendix presents a table of cumulative storage that is less than the elevation of the emergency spillway. Since the "zero available storage" condition should have also been evaluated, anything less than the elevation of the emergency spillway should have been shown with zero cumulative storage. Finally, the discussion within the text of the report should also be updated to describe this additional requirement (i.e., "zero available storage") since it currently only describes the 100% clogged condition.
2. A 5 foot by 5 foot inside dimension outlet structure is not sufficiently wide enough to accommodate a 48 inch HDPE. It appears that wall thickness of the HDPE was not taken into account in the design. A minimum of 6 inches is required from the outside of the pipe, and the wall of the outlet structure.
3. Sheet 18: Please add a note on the profile view of the scour basin that shows: 1) the width of the scour basin bottom, and 2) the side slopes. Although a table is provided on Sheet 17, wouldn't it be better to call this out on the profile view, to avoid any confusion in the field?
4. It is likely the 48 inch HDPE is insufficient to manage the 100% clogged/zero available storage condition without significantly impacting adjacent properties. As indicated in previous comment letter (i.e.,

comment #6 and #7), increasing the pipe size is likely required, in addition to an increase in the outlet structure sizing to accommodate this larger pipe size.

5. Prior to formal approval of the plans, a copy of the MDNR land disturbance permit is required, as well as any USACE permits (if applicable).

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**

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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,

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