
DEVELOPMENT SERVICES

Date: Thursday, June 30, 2022

To: ENGINEERING SOLUTIONS
50 SE 30TH ST
LEES SUMMIT, MO 64082

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

Application Number: PL2021074

Application Type: Engineering Plan Review

Application Name: WOODLAND OAKS 1ST PLAT - PUBLIC LOW PRESSURE SANITARY SEWER
SYSTEM

The Development Services Department has completed its review of the above-referenced plans dated Jun. 14, 2022 and offer the following comments listed below.

- See comments below to determine the required revisions and resubmit to the Development Services Department public portal located at devservices.cityofls.net. Digital documents shall follow 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. Can the applicant provide cut sheets and additional information on the odor/control system they used as the basis of their design? Specifically, we would like to see cut sheets of the chemical storage tank and the control panel.
2. The Sewer Study states that the chemical feed pump is configurable and has the ability to change dose based on timing. Can the applicant provide clarification on this statement? For example, will the system be set up to provide a fixed flow rate based upon a timer or will the system be set up to have a variable flow rate that can be adjusted around peak and non-peak portion of the day.
3. Delete the last sentence under Paragraph 6 of the Odor/Corrosion Control System Specification. Replace with "Acceptance of the system is contingent upon successful start-up, providing the required training, and providing complete Operation and Maintenance Manuals to the City in both hard copy and PDF form."
4. Provide two chemical feed pumps, one firm and one standby.
5. Delete from the warranty the following "or eighteen (18) months from shipment, whichever occurs first."

6. The bend at Woodland Oak Dr. and Blackwell appears to be a non-standard fitting size. If it is the intent to make the angle through bending of the pipe, please provide calculations showing that this does not exceed the manufacturer's recommended bending radius. Same for the bend at Woodland Shores Dr. and Blackwell.
7. The applicant stated that additional notes were provided concerning the epoxy lining of the manholes. I did not see where this was addressed.
8. Additional comments will be provided as an attachment and in a form of a "marked-up" pdf of the plans, and a "marked-up" pdf of the "response to comments."
9. Please be aware the "Low Pressure Sanitary Sewer Installation Manual" (or equivalent title language) shall be required prior to issuance of a Certificate of Substantial Completion for the project, and hence, no building permits shall be allowed until this document has been submitted and accepted by the City.

Traffic Review - Not Required

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,

/s/ electronically signed Jun. 30, 2022

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cc: Development Engineering Project File