

Date: Thursday, December 08, 2022

To: Doug Ubben
Phelps Engineering, 1270 N. Winchester St., Suite #5878
Olathe, KS 66061

From: Sue Pyles, P.E.
Senior Staff Engineer

Application Number: PL2022323

Application Type: Engineering Plan Review

Application Name: Orchard Woods - Sanitary Sewer

The Development Services Department received plans for this project on September 07, 2022. We have completed our review 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 five (5) business days of the date received.

Engineering Review - Corrections

1. General:
 - Submit an Engineer's Estimate of Probable Construction Costs.
 - Submit a copy of the MDNR Permit.
 - Show location of all oil/gas wells, or indicate none are present, and cite the source.
 - Design and Construction Manual Section 6501.L.1.c states "For installations greater than 7 feet deep, easements shall be a minimum of 2 feet wide for every foot of trench depth." The easement between MHs A-1 & A-2 does not meet this requirement.
 - Please investigate ways to design the sanitary sewer so that it isn't so deep.
2. Sheet 2:
 - Use the following City MH numbers on this sheet and throughout the plan set:
 - o Ex MH B-2 = MH 09-024
 - o Ex MH B-3 = MH 09-044
 - o Ex MH B-4 = MH 09-045
 - o Ex MH B-5 = MH 09-046
 - Please explain the extension of Lines A & B beyond the plat boundary. If MHs A-7 & B-2 are to be constructed as shown, easements will be required prior to plan approval. Please submit a copy for review prior to recording.
 - There is an existing sanitary sewer that runs along the western plat boundary. Please show.
 - Please relocate the downstream segment of Line D to the west side of Lot 12. Routing a sanitary main

between houses is not preferred.

- Show and label the detention basin 100-yr WSE on Tract C.

3. Sheets 3-5:

- Replace “XXXX.X” with elevations in the service line information labels (MSFE and FL@EOS) in Plan view.
- Include “No Doghouse MH Allowed” for MH A-1.
- Line A between MHs A-1 & A-2 does not appear to be centered in the easement, as is required. Please review and revise if needed.
- Indicate any connection to an existing MH shall be by core drilling.
- The following MHs do not meet the 0.5’ minimum drop thru structure:
 - o Line A @ MHs A-1, A-2
 - o Line B @ MH A-5
 - o Line C @ MHs C-1, A-3
 - o Line D @ MH D-I, Ex MH
- Include the following note on any profile sheet applicable: “Compacted Fill shall be placed to a minimum 18” above the top of the pipe prior to installation.” Show and label the limits of the compacted fill placement in the Profile view. Use hatching for clarity.
- The flowlines entering MH A-5 on Line B and MH A-3 on Line C in Profile view are incorrect. Please revise.
- Please review the Line D flowline elevations at the existing MH connection. They don’t make sense.
- Include FL(N) and FL(S) at MH A-1 on Line A in Profile view.
- Include all pipe crossings in Profile view.
- All service line connections shall be by wye, not tee. Please revise.

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,

Sue Pyles, P.E.
Senior Staff Engineer
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Sue.Pyles@cityofls.net

cc: Development Engineering Project File