

Date: Wednesday, March 11, 2020

To: GBA ARCHITECTS ENGINEERS
9801 RENNER BLVD
LENEXA, KS 66219

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

Application Number: PL2019333

Application Type: Engineering Plan Review

Application Name: PARAGON STAR - PUBLIC OFF-SITE WATER MAIN EXTENSION

The Development Services Department received plans for this project on February 21, 2020. 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 five (5) business days of the date received.

Engineering Review - Corrections

1. Sheet 2: Delete General Note 14, it is not applicable.
2. Sheet 3: Revise the Air Relief Assembly at Sta. 11+90.80 to be flush with the proposed grade in the Profile view.
3. Sheet 5:
 - Sta. 32+08.0 R/W stationing in the Profile view appears incorrect. Please revise.
 - Review the different grade line types between Sta. 32+00 and the north end of the project, they appear to be different in parts of that section. Revise as required.
4. Sheet 6:
 - Why is the Air Relief Assembly at Sta. 46+80 located in a section of pipe lower than sections each direction? Consider relocating.
 - Please add casing pipe for the main under the waterway between Sta. 37+00 and Sta. 38+00.
5. Sheet 7:
 - Replace the Air Release Valve at Sta. 53+23.46 with a Fire Hydrant.

- What is the concrete vault for that is shown in Plan view at Sta. 53+29.16?

6. Sheet 8: How will Line B connect to the existing 6" main?

7. General:

- Due to high pressure, a portion of this main will need to be C900 Class 305 rather than Class 200. Adding a Pressure release Valve could reduce the length of Class 305 pipe required.
- Please clarify that any deflection angles greater than 1 degree will need to be spread over multiple sections of pipe so that no deflection is added to the pipe and no more than 1 degree of deflection is added within the joint.

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,

Sue Pyles, P.E.
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cc: Development Engineering Project File