

Date: Thursday, November 02, 2023

To: Matthew Kriete, P.E.
Engineering Surveys & Services

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

Application Number: PL2023165

Application Type: Engineering Plan Review

Application Name: Wilshire Hills 4th Plat - Public Water

The Development Services Department has completed its review of the above-referenced plans dated Oct. 12, 2023 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. It does not appear there was any consideration to lowering the storm lines on the street and stormwater plans. This has an impact on the water main, as you are showing the installation of water main beneath storm lines which is not preferred and presents a long-term maintenance issue to Water Utilities. One of the storm lines is a private line, and is shown over the top of the public water main which is not allowed. Please review the street and stormwater plans, and determine how to eliminate the conflicts with the water and storm lines so the water main can be installed over the top of the storm line.
2. Additional fire hydrant(s) are appear to be warranted. Fire hydrants shall be provided every 500 feet on public water mains. Please evaluate and revise as appropriate. Ensure the fire hydrants are not located within 20 feet of a intersection curb return radius.
3. Deflecting the C900 pipe by 1 degree at each joint produces an approximate 1200 foot radius of curvature. It appears the deflection near station 5+00, 6+25, and 8+75 is less than 1200 feet radius of curvature, and therefore, bends should be installed to eliminate any stress in the line. Please evaluate the locations of bends, and revise as appropriate.
4. The steel casing pipe is not necessary at Strother Rd. if the 8 inch line can be bored without the casing carrier pipe. If possible, please delete the casing carrier pipe.

5. The new valve at the 16 inch line should be specified as a gate valve.
6. Off-site easements may be required across "Lakewood Business Center on I-470 Plat Q Lot 29A." Have you researched this area to determine what easements are needed to install the water main? This shall be required prior to formal approval of the plans.

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 Nov. 2, 2023

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