

Date: Friday, December 02, 2022

To: Derick Holmes, P.E.
GLMV Architecture

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

Application Number: PL2022369

Application Type: Engineering Plan Review

Application Name: Fire Station #4 - Public Offsite Storm Sewer

The Development Services Department has completed its review of the above-referenced plans dated Nov. 16, 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 ten (10) business days of the date received.

Engineering Review - Corrections

1. A cover sheet is required, with the title "Lee's Summit Fire Station #4 - Public Stormwater Relocation" or equivalent language.
[\[DMH 2022-12-07\] - Comment picked up.](#)
2. High density polypropylene pipe (HDPP) is called-out for the storm lines, but it is not clear what type of HDPP is being specified. Were you intending to call-out HDPE? HDPE is allowed in this instance, and may be cheaper than corrugated polypropylene pipe. Please review, evaluate, and revise as appropriate.
[\[DMH 2022-12-07\] - Stormwater piping has been changed to HDPE per contractor preference. The affected drawings on the Final Development Plan have also been updated and submitted to reflect this.](#)
3. Pipe profiles show that matching crowns was not done during design. Please ensure the re-design shows pipe of differing size entering the larger size pipe at the crown or higher. Please evaluate and revise as appropriate, and ensure the drainage table is updated as appropriate.
[\[DMH 2022-12-07\] - After further discussions with the City on 2022-12-02, the design will remain as-is due to existing invert elevations upstream and downstream we are required to tie into and to keep the same capacity in the pipes as the existing condition.](#)
4. Sanitary sewer details were shown in the plans, but no sanitary sewer plans were presented. Unless combining the sanitary sewer plans with the stormwater plans, please eliminate details that do not pertain to the project.
[\[DMH 2022-12-07\] - Per conversation on 2022-12-02, the sanitary sewer details will remain in the package to reflect the design intent for 1000.MH.](#)
5. A trenching and backfill detail was missing. Please ensure the detail includes the July 2020 revision to the Design and Construction Manual which requires 12 inches of aggregate over the top of pipe rather than the old 6 inch standard. Please update with a trenching and backfill detail, and please be aware the City has no standard detail yet for trenching and backfill (i.e., you will need to prepare your own detail in this

instance).

[\[DMH 2022-12-07\] - Comment picked up. REF: 6 / C-530.](#)

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.

[\[DMH 2022-12-07\] - Estimate will be uploaded to the portal once received from McCownGordon.](#)

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 Dec. 2, 2022

Gene Williams, P.E.
Senior Staff Engineer
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