

Date: Tuesday, September 29, 2020

To: RENAISSANCE INFRASTRUCTURE CONSULTING
5015 NW CANAL ST SUITE 100
RIVERSIDE, MO 64150

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

Application Number: PL2020140

Application Type: Engineering Plan Review

Application Name: Sequoia - Public infrastructure

The Development Services Department has completed a review of the above-referenced plans 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. Please label the existing sanitary manhole with the City manhole number 30-051.
2. Please gray out the existing sanitary sewer line north of the existing manhole described above (i.e., to make it appear as an existing feature).
3. Please show the flowline "out" on the existing manhole described above. It is impossible to determine if the drop across the manhole is at least 0.5 feet.
4. The sanitary sewer is shown with absolute minimum slope. It is recommended that the slope be increased slightly to account for tolerance during construction. The City shall not accept any construction of the sanitary sewer less than 0.60% slope.
5. Please label the utility easement on the easement document exhibit as "existing U/E". After this change has been made, please execute and record the document, and provide the City with a document number for verification on the Jackson County website, or provide a recorded copy of the easement. Final approval of these plans is contingent upon the execution and recording of this document.
6. Service lines for the sanitary sewer are shown without a direct path to the sanitary sewer line. The Design and Construction Manual requires that all private sanitary sewer laterals be installed with the shortest

route possible. Please be aware that the City no longer requires the wye to be placed outside the paved area. It appears this older requirement was trying to be met, hence the bends in the private sanitary sewer laterals.

7. Please show the limits of backfill to be performed where fill is being placed in relation to the water line. The City now requires all plans to include the limits of backfill and sufficient notes to be shown on the profile view of the water line, to ensure that the contractor knows that backfill will be provided to a plane that is 18 inches to the proposed grade of the water line, compacted according to City standards, and then the backfill will be trenched and the water line installed.

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,

/s/ Gene Williams electronically signed Sep. 29, 2020

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