
PUBLIC WORKS ENGINEERING DIVISION

Date: Friday, December 09, 2016

To:

ENGINEERING SOLUTIONS

Matt Schlicht, P.E.

Email: MSCHLICHT@ES-KC.COM

Fax #: (816) 623-9849

From: Gene Williams, P.E.

Senior Staff Engineer

Application Number: PL2016106

Application Type: Engineering Plan Review

Application Name: Manor at Stoney Creek 2nd Plat Sanitary Sewer

The Public Works Department received plans for this project on Dec. 2, 2016. We have completed our review and offer the following comments:

Engineering Review

1. Sheet C.401: The title of this sheet does not appear to match the index sheet. Please rename this sheet "Sanitary Sewer General Layout" to coincide with the index sheet.
2. Overview Sheet C.401: The previous submittal showed the sanitary sewer line being installed between Lots 60 and 61. A new alignment is now shown from manhole A-3 to the existing City manhole #60-082. This new alignment places the sanitary sewer in the rear yards of Lot 62 and 61, which is not allowed by the Design and Construction Manual.
3. Sheet C.402: The proposed grade appears to be missing between manholes A-3 and the existing City manhole #60-082 (i.e., the proposed grade line ends abruptly to the east of manhole A-3). Please show the proposed grade. Please be aware, however, of the previous comment concerning placement of the sanitary sewer in the rear of the lots.
4. Sheet C.402: If the proposed change to the alignment of the sanitary sewer is allowed on the basis of a waiver, the drop at manhole A-3 will need to be upgraded to 0.5 feet rather than 0.2 feet as shown. In addition, the flowline in and out directions do not appear to make sense. It would appear the flowline in direction is from the west, and the flowline out is to the north.
5. Sheet C.402: Manhole A-2 is shown with a flowline out to the northwest. Shouldn't this direction be to the east? Also, shouldn't the flowline in direction be from the south? Finally, if this new alignment is allowed by a waiver to the Design and Construction Manual, a minimum 0.5 foot drop is needed rather

than 0.4 feet as shown.

6. Sheet C.403: Sanitary sewer Line G and Line U appear to contradict each other in terms of labeling. Shouldn't this be named consistently (i.e., Line U or G)? In addition, it is not clear what is being proposed from the plans. Please provide specific instructions on the plans describing that the existing sanitary sewer line downstream of the existing sanitary sewer manhole U1 will remain in place, and new sanitary sewer line will be connected at this point.
7. Sheet C.405: The minimum pipe slope is specified for the 10" sanitary sewer. Is there any way to increase this pipe slope to 0.43%? This will allow for some construction tolerance. Please be aware the City will not accept any as-built sanitary sewers which do not meet the minimum standard of 0.42% for the 10" sanitary sewer line.
8. Sheet C.405: The private sanitary sewer laterals serving Lots 43 and 44 are shown too close to the manhole and too close to the roadway. Please move the wye connection point for these two lots further west, keeping in mind the four (4) foot minimum separation rule.
10. Sheet C.406: It does not appear that a sanitary sewer lateral was shown to serve the future platted lot to the west of Lot 56. Please show the location of the lateral.
11. An Engineer's Estimate of Probable Construction Costs appeared missing from the submittal package.

In order to calculate the Public Works' 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

Beginning Monday, May 23, 2016, 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 will not be required for initial application submittals at this time as the plans are subject to change.

Electronic copies shall be provided on CD in the following formats

- Plats – All plats shall be provided in Tagged Image Format File (TIFF) Group 4 compression.
- Engineered Civil Plans – All engineered civil plans shall be provided in Tagged Image Format File (TIFF) Group 4 compression. All sheets shall be individually saved and titled with the sheet title.
- Architectural and other plan drawings – Architectural and other plan drawings, such as site electrical and landscaping, shall be provided in Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).
- It is requested that each plan sheet be a maximum of 2MB.

Please contact Staff with any questions or concerns you may have.

If you have any questions or comments, please contact me, Gene Williams either at (816) 969-1812 or e-mail to Gene.Williams@cityofls.net.

Sincerely,

Original Signed

Gene Williams, P.E.
Senior Staff Engineer

cc: Development Engineering Project File