
PUBLIC WORKS ENGINEERING DIVISION

Date: Friday, November 04, 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: PL2016138

Application Type: Engineering Plan Review

Application Name: View High Dr. to Chipman Road Sanitary Sewer (off-site Village at View High)

The Public Works Department received plans for this project on Oct. 21, 2016. We have completed our review and offer the following comments:

Engineering Review

1. Please refer to comment #1 in the previous comment letter dated Sept. 19, 2016. The "Encasement Profile" shown on Sheet C.405 does not appear to match what is shown on Sheet C.402 or Sheet C.204.
2. Please refer to the markup version of Sheet C.405 provided as an attachment to this comment letter. Specific dimensions and materials should be specified for the encasement rather than referring to a table. This would include thickness of the concrete around the pipe, KCMMB concrete mix, etc.
3. Please refer to the markup version of Sheet C.405 provided as an attachment to this comment letter. Separate section views should be provided at the ends and the middle of the encasement.
4. Please refer to the markup version of Sheet C.405 provided as an attachment to this comment letter. Additional depth at each end of the encasement detail appear warranted (e.g., 30"?). A low flow "trough" appears to be warranted at the middle of the crossing.
5. Please refer to the markup version of Sheet C.405 provided as an attachment to this comment letter. Additional length of the encasement on each side appears warranted near station 2+92. This is due to what appears to be a small tributary at this location.
6. Sheet C.404: It appears bank stabilization is warranted for manhole A-13 and manhole A-12. The alternative would be to extend the length of the crossing so the manholes are outside of the streambank.

Please be aware that the specification of "rip rap" would not be sufficient to protect these manholes, so a more robust design would be necessary.

7. Sheet C.402: Stream restoration is specified on the plan view for areas to the east and west of the stream crossing, and the notes refer to Sheets C.406 and C.407. Sheets C.406 and C.407 are generic stream restoration details, and additional site-specific design details are needed. Where are these measures going to be implemented? What are the planned dimensions? Where are they going to be installed?
8. Sheet C.401: A note is provided on the plan view which states "Floodway Grading Plan". Where is this plan? The note points to the stream, with no proposed contours. Will the existing grades be changed on the sides of the stream?
9. General Comment on the No-Rise Study: We are awaiting additional information from the engineer concerning the HEC-RAS model to make a decision concerning the no-rise certificate. At this time, the City believes the general concept of the design will meet the requirements of a no-rise condition.
10. General Comment: Easements will need to be acquired, United States Army Corps of Engineers (USACE) permits submitted, No-Rise certificates submitted, and a City-issued Floodplain Development Permit issued prior to approval of the plans.
11. General Comment: If the additional information needed to confirm or not confirm the No-Rise condition reveals that slight adjustment to the plans be made, then additional comments on the plans may be forthcoming. The City anticipates that this would be limited to additional grading along the streambank(s) to achieve a true No-Rise condition.

Engineering Review

1. Manhole A-2 is shown extending six (6) feet above the finish grade. In accordance with the Design and Construction Manual, manholes shall be fitted with watertight ring and bolt-down assemblies with neoprene gaskets where the manhole extends greater than four (4) feet above finish grade. Please provide sufficient notes and a detail drawing showing these features.
2. Please submit a Floodplain Development Permit with the required attachments.
3. The City has concurred with the No-Rise Study. Please submit a No-Rise Certificate for this project.
4. Please be aware that easements must be acquired prior to approval of this project.
5. Please be aware that United States Army Corps of Engineers (USACE) approval is required prior to City-approval of this project.
6. The Engineer's Estimate of Probable Construction Costs dated Oct. 21, 2016 appeared to be missing the

following items: 1) sanitary pipe encasement at the two (2) locations shown on the plans, in accordance with the details, including all steel reinforcement, excavation, forming, etc., 2) diversion dikes within the stream that are necessary to construct the above sanitary sewer crossing, 3) bolt-down frame and lids, 4) watertight seals, and 5) streambank stabilization measures.

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) 969-1800 or e-mail to Gene.Williams@cityofls.net.

Sincerely,

Gene Williams, P.E.
Senior Staff Engineer

cc: Development Engineering Project File