

Date: Wednesday, March 30, 2022

To: ANDERSON ENGINEERING INC
Garrett Cates, P.E.
941 W 141ST TERRACE SUITE A
KANASAS CITY, MO 64145

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

Application Number: PL2022093

Application Type: Engineering Plan Review

Application Name: COBEY CREEK 2ND PLAT - Public Water Line

The Development Services Department received plans for this project on March 14, 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. Water line is shown between lots 33 and 34. This is not allowed by the Design and Construction Manual without specific approval from Water Utilities. Please relocate the water main so it is not located within sideyards.
2. Sheet C202: Water main is too deep beneath the sanitary line at sta 8+50. Please revise depth of sanitary line and place line on top of sanitary line. The City is willing to consider 3.0 feet of cover in this instance due to the fact this is not a dead end and water will move continuously during use.
3. Water mains 2-FF and 2-GG shall be 12 inch rather than 8 inch as shown. There is a 12 inch water main along Cobey Creek Dr. which was shown in the PDP to be extended to the plat boundary, and as shown, these two lines will not meet the requirements shown in the PDP. Please revise.
4. Valves on the new 12 inch line shall be butterfly valves rather than gate valves. This is required for any water main 12 inches and larger. Please review and revise.
5. General Layout Sheet: It would be beneficial to show the size of existing water mains and proposed water mains on this sheet. As previously discussed, a 12 inch line exists along Cobey Creek Dr., all the way to

the M-150 connection point. This line shall be 12 inch all the way to the plat boundary, and eventually will connect to the property line to the north in a future phase (i.e. the Weaver property). Please revise.

6. In addition to the gate valve on the south side of M-150 at the new connection point, an additional gate valve is required on the north side to isolate a break if it occurs beneath the highway. Please revise.
7. Sheet C205: The water main is too deep at sta 6+90. Maximum depth of cover is 7 feet as measured to the top of pipe to the finish grade. Either relocate the storm line, and move the water main so it is located on top of the storm line rather than beneath the storm line. The City would consider a lesser cover such as 3.0 feet in this instance since the water main is continuously flowing and not in a dead end situation. Please analyze and revise as appropriate.
8. Sheet C207: Please see comment above. This comment also pertains to the water main at sta 12+20. It is too deep. Please review and revise as appropriate.
9. Sheet C208: Please see comment above. The same comment pertains to two (2) different locations on the profile view where the water main is shown deeper than 7 feet of cover as measured from the top of pipe to the finish grade. Please review and revise as appropriate.
10. Sheet C209: Line JJ is too deep. See previous comments related to this issue and review and revise as appropriate.
11. Sheet C210: Please see comment above related to depth issue. This line is too deep beneath the storm line. Please review and revise as appropriate.
12. Sheet C212: Please see above comment. A portion of the line is too deep. Please review and revise as appropriate.
13. Casing pipe diameter, length, and wall thickness shall be shown on the plan view for the water main crossing. Please review, coordinate with MoDOT, and revise as appropriate.
14. An MDNR construction permit shall be required for this project. An MDNR concurrence letter shall be issued after the plans are deemed approvable, along with a model run performed internally by City staff. This comment is for informational purposes only.
15. A MoDOT permit shall be required prior to approval of the plans. This comment is for informational purposes only.

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.

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 Mar. 30, 2022

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