

Date: Friday, February 01, 2019

To:

HG CONSULT, INC

Kevin Sterrett, P.E.

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Fax #: <NO FAX NUMBER>

From: Gene Williams, P.E.

Senior Staff Engineer

Application Number: PL2018212

Application Type: Engineering Plan Review

Application Name: Cobey Creek 1st Plat - Off-site Sanitary Sewer

The Development Services Department received plans for this project on Jan. 25, 2019. We have completed our review 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

1. Please refer to the applicant letter dated Dec. 13, 2018, comment 13. We had requested that a simple calculation be performed to determine the 100 year water surface elevation in the vicinity of the creek crossing shown on Sheet 4 of 7 (i.e., between manholes A6 and A5). No calculation was provided, nor shown on the plans. There is concern that the manhole is within the channel, especially on the north side since the manhole appears to be shown between the banks of the channel. It is likely this manhole should be moved to the north, outside the channel, and beyond the bank of the channel. At a minimum, however, the 100 year water surface elevation should be calculated, and shown on the plans. Assumptions should consider full build-out conditions for development.
2. Please refer to the applicant letter dated Dec. 13, 2018, comment 15. Issues with the grading near manhole A7 were discussed. The most recent plan and profile view, however, shows grading in the vicinity of this manhole, with the intent to lower the cover to meet the 15 foot requirement. This grading is going to create a depression in the vicinity of the sanitary sewer line, and form a swale of sorts. The bigger question is "why are you doing any grading at all?". It appears the finish grade over the sanitary sewer will be only slightly greater than 15 feet of cover (i.e., just inches above the requirement). In other words, we are recommending the existing grade, if accurately depicted on these drawings, not be altered in any way.
3. Concerning the above comment, the 15 foot cover note shown on Sheet 4 of 7 is not scaled properly. As shown, it is depicting approximately 14.5 feet. For your information, 15 feet of cover is measured from

the top of pipe, not the flow line of the pipe.

4. Please refer to the applicant letter dated Dec. 13, 2018, comment 18 and 19. We had requested a detail for the frame and cover, but only received a detail for the cover. We had also requested a detail for the trenching and backfill. A trenching and backfill detail was provided, but it merely shows "bedding", with no explanation or definition, and "backfill", with no explanation or definition.

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,

Original Signed

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