

Date: Thursday, November 02, 2023

To: Matthew Kriete, P.E.
Engineering Surveys and Services
COLUMBIA, MO

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

Application Number: PL2023171

Application Type: Engineering Plan Review

Application Name: Wilshire Hills 4th Plat - Street and Storm Plans

The Development Services Department has completed its review of the above-referenced plans dated Oct. 12, 2023 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. The stormwater report did not appear to analyze the downstream peak flows within the receiving stream after construction of the detention basin. Given the location within the watershed immediately upstream of a FEMA floodplain, and given the proximity of existing upstream detention basins, it would appear the construction of the detention basin as shown on the plans will likely increase the peak flows due to timing of the peaks and slow release of stormwater from the detention tract over an extended time period. Please address this issue within the stormwater study. It is possible that peak attenuation of the 2, 10, and 100 year events will not be necessary and could be detrimental to the downstream receiving system. If this is the case, water quality could be provided on-site or off-site without the need for peak attenuation of the 2, 10, and 100 year events. Please analyze and revise the stormwater study as appropriate.
2. It is difficult to determine from the plan view, but it appears the 100 year clogged condition/zero available storage within the detention basin does not meet the 20.0 feet setback requirement from the tract line. A minimum setback of 20.0 feet is required from the tract line, property line, and all buildings.
3. Although not shown on the plat, a stream buffer easement is required for the portion of the stream exiting the large concrete box culvert. The buffer is measured as a minimum distance from the ordinary high water mark of 100 feet (i.e., not the centerline of the stream). It appears the detention basin is shown partially within this stream buffer, which is not allowed. Please revise or see previous comments.

It is possible this detention basin and tract may not be desirable for the development.

4. It appears PCC is being shown as an alternate for the asphaltic concrete pavement. Please specify KCMMB mix for the concrete. KCMMB mix has granite aggregate and is the only mix allowed in the City of Lee's Summit.
5. Please refer to comments on the Final Plat. The two (2) short easements shown extending from curb inlets along Wilshire Dr. and extending to the east should be removed. The storm lines extending from these two (2) curb inlets shall be considered private.
6. It does not appear the skimmer was shown with the sizing information. Please provide a site-specific design including sizing for the skimmer.
7. Sheet C2.17: The pond setup table included within the appendix of the stormwater report shows a flowline elevation of 911.15 for the 8 inch orifice. The plans on Sheet C2.17 show 911.50. Please reconcile.
8. Sheet C2.17: It does not appear any method for anti-clogging of the 8 inch orifice was shown. Please provide a method to prevent clogging of the 8 inch orifice.
9. Sheet C2.17: The emergency spillway crest detail shows "Design Stage=923.30". Shouldn't this read "Clogged Condition/Zero Available Storage = 923.30"? Please revise as appropriate.
10. Please see previous comment letter about what is expected on Sheet C2.17. We need the following added to the sheet: 1) 100 year nominal (i.e., design) storage volume.
11. Please be aware if KCMMB concrete option is selected, a site-specific jointing plan shall be required. The generic plan is not sufficient.
12. Site-specific ADA-ramp details are required at Strother Rd. intersection. This includes: 1) slope callouts, 2) elevations at corners, 3) cross-slopes, 4) width of the ADA-accessible route across the intersection, 5) and elimination of the wings on the ends of the ADA-accessible ramp. Simple grading to the edge of the ramp should be used rather than the wings shown on the ramps. Please submit a site-specific plan for the ADA-accessible ramps at Strother Rd.
13. The same comments above related to the ADA-accessible ramps apply to both commercial entrances on Wilshire Dr. Please provide site-specific designs for the ADA-accessible ramps at both commercial entrances. In addition, ensure the ADA-accessible route across the commercial entrances are shown with slope callouts and dimensions and elevations.

14. It may be better to defer the ADA-accessible ramps shown at the two (2) commercial entrances until the Final Development Plan is approved. If so, please provide notes stating "see separate Final Development Plan" or equivalent language for these ADA-accessible ramps. Please be aware the ADA-accessible routes, however, will need to be constructed across the commercial entrances along with the street improvements.
15. The short extension of sidewalk to the north to tie into the existing sidewalk on Wilshire Dr. should be completed along with these improvements. However, it appears from the GIS that the plans are several feet short of where the existing sidewalk is located. Please extend the sidewalk until it meets the existing sidewalk to the north, and provide notes to that effect. Otherwise, there will be a gap.
16. All sidewalk related to this project including ADA-accessible ramps and ADA-accessible routes should be clearly labeled with instructions regarding when they are to be constructed (i.e., during the street and stormwater project or during the Final Development Plan). This can take the form of a legend, notes, or a combination of both.
17. It appears there is a private 24 inch storm line towards the north portion of the project that is shown beneath the new road. This should be addressed by eliminating this private storm line and re-configuring the geometry of the public storm system in the northern portion of the project. Although private storm lines are acceptable, we cannot approve of private storm lines beneath public streets. Please evaluate and revise as appropriate.

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/ electronically signed Nov. 2, 2023

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cc: Development Engineering Project File