

Date: Thursday, October 15, 2020

To: OLSSON ASSOCIATES
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116

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

Application Number: PL2020246

Application Type: Engineering Plan Review

Application Name: OSAGE 2ND PLAT - Street, Stormwater, Master Drainage Plan

The Development Services Department has completed its review and offer the following comments listed below.

- Resubmit three (3) full size sets of plans (no larger than 24"x36") folded to 8-1/2"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 - Corrections

1. Swale 1, 2, and 3: Please provide clear references to the swales on the Master Drainage Plan, which include the Sheet number, the general location of the swale, etc. The swale details on Sheets C106 through C109 are thorough, but lack overall context of their location within the overall Master Drainage Plan.
2. Master Drainage Plan Sheet C126: Please consider grouping the swale detail sheets described above near the Master Drainage Plan. At a minimum, please show the general location of the swales on the Master Drainage Plan, along with Sheet numbers for reference.
3. Lots 60 through 67 appear to be shown with MBOEs below the 100 year water surface elevation within the rear yard swale. This swale would appear to be functioning as a "diversion berm" and swale. While the MBOE might be allowed below the 100 year water surface elevation within the "diversion berm" and swale, certain conditions are required for this to be allowed. Typically, the "diversion berm" should be designed to provide a minimum of 2.0 feet of freeboard between the calculated 100 year water surface elevation, and the top of the berm. It is unclear whether this requirement has been met. Please verify.
4. Lots 42 through 44 appear to show the MBOEs below the 100 year water surface elevation. Please see the above comment concerning this situation. If constructing a "diversion berm" and swale, the same criteria should be met for its design.

5. Sheet C115: The ADA-accessible route across Clayton Place appears to be designed with a higher slope on the east side of the crown (i.e., 1.67%). It would appear the ADA-accessible ramp could be redesigned slightly to achieve the 1.5% slope required by the Design and Construction Manual. If not, please discuss why this cannot be achieved.
6. Sheet C116 and C117: The same comment discussed above pertains to the east side of the ADA-accessible route across Rivengate Place, and both sides of the ADA-accessible route across Rutherford Dr. The Design and Construction Manual requires a design slope of 1.5%.
7. Please call-out specific notes, cross-hatching, etc. on the plan view for the "Roadway Plan and Profile" sheets which show the ADA-accessible ramps will be constructed with the street improvements, along with sidewalks which are adjacent to common area tracts.

Traffic Review - Corrections

1. Add City Typical End of Road Sign Treatment (e.g. 4 evenly spaced 18" Object Markers OM4-3) at the end of all dead end streets.
2. The proposed stop sign and street name sign installation at the SE corner of Clayton Place/Holdbrooks Drive should be removed from the plans. The 1st Plat should have installed stop signs and street name signs for this intersection; with stop signs on the NE and SW corners for stop control on Holdbrooks Drive.
3. Osage Drive Sta. 16+22.74, Existing Tie-In, has different profile grades 1.50% Proposed vs. 1.48% Existing

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/ Gene Williams electronically signed Oct. 15, 2020

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