

Date: Monday, May 11, 2020

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

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

Application Number: PL2020114

Application Type: Engineering Plan Review

Application Name: The Retreat at Hook Farms - Street, Storm and Mass Grading

The Development Services Department received plans for this project on April 08, 2020. 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 - Corrections

1. Common area tracts are shown within right of way, which is not allowed.
2. Minimum Low Openings are called out on the Master Drainage Plan. The City of Lee's Summit does not recognize MLOs, only Minimum Building Opening Elevations (MBOEs). Please correct.
3. The ADA-accessible route across Hearthstone at Hook Road does not appear to meet the City's design standards. A maximum design cross-slope of 1.5% with a minimum width of 5 feet is required at the stop controlled intersection. Ramps must be designed with no more than 7.5% longitudinal slope, and no more than 1.5% cross slope.
4. The same comments above concerning inadequate ADA-accessible routes and sidewalks apply to the details for the intersection of Harvest Moon Place and Harvest Moon Ln.
5. All sidewalks, including multi-use trail, must be designed with no more than a 1.5% cross slope, and no more than 7.5% running slope at ADA-accessible ramps. There are numerous violations of this rule throughout the plans, with 2.0% cross slope called-out, and 8.0% running slope for ramps which is not acceptable.

6. There are numerous violations of the gravity flow rule for storm lines. The 10 year design storm must be at or below the crown of the pipe, not above the crown of the pipe.
7. An easement is shown from the discharge of the water quality pond. This is a private storm line, not public. An easement is not necessary or desired.
8. Please see the comments related to the stormwater memo in Hook Farms 1st Plat. The memo is not sufficient for this project. A final stormwater study is required, with specific design information related to the water quality pond.

Traffic Review - Corrections

1. Tracts within the roadway should be ROW.
2. Can a typ. cul-de-sac be designed on the south approach to the intersection of Red Barn and Harvest Moon? Recommend a cul-de-sac in lieu of the split intersections that are very closely spaced at a corner that does not provide clear right of way for traffic and pedestrians.
3. Could a larger K vertical profile be achieved at the end of Hearthstone approaching Hook Road to improve sight lines and crosswalk crossslope at the intersection? What is the min. cover on the water line? Review alternatives.
4. Signing needed at the intersection of Harvest Moon and Red Barn.

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,

/Gene Williams

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cc: Development Engineering Project File