

**DEVELOPMENT SERVICES**

**Date:** Monday, April 27, 2020

**To:** <NO CONTACT NAME AVAILABLE>  
<NO CONTACT INFORMATION AVAILABLE>

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<NO CONTACT INFORMATION AVAILABLE>

**To:** ENGINEERING SOLUTIONS  
50 SE 30TH ST  
LEES SUMMIT, MO 64082

**From:** Sue Pyles, P.E.  
Senior Staff Engineer

**Application Number:** PL2020104

**Application Type:** Engineering Plan Review

**Application Name:** Monticello 4th plat - street and storm

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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 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. General:

- Due to the missing information and the number of comments, the resubmittal will require a 10 day review period.
- Include storm sewer calculations in the plan set. A complete review of the storm sewer system could not be completed at this time.
- Submit an Engineer's Estimate of Probable Construction Costs.
- Submit the SWPPP and a copy of the MDNR Land Disturbance Permit.

2. Sheet C.001

- Revise Water Construction and Design Notes based on review comments provided for water line extension plans.
- HDPE pipe is not allowed under collector streets, so not all pipe material on this project will be HDPE.

Revise Street & Storm Sewers Construction and Design Note 2 accordingly.

- Revise General Note 4 and the Utility Companies list to reference Development Services Field Inspection at 816-969-1200.

- KCP&L is now Evergy. Please update the plan set.
- Include a vicinity map that shows and labels nearby streets
- Include a Summary of Quantities table.
- Include FEMA and Oil/Gas Well notes.
- Remove the approval signature block for the City. A stamp will be provided electronically when approved.
- Revise the Index of Sheets to match the plan set.

3. Sheet C.100: Please show and label the detention basin 100-year WSEs on this sheet and throughout the plan set.

4. Sheet C.200:

- Add contour elevation labels.
- Please label all lots and tracts as shown on the proposed plat on this sheet and throughout the plan set.
- Swale information provided does not match the swales shown in the Grading Plan. Please reconcile.
- Clearly indicate a start and stop location for each swale typical section.

5. Sheet C.201:

- Please include MBOEs for each lot.
  - o Lots adjacent to the detention basins: MBOE must be a minimum of 2' above the emergency spillway 100-year HGL, based on the fully-clogged condition.
  - o Lots adjacent to swales: MBOE must be a minimum of 2' above the 100-year WSE.
- Lots 30-32, Monticello 1st Plat, are adjacent to the detention basin. Each existing home MBOE must meet the City's current requirement. If not, please rectify.
- As-Graded Plot Plan requirements will now be designated on the MDP. Please designate, in tabular form, which lots have this requirement based on the following:
  - o Lots that include or are adjacent to engineered swales designed for stormwater conveyance.
  - o Lots adjacent to stormwater conveyances or features, such as drainage ways, detention basins, retention basins, etc.
  - o Lots that contain berms designed to direct stormwater runoff as a part of the overall stormwater design.
  - o Lots that require specific grading that is a part of the overall stormwater design.
- Please ensure every lot corner has appropriate spot elevations shown. Many are missing.
- Please label Top Elevations for all structures other than curb inlets.
- Please label 100-year WSE at every lot corner and structure adjacent to 100-year flow or detention.
- Are the Turf Reinforcement Mats shown at the south street connections a part of this project? Please clarify.
- Please relocate overlapping text at the front corner of Lots 127/128.

6. Sheet C.203:
  - Plan View:
    - o Turn the street name label so it is readable on this sheet.
    - o Remove all of the extraneous lines throughout.
    - o Remove references to turf reinforcement mat.
    - o Label the end construction location, with stationing.
  - Profile View:
    - o Remove all notes and graphics that imply the profile is for 3rd Plat and this area is a future phase.
    - o Include underdrain at low points.
    - o Clearly delineate between existing and proposed roadway.
    - o Relocate overlapping text near the begin roadway location.
    - o Label existing and proposed grade.
    - o Remove the extraneous label, "Station= 0+22.21 ???", near Sta. 11+25.
    - o NE Freehold Drive and NE Freehold Court are being platted as separate streets. Please reference them separately.
7. Sheet C.204:
  - NE Freehold Drive and NE Freehold Court are being platted as separate streets. Please show them separately.
  - Plan View:
    - o Remove all of the extraneous lines throughout.
    - o Remove references to turf reinforcement mat.
    - o Please darken the street names for clarity.
    - o Label the end construction location, with stationing.
  - Profile View:
    - o Remove all notes and graphics that imply the profile is for 3rd Plat and this area is a future phase.
    - o Include ADA crossing slope note for the stop conditions on NE Freehold Court and NE Freehold Drive.
8. Sheet C.205:
  - Just FYI – Intersection is misspelled in the sheet title.
  - Revise “Drive” to “Court” in the street name north of NE Jamestown Drive.
  - Show and label the proposed sidewalk on the south side of Jamestown, west of Freehold.
  - Revise the ADA Ramp to direct users east or north at the SW corner of Jamestown and Freehold.
9. Sheet C.206:
  - NE Freehold Drive and NE Freehold Court are being platted as separate streets. Please show them separately and darken their names for clarity.
  - Remove all of the extraneous lines throughout.
  - Remove references to turf reinforcement mat.
  - Remove or revise any notes or graphics that imply this area is a future phase.

10. Sheet C.206:
- Show and label the distance between the north property line and the 100-year WSE boundary at each end of Retention Basin E1. If the required 20 separation is not met, please revise accordingly.
  - Include enough contour labels to clarify the contours are at 2' intervals outside of the basins but 1' intervals in the basins.
11. Sheets C.301-C.304:
- General:
    - o NE Jamestown Drive is classified as a Collector, and HDPE is not an allowed material cross-road pipe under collectors. Please revise Lines 1, 2, 5, 6, and 7 accordingly.
    - o Include design HGLs in all pipe profiles.
    - o Show rip-rap at all end sections in the Profile views.
    - o Revise "Flare" to "Flared" in all Profile view FES labels.
    - o Label street names in all Plan views.
    - o CI 5-2 does not have adequate horizontal separation from the existing sanitary sewer line. Please revise to meet minimum requirements.
    - o The existing storm sewer discharge from the adjacent property, located at the east end of the detention basin, is not accounted for or addressed anywhere in the plans. Please include.
12. Sheets C.301-C.304:
- Plan View: Relocate the FES 9-2 label for clarity.
13. Sheets C.301-C.304:
- Profile Views:
    - o Structures 1-2, 6-2, 6-6, and 6-7 don't graphically match the top elevations included in the labels. Please revise.
    - o Relocate the pipe information for pipe section downstream of structures 6-2, 6-4, and 6-8 for clarity.
    - o The Storm 4 "Proposed Grade" label is cut off.
    - o FES 5-1 flowline does not graphically match the top elevations included in the label. The label appears correct. Please revise.
    - o Storm 8 & 9 profiles are missing flowline elevations and pipes. Please revise.
    - o Include the following note on any profile sheet applicable: "Compacted Fill shall be placed to a minimum 18" above the top of the pipe prior to installation."
    - o Show and label the limits of any compacted fill placement in the Profile view. Use hatching for clarity.
14. Sheet C.305: The rip-rap calculations included don't appear to be for this set of plans. Please revise accordingly.
15. Macro Storm Water Drainage Study:
- Please include a narrative of 40-hour extended detention. The reasons for removing this requirement

should be thoroughly discussed, not just one sentence saying that 40 hour extended detention is not required in wet retention basins.

- Include the drainage discharging into the detention basin from the adjacent property to the east in the overall storm sewer design. It does not appear to be accounted for.
- There are not enough off-site contours shown on the grading plan to show the discharge from the detention basin will follow the existing creek. Please provide enough off-site contours to ensure this is the case.

### **Traffic Review - Corrections**

1. Missing dimensions for some design elements, including cul-de-sac and horizontal alignment (e.g. radii, benchmarks, control points, etc.)

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**

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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,

Sue Pyles, P.E.  
Senior Staff Engineer  
(816) 969-1245  
Sue.Pyles@cityofls.net

cc: Development Engineering Project File