

September 16, 2020

Gene Williams
Senior Staff Engineer
City of Lee's Summit, Missouri
220 SE Green Street
Lee's Summit, MO 64063

RE: Whispering Woods 2nd Plat – Street, Storm and Master Drainage Plan

Dear Mr. Williams,

1. *Please provide a stormwater memorandum or abbreviated study which provides a briefing of the stormwater issues for the project, including past activities related to the construction of 40 hour extended detention basins, the waiver to the stormwater peak attenuation requirements, and how this particular portion of Whispering Woods fits within the overall plan for the entire subdivision. In particular, the stormwater memorandum should specifically discuss the lack of detention along the rear lots of 34 through 51, and how the new grading in accordance with the Master Drainage Plan will reduce the drainage area converging toward the south off-site properties. and how the peak runoff will be reduced to "at or below" existing peak runoff after grading so the off-site properties will not be negatively-impacted.*
A stormwater memorandum has been included addressing the storm water issues for this phase of the development.
2. *If the above plan is not available to the applicant, we can supply a copy if needed. Please ensure that all swales are properly detailed, along with all off-site grading to construct the swales during construction of other improvements. Also ensure that all existing and finish grades are provided for lot corners, and basement type is specified for each lot, and the Minimum Building Opening Elevation (MBOE) is specified for each lot, or multiple MBOEs shown.*
The swale has been further defined and all MBOE's have been added to the grading plan sheet.
3. *Sheet 5: The grading plan is unclear how drainage from upstream areas will be managed at the near the north end of SW Swan Creek Rd. It would appear additional stormwater control measures are needed in this area, such as additional field inlets, curb inlets, pipe, etc.*
The area north of SW Swan Creek Rd is treated in several ways. A swale has been added to the grading plan directing the watershed to the west into the field inlet between lots 45 and 46. In a future Phase, SW 26th Terrace will be extended and storm inlets will be place north of the intersection of Swan Creek and SW 26th Terrace. This stormwater will be channeled west to tie into existing stormwater system on River Run Drive.
4. *Sheet 5: The same comment above applies to the east end of SW 27th St.*
Proposed storm line C has been extended to east of SW 7th St. A 15" flared end section is proposed that can be incorporated into the stormwater system for a future phase when SW 27th St is extended North to SW Glen Stream Drive. Grading has been adjusted to ensure drainage into the flared end section.
5. *Sheet 5: The same comment applies to the south end of SW Swan Cir. It appears this configuration will have an adverse impact on the adjacent property to the south of SW Swan Creek Rd.*
Curb inlets have been added along SW Swan Cir south of the intersection. Curb inlets tie into Line C. The end of Swan Creek has been pulled back 20' from the edge of property to install a 1' deep stilling basin that receives water discharged from SW Swan Cir. The grading plan has been revised to show the stilling basin.

6. *Sheet 9: This is not a four way stop controlled intersection, and as such, these details must be revised. SW Swan Creek Rd. is a collector, and is not under stop control. As such, the ADA-accessible route across SW Swan Creek Rd. may match the proposed road grade up to 5.0%. The ADA-accessible route across SW 27th St., however, is limited to a 1.5% design slope with a minimum width of 5.0 feet across the entire road. Please make appropriate changes to this sheet, and also make appropriate changes to the street plan and profile to reflect these standards, especially in regard to the location of the ADA-accessible route across the stop-controlled intersection at SW 27th St..*

The intersection of Swan and 27th has been revised to ensure Swan Creek is not a stop intersection. All sidewalk ramps have been revised.

7. *Sheet 9: There are several references to a running slope of the ADA-accessible ramps as over 7.5%. The City of Lee's Summit has adopted a more stringent standard of 7.5% rather than 8.33%. Please revise.*
All running slopes have been revised to ensure no slope over 7.5%.
8. *Sheet 9: Sidewalk is only required along one (1) side of SW 27th St. since this is a local access road. Sidewalk is required on both sides of SW Swan Creek Rd., however, since this is a residential collector.*
Sidewalk on the north side of SW 27th has been removed.
9. *Sheet 15: The typical section views need to be revised to residential collector on Swan Creek Rd., and residential local access on SW 27th St. Please see the latest Design and Construction Manual requirements for each. Please be aware that CG-1 straight back curb and gutter is required for residential collector streets, and CG-2 curb and gutter is required for local access roads.*
The typical sections on Sheet 15 have been revised to city standards.
10. *Sheet 15: In addition to pavement requirements, the City requires the use of chemically-stabilized subgrade or geogrid in addition to compacted subgrade to 95% proctor.*
Geogrid has been added to typical sections per city standards.
11. *Standard Detail Sheets: It appeared the end of road treatment detail was missing. Please see Traffic Engineering comments related to this requirement.*
End of road object markers have been added to all dead end streets.
12. *A separate erosion and sediment control plan is required, with a separate cover sheet and separate drawings.*
Erosion control plans have been separated into a separate plan set.

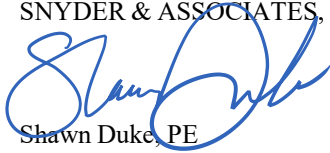
Traffic Review

1. *Update Typical Section for Swan Creek Rd description to Residential Collector from Local and revise curb to CG-1 for Swan Creek Rd.*
Typical Sections have been revised per city standards.
2. *Remove the Stop Sign & Street Name Sign installations from SW Swan Creek Rd at SW 27th Street. Only 27th Street should have stop signs and only one set of street name signs required (not necessary above both stop signs).*
Street signs on SW Swan Creek Rd have been removed and only one set of street name signs remains.
3. *Add end of road sign treatment (object markers); set of 4 evenly spaced object markers per City standards, at the end of all dead end streets.*
End of road object markers have been added to all dead end streets.

4. *Maximum grade on Swan Creek Rd shall not exceed 8%, per collector standards in Design and Construction Manual.*
Swan Creek Rd has been revised to not exceed 8%.
5. *K value on Swan Creek Rd shall be at least 12 for all vertical crests.*
The K value on Swan Creek Rd has been revised to be at least 12.

If you have any additional questions or comment do not hesitate to contact me.

Thank you,
SNYDER & ASSOCIATES, INC.



Shawn Duke, PE
Project Manager/Engineer