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## MEMORANDUM

Date: April 2, 2024  
To: Michael Elabarger  
From: Jacqueline Thompson, PE  
Subject: Reserve at Mitchell Mill  
PSP 23-03, 3rd Submittal  
Town of Rolesville, NC

This memo summarizes the review of the Preliminary Subdivision Plat submitted by Strong Rock Engineering Group, dated 03/01/24 (received 03/05/24).

We recognize some of the comments are related to the construction drawings and not necessarily a preliminary plat, however we believe it is prudent to provide these comments early in the process; these comments are not required for approval of this submittal and have been identified separately than comments directly related to the preliminary plat submittal comments.

### Sheet C-1.0:

1. Based on a Town Board meeting agenda, the greenway quantity for this project was a condition of the zoning; this calls for 2.3 miles +/- of greenway. What is being provided according to the site information table is substantially lower than that. Parks and Rec will make the final approval but please explain the discrepancy. Confirm parcel information.
2. Please include the following sheets with the next submittal:
  - a. Signed sealed survey/TOPO
3. Confirm what utility improvements will be required along Jonesville Rd and Mitchell Mill Rd, and confirm if these will be separate plans or included in future submittals.

### Sheet C-5.0:

4. Show setback table or add note to reference to see cover for setback requirements. (LDO Article 3.1.2)
5. Add the greenway to the legend.
6. Show buffers for Commercial Lot between commercial and residential zoning.

### Sheet C-5.1:

7. Town of Rolesville uses the terminology "side path". Revise to reflect the Towns standard terminology.

8. Side paths should remain 10' wide and taper after pedestrian ramps and crosswalks. The pedestrian ramps should match the largest width of adjacent greenways/sidewalks. Revise to reflect this condition.
9. Remove the public drainage easements from single family calculations for each lot.
  - a. This comment applies to multiple sheets.

Sheet C-5.2:

10. Remove the proposed public drainage easement from the buildable area calculations for each lot.
  - a. This comment applies to multiple sheets.

Sheet C-5.3:

11. Lots 111 through 113 appear to cross in the Stream H Buffer. Remove lot areas inside the stream buffers.
12. The retaining wall along Lots 111 through 113 is inside the inner stream buffer. Revise design as BUA is not allowed inside the inner stream buffer.
13. Confirm intent for open space on Lot 109.
14. Label frontage improvements on Gro Peg Rd that will be occurring or call out the sheets they will be defined on.
15. Stream E is being cut in half and cut off from its drainage area. Confirm if the intent is to install a culvert. It appears there is a private drainage easement being provided; clarify how drainage will get from one side to the other.

Sheet C-5.4:

16. Confirm if improvements to the bridge on Jonesville Rd are being completed as part of this project. Sidewalk and Side path cannot just end, and the continuity needs to be thought through. Please clarify intent.
17. Please review and revise the lane layouts for Jonesville Rd. A shared turn lane along a road with no turning options seems unnecessary, and a possible issue through an intersection.
18. Please confirm and label side setbacks.
  - a. This comment applies to all sheets.

Sheet C-5.5:

19. The overhead power along Jonesville Rd will need to be relocated with the addition of this right only turn lane.
20. The private R/W's are not a consistent width. Please label accordingly.
21. Label the buffers for Commercial Lot between commercial and residential zoning.

Sheet C-5.6:

22. Label the dashed line behind Lots 110 and northeast to clarify what it represents.
23. Continue the curb and gutter through crosswalks.
24. Show and label the buffers for Commercial Lot between commercial and residential zoning.

Sheet C-5.7:

25. Clarify the intent for the space south of the Street J cul-de-sac. The sidewalk should not just end unless justified for future improvements or the use of this space is understood.

Sheet C-5.8:

26. Stream G is being cut in half and cut off from its drainage area. Confirm if the intent is to install a culvert. It appears there is a private drainage easement being provided; clarify how drainage will get from one side to the other.

Sheet C-5.9:

27. Please label and dimension all buffers/setbacks. Show and label buffers for Commercial Lot between commercial and residential zoning.

Sheet C-6.0:

28. Confirm the following waterline sizes:
  - 12" for Road I & J Corridors
  - Waterline for Jonesville Rd
  - Mitchell Mill Rd

Sheet C6.2:

29. Label the easement to SCM #5 between Lots 79 & 80.
30. Avoid unnecessary wetland impacts when possible. Revise the outfall of SCM #4 so the easement doesn't impact the wetlands.

Sheet C-6.4:

31. Pull the outfall behind Lots 92 & 93 back so that drainage easement is out of 100-year floodplain.
32. The proposed wetland impact near EX SSMH #11 is not included in wetland impacts on Existing Conditions Sheet C-3.0.
33. Confirm if the line along Jonesville Rd, behind Lot 102, is a proposed retaining wall, and label accordingly.
34. The sewer is being shown going under the proposed retaining wall near Jonesville Rd, behind Lot 102; consider alternative design options if possible.
35. Avoid wetland impact from outfall behind Lot 102. The outfall is designed to go through or under the retaining wall. Confirm this will be the designed intent.
36. A 5:1 access to the easement is desired for maintenance; confirm if the design will allow this or if a headwall is required.

Sheet C-6.5:

37. Please verify if the SCM access and maintenance easement continues behind SCM 7.
38. Label the storm easement and/or SCM access easement near Lots 83 – 87.
39. There is no fire truck access along Public Alley 2 due to 16' alley, if parking allowed. Please review and adjust accordingly.

Sheet C-6.6:

40. All fire hydrants outside of the proposed public R/W will require an easement.
  - a. This comment applies to multiple sheets.
41. SSMH #46 is currently 40' deep; Please review if other options are available. Additional easement width may be required.
42. The hydrant is located on Lot 48 property; consider shifting slightly to place on property line.
43. COR to provide final sewer approval but sewer will need extended on Street S for future development.

Sheet C-7.1:

44. The private drainage easement for OCS #408 to FES #320 is crossing the public sewer easement. COR to provide final approval.
45. Label a few more contours for clarifying existing and proposed grades.

Sheet C-7.6:

46. Verify that all wetland impacts are included in the existing conditions sheet calculations.
47. Make sure to include all outlets within the buffer in permitted impacts; adjust the location of FES #309 if possible to avoid impact.

Sheet C-7.7:

48. Please confirm if Jonesville Rd improvements will be part of this plan set. If so, include typical sections and the design for utilities.

Sheet C-7.8:

49. Please confirm all road drainage coming from the site is ran through a SCM.
50. Label a contour for clarity near the parking lot off Street C. Clarify which direction drainage occurs.

Sheet D-1.0:

51. Please clarify if the typical pavement section shown is to be used on all roadways or just alleys.
52. Please confirm if the intended cross-slope for roads is the shown 2.08% or if this is a typo.

**Construction Drawings:**

Please consider the following for CDs; These comments are shown as green in the markups and are not required for approval of the preliminary plat:

Sheet C-5.0:

- A. Provide retaining wall details or label as designed by others for clarification.
- B. Confirm the style of curb and gutter for the site; consider if the curb style will change with single family vs townhome and if there will be driveway cuts; please include details accordingly.
  - a. Referencing the Town's Standard Manual will provide guidance to start.

Sheet C-5.1:

- C. Review the overhead power to confirm if there is an easement that could affect grading or layout.

Sheet C-5.7:

- D. Conditional zoning states a left turn lane shall be provided from Jonesville Rd onto Mitchell Mill Rd.

Sheet C-7.0:

- E. The storm drainage package review will be required during CDs and should include 10-year storm, gutter spread, pre-post maps, impervious maps, and Inlet DA maps. For any culverts, we will also review the 25-year storm.
- F. In efforts to collect drainage onsite for stormwater management, consider adding rear yard swales.
  - a. Roof drainage will also need collected and managed.
  - b. This comment applies to several areas and several sheets.

Sheet C-7.1:

- G. Plans show the drainage area behind Lots 155+ going to Jonesville Rd. NCDOT approval will be needed for this.
- H. During CD's show the lot drainage routes. When side or rear drainage is crossing two or more lots, drainage easements are required.
  - a. This comment applies to all grading and drainage sheets.

Sheet C-7.8:

- I. Continue the curb and gutter around this entire lot to prevent this area running off and add a structure to collect.

Sheet C-7.10:

- J. With the CD set, street and utility profiles will be required. Please make sure to include the following labels:
  - c. Minimum cover over pipe
  - d. Minimum separation between crossing pipes
  - e. Pipe sizes, lengths, and slope
  - f. Manhole labels including rim and inverts
  - g. Existing ground and proposed ground
  - h. Vertical curve lengths shall be in increments of 50'
  - i. K values and maximum street grades shall be defined by terrain classification per NCDOT Subdivision Roads Minimum Construction Standards

Overall project:

Think through phasing for the project that related to street and lot development, but also utilities and drainage/stormwater management. If phasing will be a part of this project, a phasing plan should be included, and phase lines should be reflected on all sheets so site improvements and utilities can be confirmed for constructability.