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MEMORANDUM

Date: **01/04/2024**
To: Michael Elabarger
From: Brian Laux
Subject: Reserve at Mitchel Mill
PSP 23-03, 2nd Submittal
Town of Rolesville, NC

This memo summarizes the review of the Preliminary Subdivision Plat submitted by Strong Rock Engineering Group, dated 12/05/23 (received 12/05/23).

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 the plat and have been identified separately than comments directly related to the Site Plan submittal comments.

Sheet C-1.0:

1. Update the submittal name and number to the correct one: PSP-23-03.
2. Confirm parcel information. According to IMAPS, there is only one pin for this property, not two, and the acreage varies from what is currently shown in the Site Information.
3. Correct the location address (5109 not 5019).
4. Break down setbacks for each zoning and make sure they match LDO Article 3.1.2. (RM, SF, and TH)
5. Confirm the proposed lots. What is currently shown does not match MA 22-06.
6. Please include the following sheets with the next submittal:
 - a. - Signed sealed survey/TOPO
 - b. - Site Details
 - c. - Typical Street Sections
7. Confirm what utility improvements will be required along Jonesville Road and Mitchell Mill Road. Will these be separate plans or included in future submittals?
8. Add greenway quantity as it was a condition of the zoning 2.3 miles plus/minus required per TB agenda

Sheet C-3.0:

9. Please add curve information for existing adjoiners or master boundary.
10. Please add symbol(s) for survey monuments/irons to your legend.
11. Label all ROW widths.
 - a. This comment applies to all sheets.
12. Add bearing and distance for line segment in the SE corner.

Sheet C-4.0:

13. #2 label is pointing to an open area. Revise location or turn layer on for demo'd object.
14. Please include wetland impacts in the demolition plan.
 - a. Labeling the wetland impacts also applies to all other sheets.

Sheet C-5.0:

15. Following NCDOT's minimum design criteria, minimum centerline radii are as follows:
 - a. Local Roads: 230'
 - b. Collector Roads: 310'
 - c. Please review and revise accordingly.
 - d. Town of Rolesville to decide what they will allow for min radius on public alleys.
16. Based on the Buffer determination letter: Streams A "Harris creek", B, E, F, G upper, G lower, and H all are subject to Buffers. (Buffer determinations apply to all sheets)
17. Wetland buffers should be shown and identified on all sheets. Wetland impacts to be labeled and identified.
18. All Street centerlines to meet NCDOT standards. (min radii)
19. Show setback table or reference cover. (LDO Article 3.1.2)
20. Show buffers for Commercial Lot between commercial and residential Zoning
21. Add the greenway to the legend, if not labeling

Sheet C-5.1:

22. Based on the Buffer determination letter Streams A "Harris creek", B, E, F, G upper, G lower, and H. All above are subject to Buffers. Buffers to be shown and labeled. This comment applies to all sheets.
23. Stream determination, Stream D no buffer, what are the plans for wetlands.
24. Town of Rolesville uses the terminology "side path".
 - a. Side paths should continue to pedestrian ramps and crosswalks.

- b. cross walks on Rolesville Road, major NCDOT road will need approval from NCDOT. (applies to all NCDOT road crossings) Flashing light may be required by NCDOT.
- 25. The SCM access easement is inside an existing sewer easement on site. Please review and revise accordingly.
- 26. MUP path should taper down to 5' wide after the handicap ramps revise accordingly.
- 27. A stop sign is needed at the intersections marked up on the plans.
- 28. Label the ROW width on Jonesville Road.
- 29. greenway not really connected to another greenway. (is this from private use.)

Sheet C-5.2:

- 30. a. The proposed greenway is inside of your wet pond. Revise.
b. showing overlapping Type II Landscape Buffer and SCM maintenance and access easements. Proposed retaining wall inside easement for SCM.
- 31. Please label and dimension all buffers applies to all sheets.

Sheet C-5.3:

- 32. Review and revise the SCM access easement; it is currently crossing private lots.
- 33. Review and revise wall locations; currently crossing private properties.
- 34. Confirm lots meet the minimum width requirements in the LDO and are therefore buildable. Review and revise.
 - a. This comment applies to all lots and therefore multiple sheets.
- 35. Please label any road improvements on Gro-Peg Road, including buffers.
- 36. Please label and dimension all buffers.

Sheet C-5.4:

- 37. SCM embankment cannot be in CORPUD easement. Please Revise.
- 38. Please confirm and label side setbacks.
 - a. This comment applies to all sheets.
- 39. Your proposed greenway is inside of your wet pond. Revise
- 40. Bridge, Walk, and Road are not shown on this sheet.
- 41. Please confirm access to lots bordering multiple roads. This applies to all lots.
- 42. Update the lane markings on Jonesville Road heading south.

Sheet C-5.5:

- 43. Overhead Power will need to be relocated with the addition of this right in only turn lane.

44. LDO states a minimum of 30' between Townhomes and this is not met throughout the site. Review and revise.
45. Update lane markings heading northbound on Jonesville Road.
46. Fire truck turning min. required. radius is 28' for standard tee turn around not met please revise.

Sheet C-5.6:

47. Please add a label for the future commercial section.
48. Label and dimension all buffers/setbacks/easements.
49. Confirm these lots meet the minimum dimension requirements.

Sheet C-5.8:

50. Public easements are located on private lots. Revise design.

Sheet C-5.9:

51. Please label and dimension all buffers/setbacks.

Sheet C-6.0:

52. Confirm the following waterline sizes:
 - 12" for Road I & J Corridors
 - Waterline for Jonesville Rd.
 - Mitchell Mill Rd.
53. Based on the Buffer determination letter Streams A "Harris creek", B, E, F, G upper, G lower, and H. All above are subject to Buffers. Buffers to be shown and labeled. This comment applies to all sheets.
54. Wetland Buffers should be shown and identified. Wetland impacts should be identified.

Sheet C-6.1:

55. Please revise to show a waterline connection to Jonesville Rd. The current design has two blow offs and no connection to water. Please include the size of the waterline and the proposed material.

Sheet C6.2:

56. The waterline will not be able to bend around this cul-de-sac as proposed. Consider ending it straight in to save on pipe and fittings as well.

Sheet C-6.5:

- 57. SCM Easement is cut in half by a retaining wall. Revise.
- 58. Label storm easement or SCM easement.

Sheet C-6.6:

- 59. Water and sewer connections, as well as hydrants, will need to be provided to the future commercial lot.
 - a. This comment also applies to Sheet C-6.9.
- 60. If the intent is that street and utilities are to be connected to and extended in the future, utilities need to be extended to the property line.

Sheet C-6.8:

- 61. The waterline on street A will need to connect to the waterline in Mitchell Mill Rd. Update labels to match the new condition.
- 62. Please show the waterline along Mitchell Mill Rd. and include size and material label.

Sheet C-6.9:

- 63. Water and sewer connections, as well as hydrants, will need to be provided to the future commercial lot.

Sheet C-7.0:

- 64. Based on the Buffer determination letter streams A "Harris creek", B, E, F, G upper, G lower, and H is all subject to Buffers. Buffers to be shown and labeled.
- 65. Wetland Buffers should be shown and identified if wetland impacts are proposed.

Sheet C-7.1:

- 66. wetland will need to be identified as what is being impacted, NCDEQ permit.
- 67. Label a few more contours for clarity Existing and Proposed). Grading is very hard to follow.

Sheet C-7.2:

- 68. SCM easement needs to encompass the dam embankment in addition to allow room for maintenance.
- 69. Wetland and stream Buffers need to be shown to avoid grading within the limits or are you proposing wetland and stream impacts in this area with permit.
- 69a. showing overlapping Type II Landscape Buffer and SCM maintenance and access easements proposed retaining wall inside easement for SCM.

70. How are you planning to get greenway across emergency spillway, look at alternate route.
71. 16ft of grid could cross property line, Temporary construction easement?
72. The proposed swale in this area for rear will require an easement when crossing (2) or more lots.
73. Label a few more contours for clarity Existing and Proposed). Grading is very hard to follow.

Sheet C-7.3:

74. Review the retaining wall may not be necessary.
75. SCM easement needs to encompass the dam embankment in addition to allow room for maintenance.
76. Wetland Buffer needs to be shown to avoid grading within the limits or are you proposing wetland impacts in this area with permit.
77. When the driveways are to be located on the high side, there will be storm conflicts with driveways.
78. Label a few more contours for clarity Existing and Proposed). Grading is very hard to follow.

Sheet C-7.4:

79. SCM easement needs to encompass the dam embankment in addition to allow room for maintenance.
80. Wetland Buffer needs to be shown to avoid grading within the limits or are you proposing wetland impacts in this area with permit.
81. Label a few more contours for clarity Existing and Proposed). Grading is very hard to follow.
82. How are you planning to get greenway across emergency spillway, look at alternate route.
83. Move the outlet pipe of SCM #7 as it is too close to an existing sanitary sewer manhole.

Sheet C-7.5:

84. SCM easement needs to encompass the dam embankment in addition to allow room for maintenance.
85. Wetland Buffer needs to be shown to avoid grading within the limits or are you proposing wetland impacts in this area with permit.
86. Label a few more contours for clarity Existing and Proposed). Grading is very hard to follow.
87. How are you planning to get greenway across emergency spillway, look at alternate route.
88. Move the outlet pipe of SCM #7 as it is too close to an existing sanitary sewer manhole.
89. Drainage swales and easement when crossing (2) or more lots.

Sheet C-7.6:

90. Drop inlets are required for drainage.

91. The outfall structure is to remain outside of zone 1 buffer for the stream.
92. SCM easement needs to encompass the dam embankment in addition to allow room for maintenance.
93. Wetland Buffer need to be shown to avoid grading within the limits or are you proposing wetland impacts in this area with permit.
94. Road drainage should be collected by SCM, not bypassed.

Sheet C-7.7:

95. Will Jonesville Road improvements be part of this plan set?
 - sections
 - design (utilities/road)

Sheet C-7.8:

95. Road drainage from on site should be run through SCM.
96. The outfall should remain out of zone 1 buffer when possible.
97. SCM easement needs to encompass the dam embankment in addition to allow room for maintenance.
98. The Wetland Buffer needs to be shown to avoid grading within the limits or are you proposing wetland impacts in this area with permit.

Sheet C-7.9:

99. A junction structure is needed when alignment changes.

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 intent for curb and gutter. Is all curb to be standard with driveway cuts? What about in the townhome area?

Valley curb is to be used per design manual (Response states this will be handled at CD Level
Valley curb is preferred by the Town.)

Sheet C-5.1:

- C. Does this OHP have an easement on it that could affect grading or layout on these lots?

Sheet C-5.5:

- D. What are the paved paths at the rear of townhome lots? If they are designed for vehicles, then they are being blocked by the parallel on street parking at multiple locations. Define intent and revise at CD's.

Sheet C-5.8:

- E. Conditional zoning states providing a left turn lane from Jonesville onto Mitchell Mill Road Is a multi-directional lane sufficient.

Sheet C-7.0:

- F. 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.
- G. 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.
 - c. The Plan shows all the DA's draining to Jonesville Road, NCDOT approval needed to do so.

Sheet C-7.1:

- H. CB needed to avoid drainage through intersection, Standard practice TYP.
- I. During CDs show the lot drainage routes side or rear when crossing more (2) or more routes, typ.
- J. The Plan shows all the DA's draining to Jonesville Road, NCDOT approval needed to do so.

Sheet C-7.2:

- K. CB needed to avoid drainage through intersection, Standard practice TYP.
- L. During CDs show the lot drainage routes side or rear when crossing more (2) or more routes, typ.

Sheet C-7.3:

- M. During CDs show the lot drainage routes side or rear when crossing more (2) or more routes, typ.

Sheet C-7.5:

- N. CB needed to avoid drainage through intersection standard practice.
- O. DI needed to avoid drainage through intersection standard practice.
- P. During CD show the LP and identify how this area is draining.

Sheet C-7.6:

Q. CB needed to avoid drainage through intersection standard practice.

Sheet C-7.7:

R. CB needed to avoid drainage through intersection standard practice.

Sheet C-7.8:

S. CB needed to avoid drainage through intersection standard practice.

Sheet C-7.10:

T. With the CD set, street and utility profiles will be required. Please make sure to include the following labels:

- d. Minimum cover over pipe
- e. Minimum separation between crossing pipes
- f. Pipe sizes, lengths, and slope
- g. Manhole labels including rim and inverts
- h. Existing ground and proposed ground
- i. Vertical curve lengths shall be in increments of 50'
- j. K values and maximum street grades shall be defined by terrain classification per NCDOT Subdivision Roads Minimum Construction Standards

Overall project:

Will this subdivision be phased? If yes, think through phasing for not only streets and lot development, but also utilities and drainage/stormwater management. 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.