

## MEMORANDUM

**Date:** 08/31/2022  
**To:** Michael Elabarger  
**From:** Jacque Thompson, PE  
**Subject:** 503 South Main Street  
SP 22-06, 1<sup>st</sup> Submittal  
Town of Rolesville, NC

This memo summarizes the review of the site plan submitted by Gettle Engineering and Design, PLLC, dated 07/26/22 (received 08/05/22).

### Cover Sheet:

1. Please verify values are correct in the Public Improvement Quantities table.

### Sheet C2:

2. Ensure the property information for both this site and surrounding parcels are provided.
3. Please include bearing and distance on the property added to the south.
  - a. This also applies to Sheet C3.
4. Please verify if there is an existing drainage easement along the back of residential lots on the Storage Max VIII property to the south. If so, please indicate it on the plans.

### Sheet C3:

5. Road improvements on Main Street should be incorporated into plans and clearly shown since it directly impacts this site; please coordinate with the Town to get access to the plans and the engineer on the Main Street project.
  - a. Based on the proposed islands in the road improvement, please verify if a left turn can be made at the drive connecting to US Highway 401 – S. Main St.
6. The radii of the drives that connect to US Highway 401 – S. Main St and Wall Creek Drive are proposed to be updated and therefore the pedestrian ramp leading across these drives will need to be updated to match grades.
7. A 30' radius is required to tie into NCDOT ROW. Please adjust drives as necessary.
  - a. A minimum 28' radius is needed for emergency response unless Fire approves otherwise; please send an exhibit to confirm truck routes internally (fire and trash).
8. Curb transitions (from 30" to 24") should occur on the site, not within the ROW. Adjust transition locations as necessary.
9. The southern side of the drive that connects to Wall Creek Drive appears to have existing curb around it's radii. Is the intent to connect? Please verify and update plans as needed.

10. The wall around the bioretention pond is in the access easement and is located at back of curb. Please adjust to ensure there is enough space for the wall to be constructed, and that it remains outside of the easement.
11. The existing fence on the southeastern side of the property should be consistently labeled as such.
12. Please connect the proposed fence to the existing fence on the southern side of the site.
13. The bioretention pond appears to be locate inside the landscape buffer. Please adjust as needed to ensure it remains outside of the buffer.
14. The drive on the east side of the site is connecting to existing pavement that does not have curb. Please taper the curb to match with existing.
15. Please label the driveway access widths.

Sheet C4:

16. Please confirm existing storm system; according to NCDOT plans for Main Street, it appears there is a possible underground JS and 18" storm pipe that are not currently shown in these plans.
  - a. A 20" RCP and a 20" FES are shown in the southern corner of this site; however, it appears as if these should be 18". Please verify.
17. Spot elevations at tie in locations should be shown.
18. Spot elevations for sidewalk and curb elevations should be shown to confirm pedestrian accessibility requirements are met.
19. Consider adding some slope in the direction of the storm inlet in the northwestern parking lot.
20. Please confirm ADA ramps are less than 2% in all directions.
21. The 414 contour at the northern portion of the building appears to be tying into the 415 existing contour. Please adjust contours as needed.
22. The building FFE is shown as 414, however it appears as if the proposed contours near the building are tying into existing contours within the building. Please review grading and adjust as needed.
23. It is our understanding that the existing tree on the north side of the site is a tree that needs to be preserved and protected. Confirm that the construction of the parking lot and the excavation that will need to occur to install the curb and pavement section will not impact the roots of this tree.
24. Grades may have to be adjusted for the pedestrian ramps at the access drives. Please add spot elevations at tie in locations around the radii.
  - a. This applies to all pedestrian ramps at the access drives.
25. Please ensure the grading behind the southern portion of the building are being accurately portrayed. There appears to be a 413 contour with a spot elevation directly behind it (in the uphill direction) that is a lower elevation than 413.
26. Please label the material used for the roof drain leader.
27. Please confirm the curb tie in location at the drive connecting into Wall Creek Drive. Please add spot elevations in this location.
28. A catch inlet should be provided prior to the intersection at the drive connecting into Wall Creek Drive to collect drainage and help prevent it from getting onto Wall Creek Drive.
29. Top and bottom of wall elevations should be provided.
30. Please provide the elevation of the storm structure located in the pond.
31. The grading proposed at the southeastern portion of the site is unclear. The last contour shown is 408, which is lower than the existing 409 contour. Does a low point get created, or is the intent for the 408 contour to create a swale between the 409 contours?
32. It appears that the FES coming out of the pond is at an elevation of 407. Please clarify where this water is going.
33. The grading for the bioretention basin should be shown and contours clearly labeled. Please also indicate how the proposed contours will tie into existing.

34. Please confirm if there is enough cover above the pipes at structures. The design currently appears to have less than the required 2ft minimum cover.

Sheet C5:

35. Please provide crossing information where water and storm drains cross to confirm there are no conflicts.
  - a. Please confirm the minimum horizontal and vertical separation between pipes are being met.
36. Proposed manholes should be shown on plans.
37. The bold text used for the notes is difficult to read, consider adjusting the text to be more legible.
38. If this submittal is acting as the construction drawings for this private site, profiles for utilities will be required for review. If a separate submittal is intended, disregard this comment.

Sheet C6:

39. For all sections on this sheet, please include existing conditions in the area surrounding where you are cutting. According to Google it appears that, depending on where this actual manhole is located, there may be both bituminous and concrete needing removed.
40. The width of the cut and patch for SS line installation in the SS Extension – Existing Conditions section should be indicated.
41. In the SS Extension – Utility Plan section the existing sewer MH should be defined as public or private.
  - a. All existing pipes going into the MH and their direction(s) also need to be shown.
42. Please dimension the limit of disturbance in the SS Extension – Erosion Control section.
43. The existing manhole is currently not showing in the SS Extension – Erosion Control section. Please turn it on/show this manhole.
44. The bold text used for the notes is difficult to read, consider adjusting the text to be more legible.

Sheet EC1:

45. Please use different line types for the LOD and DA to keep plans clear and easy to understand.
46. In the southern portion of the site there appears to be items being added that aren't included in the current limits of disturbance. The limits of disturbance should extend to all areas that will be disturbed.
47. There is a hydrant shown that is not connecting to anything. Please freeze it from this sheet.
48. Please add additional topography to show the drainage flow for the outlet of sediment basin 1.
49. Please reference what plan sheet the sewer line extension is show on.

Stormwater Package

50. Please include 10-year HGL for pipes and structures, DA for inlets, and DA and impervious for predevelopment.
51. Please verify DA for post development and adjust as needed. The drainage area should extend to the back of retaining wall. Please also verify if the area on the drive connecting to US Highway 401 – S. Main St is bypass or not.

