



February 3rd, 2025

Town of Rolesville Planning
c/o Michael Elabarger
PO Box 250,
Rolesville, NC 27571

Subject: **The Preserve at Moody Farm**
CID-24-09 – V1 Comment Response Letter

Dear Mr. Elabarger,

Please find below the review comments received via method received dated 01/06/2025:

Town of Rolesville Planning Comments:

1.Comment: Provide a Written Response to ALL comments that clearly informs staff IF, HOW, Where (Sheet #) the comment was addressed.

Response: Written responses to all comments will be provided.

2.Comment: Add revision dates to all submittal materials.

Response: Revision dates have been added to all submittal items.

3.Comment: Bubble/cloud all changes / revisions made.

Response: Revision clouds are incorporated into this submittal. Note that revision clouds are not provided for plan updates to the erosion & sediment control sheets due to Wake County being the delegated authority on this topic.

4.Comment: Add "CID-24-09" to the Cover sheet and on every plan sheet.

Response: CID-24-09 has been added to the project title block.

5.Comment: Provide a Lighting Plan and details or explain on what sheets that information is included; Sheet Index has no reference to Lighting.

Response: A Duke Energy work order, WO# 56716141, has been established for the project. We expect to have a site lighting plan for the next Town of Rolesville submission.

6.Comment: Clarify/explain/revise to demonstrate if the Greenway stops short of the property line near Open Space 6 in Block B. Staff suggests solution for this area to creating a wide, "blanket" Town Greenway Easement in this area so as to allow spatial options and opportunities for a/the future connection to the adjacent property.

Response: A blanket easement has been provided and can be see on sheet C4.1.

7.Comment: Please discuss with Staff an/or make revisions that provide Pedestrian access to the SCM/pond from the provided Greenway.

Response: This item was discussed in the January TRC meeting and determined to be a suggestion by the reviewer. The proposed greenway provides access/connection to SCM #1, #2, and #4. No connection is proposed to the existing pond to the northeast due to grading and property limit constraints.

Engineering Comments:

1.Comment: The Town of Rolesville project number for this project has been assigned as CID 24-09. Please include this number on the cover sheet of all future submittals.

Response: CID-24-09 has been added to the project title block.

2.Comment: Additional information will need to be provided for a complete review. Please include greenway profiles as well as a storm package with information such as HGLs, gutter spread, and pre-/post- development maps.

Response: Greenway profiles have been developed in this submittal and can be seen on sheets C15.0 and C15.1.

The stormwater impact analysis (SIA) report has been attached with this submittal. Drainage maps and stormwater conveyance calculations can be found within this report.

3.Comment: Provide a north arrow for the vicinity map on the cover sheet.

Response: A north arrow has been added to the vicinity map on the cover sheet.

4.Comment: A few of the adjacent parcels do not show the correct owner/PIN/etc. Ensure adjacent property information is up to date.

Response: Adjacent property information is now current.

5.Comment: If the existing dirt drive on the south side of the property is to be removed, it should be indicated as such on the demolition sheet and not shown on other sheets throughout the plan. If the dirt drive, or any portion of the dirt drive, is to stay, it should be shown on all sheets throughout the plan set.

Response: The dirt drive has been labeled to be removed on the demolition sheet. Plan sheets layers have been updated respectively.

6.Comment: Please update notes A and B under General Notes, as they currently contain conflicting information.

Response: Notes A and B have been revised to remove conflicting information on the general notes sheet.

7.Comment: Note F under General Notes points to sheet CD19, however there is no sheet CD19 in this set of plans. Please change this to the correct sheet number.

Response: The sheet number seen in Note F has been updated.

8.Comment: Ensure erosion control follows NCDEQ design criteria. There are areas where the silt fence appears to be handling a decent amount of area without another erosion control measures. Table 6.62a in NCDEQ's Nc Erosion and Sediment Control Planning and Design Manual specifies the maximum areas silt fence can be designed for without additional measures. Consider adding diversion ditches routed towards the proposed sediment basins.

Response: Noted. We are currently working with Wake County to ensure design requirements are met on site for erosion and sediment control.

9.Comment: Grading may not extend beyond the silt fence or limits of disturbance. Please adjust grading and/or silt fence as needed. This comment applies to all erosion control sheets.

Response: The silt fence has been updated to include/contain all proposed grading.

10.Comment: Please clarify what the line east of SB#1 represents (see markups).

Response: The line noted was a construction line that was meant to be on a no plot layer. The line has been removed.

11.Comment: Dewatering bag should not be placed in a way that the water will naturally flow back into the sediment basin.

- a. This comment also applies to sheet C3.3 and C3.4.

Response: Noted. We are currently working with Wake County to ensure design requirements are met on site for erosion and sediment control.

12.Comment: There is a callout indicating a pipe and structure should be installed, but the pipe and structure are not showing on the plans. Please show the linework related to this callout.

- a. This comment also applies to Sheet C3.3 and C3.4.

Response: The pipe and structure are now showing on applicable plan sheets.

13.Comment: Specify how access to existing houses will be maintained throughout construction. If the existing dirt drive is to be maintained during Phase 1 of erosion control it should be shown on the plans.

Response: Amazon Trail will be maintained for Phase 1 of erosion and sediment control to allow access to existing homes. Breaks have been provided in the silt fence to allow access to private driveways.

14.Comment: Ensure silt fence outlets are located at low points along the silt fence.

- a. This comment also applies to Sheet C3.4.

Response: Silt fence outlets have been added to low points along silt fence.

15.Comment: Adjust the silt fence outlet and rip rap pad leaders by SB#5 to the correct locations.

Response: Leaders have been adjusted accordingly.

16.Comment: Add silt fence at the edges of the construction where stormwater is flowing towards.

Response: Additional silt fence has been added to these areas.

17.Comment: Adjust the skimmer and/or baffles in SB#4 so that the skimmer is not located behind the baffle.

Response: Skimmer has been moved so that it is not behind the baffle.

18.Comment: Please show the rip rap linework at the end of the rip rap pad callout by SB#3.

Response: Rip rap linework is now shown at SB #3.

19.Comment: Proposed grading must connect into existing grade.

- a. This comment applies to all sheets where grading is shown.

Response: Proposed pond grading has been revised to connect to existing grade.

20.Comment: Please show the linework for the rip rap at the end of the proposed culvert north of SB#1.

Response: Rip rap linework is now shown.

21.Comment: Baffles should be shown to remain in the sediment basins until wet pond conversion.

- a. This comment also applies to Sheets C3.8 and C3.9.

Response: Baffles are now shown accordingly.

22.Comment: Remove the inlet protection linework that is not around inlets and provide inlet protection around all inlets that do not have any.

- a. This comment also applies to Sheet C3.8.

Response: Inlet protection has been removed from areas that it is not applicable and added to structures where it was missing.

23. Comment: Please add additional contour labels northeast of SB#4.

Response: Additional contour labels have been added in this area.

24. Comment: Clarify what the line through the southwest corner of SB#2 represents. If it is a contour, it should be adjusted so as not to overlap with other contours.

Response: This contour has been trimmed to appropriately tie into existing grade.

25. Comment: Ensure the SCM access and maintenance easements are clearly labeled and identifiable throughout the plans. SCM easements should contain the entire SCM and provide a connection to a public R/W.

Response: SCM access easements have been labeled in C4.1-C4.4 and C6.1-C6.4 and connection to the public R/W has been revised.

26. Comment: Provide the bearing and distance on the lot line between Lots 24 and 25.

Response: Bearing and distance have been added to the lot line between Lots 24 & 25.

27. Comment: Impacted wetlands should be shown on the demolition plan and not on any of the other plan sheets.

Response: Any areas of wetlands that are to have permanent impacts have been identified on existing conditions/demo sheet and removed from applicable plan sheets.

28. Comment: Show linework for the existing driveway on the Benny L. and Connie G. Moody property.

Response: Linework has been added for existing driveway on the Moody property.

29. Comment: Ensure all dimensions are clear and easy to read.

Response: Dimensions have been adjusted to improve readability.

30. Comment: Show and label where Mulberry Tree Drive construction begins.

Response: Layers have been greyed back at the entrance to differentiate proposed construction from existing conditions.

31. Comment: Show and label the required concrete approach to the boardwalks along the greenway trail.

Response: Concrete approaches to the boardwalks along the greenway have been added and labeled.

32.Comment: Storm structures collecting road drainage at the intersection of Mulberry Tree Drive and Tansley Crest Loop are shown as being routed to WP#4. Please clarify how will this drainage be dealt with during Phase 1 since WP#4 will be built during Phase 2.

Response: Please see note L, under general notes, on sheet C2.0. Any mention of phasing in the plan set is platting related and not construction phasing.

33.Comment: Slopes are not to exceed 3:1 without additional steps taken for stabilization. Slopes of 3:1 or less are recommended.

Response: Slopes along roads at culvert crossings are 2:1 to minimize environmental impacts. See stabilization requirements listed on NPDES sheet (C3.15).

34.Comment: Ensure all low points are being collected in the proposed storm system.

Response: A structure was added in this location.

35.Comment: If grading is to extend onto an adjacent property, a temporary construction easement will be needed, and will be required to be shown on the plans.

Response: Grading has been revised in this area and a temporary construction easement has been added to the plans. Labels for the temporary construction easement can be seen on C4.2 and C6.2.

36.Comment: Extents of the headwalls should be clearly shown on plans. Ensure grading does not exceed 3:1 around headwalls.

a. This comment also applies to Sheet C8.5.

Response: Headwall grading has been revised at to NCDOT detail 838.22 standards and extents have been made more clear. The grading around the headwall is 2:1 in an effort to minimize environmental impacts, please see sheet C3.15 for stabilization requirements.

37.Comment: The easement around the culvert (HW FES 603 to EW 101) should be extended to include the entire storm pipe.

Response: This easement has been revised to encompass the entire storm pipe.

38.Comment: Grading for the parking lot must be shown on plans. Ensure any low points are being collected and routed through the storm system. Spot elevations may be required to help understand the grades/elevations/drainage.

Response: Parking lot grading has been added. Inset A has been added to ensure fine grading aspects are clear and readable in the plans. The parking area sheet flows drainage to the right-of-way so no additional drainage infrastructure is required.

39. Comment: Diversion ditch contours should tie in together properly and be kept to 3:1 maximum side slopes.

Response: Diversion ditch has been revised, and low spot has been removed. Permanent diversion ditches are to have 3:1 side slopes.

40. Comment: There is a sidewalk shown going through the intersection of Rolesville Road and Mulberry Tree Drive. This should be removed and shown as a crosswalk instead.

Response: Sidewalk has been removed, and a crosswalk has been added. The crosswalk can be seen on sheet C4.2.

41. Comment: There is grayed back linework shown on this sheet that is not shown on the existing conditions sheet. Please label the linework. If it is to be removed or relocated it should be indicated on the removals sheet.

Response: This area has been cleaned up and applicable items placed on demo layers. Please see existing conditions/ demo sheet C1.0 for additional notes in this area.

42. Comment: Ensure no low spots are being created without proper drainage structures where Mulberry Tree Drive ties into Rolesville Road.

Response: Grading has been revised where Mulberry Tree Drive ties into Rolesville Road.

43. Comment: Please indicate how access will be provided to the existing cemetery.

Response: A variable width access easement (with min. width of 20') has been provided and the grade on the approach to the cemetery from the cul-de-sac within the proposed easement has been reduced.

44. Comment: Add contour labels by CB 413. If this area is a high point. Are CB 413 and CB 412 needed? If it is not a high point, ensure water is draining towards the structures.

Response: This area is a low point, please see profile on sheet C9.1. Grading in this area has been revised and contour label added.

45. Comment: Existing contours should be clear and easy to understand. There are overlapping contours and contours ending in space. Please adjust plans to show the correct existing conditions.

Response: Additional and overlapping existing contours have been removed.

46. Comment: Clarify the intent of FES 420. If it is meant to outlet to the SCM, please adjust the pipe and FES accordingly. If not, it is suggested that the outlet be shifted so water isn't directed towards the pond embankment.

Response: This outlet is to bypass SCM #4. The pipe alignment has been revised so that separation is provided between the outlet and pond embankment.

47. Comment: While there is sufficient vertical separation, minimum horizontal separation between storm and the sanitary force main should be achieved where possible.

Response: The City of Raleigh had a comment similar to this with the V1 submittal, in the same area, concerning the 54" culverts, sanitary forcemain and long-term maintenance. The forcemain is currently being constructed. To satisfy the City of Raleigh's concern, casing is to be installed with the forcemain in this area. If future maintenance is necessary, storm drainage infrastructure will not need to be disturbed in this area.

48. Comment: Adjust proposed contours so that they do not overlap each other.

Response: Overlapping contours have been removed and contours have been adjusted to tie to existing grades.

49. Comment: Ensure pond outlines match those shown throughout the rest of the plans. Drainage areas should include pond extents.

Response: Drainage areas have been revised appropriately.

50. Comment: Ensure drainage area boundaries match what is shown on the grading and drainage sheets.

Response: Drainage areas have been revised appropriately.

51. Comment: Consider the placement of sanitary and water services and how they will actually be installed. Confirm there is enough room in the manholes and between the services/fitting for installation.

- a. This comment applies to all utility sheets.

Response: Services have been adjusted across the site to be shown in a constructable manner.

52. Comment: Where possible, services should be perpendicular to the main/lot.

- a. This comment applies to utility sheets.

Response: Services have been aligned perpendicular to main/lot, where possible. Although it was minimized, in several locations, sanitary manholes are utilized for service connection to system.

53. Comment: Ensure services do not conflict with storm structures.

Response: Services have been adjusted to not conflict storm drainage infrastructure.

54. Comment: It appears as if the "Downstream Structure" and "Upstream Structure" table headers have been flipped. Confirm and correct the labeling in the pipe summary tables.

Response: The headers have been corrected.

55.Comment: Remove the FES rim elevations from the tables.

Response: FES rim elevations have be removed from the schedules.

56.Comment: All storm pipes must have a minimum slope of .5%.

Response: The minimum pipe slope is 0.50%.

57.Comment: Storm pipes are to meet minimum cover requirements (2' minimum in paved areas).

Response: As discussed in the January TRC meeting, design constraints prevent 2' minimum cover at all locations. Any drainage pipes that do not meet a 2' minimum cover requirement are proposed to be Class IV. Any proposed Class IV pipes now have an asterisk in the C7.1 schedule sheet.

58.Comment: Ensure minimum drop requirements in storm structures are met. A minimum of .1' is required for angles between 0-45 degrees and a .2' drop is required for angles between 45-90 degrees.

Response: Structure drops have been updated accordingly to meet these minimum requirements.

59.Comment: Label tees/valves/etc. in both plan and profile views.

- a. This comment applies to all profile sheets.

Response: Labels have been added to all plan and profile sheets for tees, valves, etc..

60.Comment: Ensure elevations at tees line up across all profiles.

- a. This comment applies to all profile sheets.

Response: Tee elevations and locations line up across all profiles.

61.Comment: The force main on the Mulberry Drive profile does not match up with the extents shown in plan view. Ensure linework is consistent between plan and profile.

Response: The force main extents has been revised.

62.Comment: Ensure minimum separation requirements are met and properly labeled.

- a. This comment applies to all profiles.

Response: The sanitary invert has been updated to allow for 18" minimum separation. Additional dimensions have been added to show vertical separation between the waterline and storm drainage infrastructure. The sanitary sewer crossing on sheet C9.1 has been added.

63.Comment: The Tansley Crest Loop profile has two existing grades showing. Please clarify where the discrepancy is coming from. Ensure the proposed grade is tying into the correct existing surface.

Response: The Kalas Falls PH1 road, which Tansley Crest Loop is tying into, is currently under construction. That grade has been labeled on sheet C10.0 as proposed grade and the style changed accordingly.

Likewise, where Tansley Crest Loop ties into Kalas PH2 (at other side), the surface style and callout has been revised to proposed grade for clarity.

64.Comment: Sanitary sewer greater than 12' deep is to be SDR 26. Final approval of sanitary sewer materials will come from City of Raleigh.

Response: Pipe material greater than 12' in depth has been revised to SDR 26.

65.Comment: Grade change is not to exceed 3% without a vertical curve.

Response: All the grade changes shown in the plans that exceed 3% are in stopping conditions (at intersections and cul-de-sacs) where vehicles will be traveling at a very low speed. Because of this, we feel grade changes greater than 3%, but no more than 8%, will be adequate in these conditions.

66.Comment: Adjust road grading to ensure K values meet minimum requirements per NCDOT Subdivision Roads Minimum Construction Standards.

- a. This comment applies to all street profiles.

Response: All the K values shown in the plans that are less than 30 are in stopping conditions (at intersections and cul-de-sacs) where vehicles will be traveling at a very low speed. Because of this, we feel verticals curves with lower K values and shorter lengths will be adequate in these conditions.

67.Comment: Please adjust VC lengths to be in 50' increments.

- a. This comment applies to all street profiles.

Response: All the vertical curve lengths shown in the plans that are less than 50' are in stopping conditions (at intersections and cul-de-sacs) where vehicles will be traveling at a very low speed. Because of this, we feel verticals curves with lower K values and shorter lengths will be adequate in these conditions.

68.Comment: Show driveway locations on the landscaping plan to confirm there are no conflicts with plantings.

Response: The development of lots is not included in this plan set. Each lot will be custom built, and lot specific design items/elements will be provided at the time of building permits. A note has been added to sheet L1 for this item.

City of Raleigh Utility Comments

1.Comment: Please include water/sewer permit blocks on cover, utility and plan/profile sheets.

Response: Water/sewer permit blocks have been added to cover, utility, and plan/profile sheets.

2.Comment: Please update the permit blocks, attn contractors blocks and standard utility notes to the most recent versions. Once design is complete, please email me for the water/sewer permit numbers and Raleigh development fees associated with this development.

Response: Permit blocks, attn. to contractors block, and standard utility notes have been updated to the most recent versions.

3.Comment: This is going to be a larger easement than 30' with both a FM and gravity main located within it. 40' easement.

Response: This easement has been widened per discussion in emails between American Engineering and the City of Raleigh dated 1/10/2025 through 1/15/2025.

4.Comment: These may need to be in a casing considering that they are underneath the storm pipes.

Response: Pipe casing has been added at this location where the force main navigates underneath the 54" culverts. We have exchanged emails notifying the contractor of the force main that casing is required at this location.

5.Comment: SDR 26 PVC at this depth.

Response: Noted, material has been revised to SDR 26 PVC.

6.Comment: SDR 26 PVC at this depth.

Response: Noted, material has been revised to SDR 26 PVC.

7.Comment: SDR 26 PVC at this depth.

Response: Noted, material has been revised to SDR 26 PVC.

8.Comment: DIP

Response: Noted, material has been revised to DIP.

9.Comment: This sewer is exceptionally deep within the roadway. Are there opportunities to tweak the design to decrease the installation depth?

Response: The upstream clearance between sanitary sewer and storm drainage is driving the depth which is shown on sheet C11.0 between SSMH 2410 and SSMH 2411. Revising road grades to decrease the depth was considered but ultimately was not implemented due to the additional conflicts the change would cause downstream and the cut/fill imbalance that would be produced.

10.Comment: SDR 26 PVC at this depth.

Response: Noted, material has been revised to SDR 26 PVC.

11.Comment: SDR 26 PVC at this depth.

Response: Noted, material has been revised to SDR 26 PVC.

12.Comment: SDR 26 PVC at this depth.

Response: Noted, material has been revised to SDR 26 PVC.

13.Comment: The easement here based on depth alone would need to be 40'. With a FM also located within the easement this would need to at least be a 45' easement.

Response: This easement has been widened per discussion in emails between American Engineering and the City of Raleigh dated 1/10/2025 through 1/15/2025.

Sincerely,



Jakob P. Klein, P.E.
Project Manager
American Engineering Associates – Southeast, PA