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MEMORANDUM

Date: 06/30/23

To: Michael Elabarger

From: Jacqueline Thompson, PE

Subject: Parker Ridge
CID 23-06, 1st Submittal
Town of Rolesville, NC

This memo summarizes the review of the construction infrastructure documents submitted by BGE, dated 06/01/23 (received 06/06/23).

Sheet C0-0

1. Will there be plans to include enlarged demolition plan sheets similar to what was shown in the PSP-23-02 submittal? If so, please update the sheet list table and add sheets accordingly. If not, additional detail will need to be added to the overall sheet regarding demolition plans.
2. Please verify if the revisions and initial submittal dates located in the top right corner of the sheet are correct. This is the first CID submittal, yet a revision is being shown.
3. A lighting plan will be required as part of this submittal per LDO Section 6.6.F.

Sheet 1/4

4. Please ensure all easements are labeled. This comment applies to all subsequent missing easement labels.
5. Provide a label for the Right of Way for Redford Place Drive. This comment applies to all applicable sheets.
6. Existing conditions sheets should include the following information: metes and bounds of the property boundary, site size, information about the site and adjacent properties (PIN, owner information, Register of Deeds book-page number).
7. Please ensure all linework is labeled and/or shown in the key.
    a. There appears to be linework for a dirt road that is not labeled. Please label this linework on all sheets on which it is shown.
    b. The centerline of the stream should be labeled on all applicable sheets.
8. Verify if Long Melford Dr. extends onto the property. If it does, please show existing conditions including road name and Right of Way.

9. Verify the North arrow is consistent and pointing in the correct direction throughout the entire plan set.

Sheet 2/4

10. There is a dark unreadable symbol labeling a structure, please adjust text or linework so it can clearly be identified. Please fix on subsequent sheets where structure is present as well.

Sheet 4/4

11. A thick dashed line is shown by existing sanitary manhole #13329 to manhole #13372. Verify if this is the correct line type/thickness.

Sheet C1-4

12. There are multiple places throughout these plans where the text is overlapping, cut off, or difficult to read. Please adjust all applicable labels to ensure the plans are easily understandable and can be read in the field. This applies to all sheets.
13. Confirm why there are some wetlands shown in a different color. Please consider changing to match the other wetlands. If these wetlands are to be removed please note that on the plans.

Sheet C2-0

14. Please ensure the owner, Register of Deeds book and page number, and pin number is shown for all adjacent properties. This information should be shown on all site plan sheets.
15. There are a few streets (such as Alley 2 and 3) that do not match the street sections provided. The street sections and/or street dimensions should be updated to reflect the intended design.
16. The private and public alley cross-sections appear to be the same, is this the intent? If not, please update the cross-sections as needed.
17. The private and public alley cross-sections indicate a 20’ Right of Way, however the dimensions do not add up to that. Please adjust profiles or update Right of Way dimensions to accurately reflect the intent.
18. Long Melford Drive needs to be dimensioned as a collector road (60’ ROW with 35’ back to back) for continuity of the collector roadway. Please verify dimensions shown on the plans are correct.
19. All Right of Ways and existing road linework connecting into the site should be shown and labeled so it’s clear how those connections are being addressed. This comment applies to all sheets.
20. There appears to be multiple lines along the same path representing sanitary sewer easements. Please confirm the intent of the sanitary sewer easement running through the site. If the intent is to update the easement, this should be clearly noted in the demolition plans and the updated easement clearly shown throughout the site.
21. There are several dimension arrows and leaders throughout the plans that are not pointing to the correct location. Please correct and ensure all dimension arrows are accurately shown.
22. Please display and label the location of the existing pond to the southeast of the site.
23. Thank you for showing the future connection to Irina Drive on the south side of the site. Please show the existing ROW for reference.

Sheet C2-1

24. Please include the bearings and distance information for all streets, in addition to the curve radii. This applies to all site plan sheets.

25. Please ensure storm drainage easements are clearly labeled and indicated as being either public or private easements.
26. Right of Ways should be labeled as public or private. This applies to all sheets.
27. Please include signing and striping information for the entire site.

Sheet C2-2

28. There are wetlands shown on the plans that appear to be located in areas where construction is to occur. If these wetlands are to be removed, please ensure that it is noted on the demolition plans and that these wetlands are removed from the proposed plan sheets to avoid any confusion. This comment applies to all applicable sheets.
29. Both ends of the greenway to the western side of the site are currently ending abruptly and not connecting into anything. Are there plans for a future connection so as not to have a dead end? Please specify what the intent of this greenway is. This comment applies to Sheet C2-2 and Sheet C2-4.
30. There are multiple notes indicating that alignments will be confirmed/determined during construction drawing review. As this is the construction drawing submittal, these alignments will need to be determined and shown on the plans. Easements will be needed around public greenways.
31. Please verify if fire will require access to Alley 3. If so, a 28' minimum radius is required. Wake County Fire to provide final approval.
32. The existing walk along Redford Place Drive is not shown. Please show this walk so it can clearly be seen how the proposed walk will tie into existing.
33. The greenway to the north of Street C is not fully connecting into the proposed sidewalk. Please adjust linework to have the paths connect into each other.

Sheet C2-3

34. Please ensure all wall access easements are labeled.

Sheet C2-4

35. Specify the material to be used for the sidewalk.
36. Verify radii dimensions at the intersection of Alley 2 and Redford Place Drive.

Sheet C2-5

37. Include dimensions for the length of the parking stalls by Alley 4.
38. The centerline of the existing roadway that Long Melford Drive is connecting into does not line up with the proposed linework. Please clarify how this connection will be handled.
39. There is no existing sidewalk on the east side of long Melford Drive where it is proposed to connect on the south side of the property. Consider ending the sidewalk sooner and providing a pedestrian ramp to cross for a continuous path.

Sheet C3-1

40. The location of one of the structures along Street D does not match the structure location shown on the grading plan. Update the sheets to remain consistent.
41. The existing cleanouts should be abandoned in place if not being used for this development; the City of Raleigh will provide final approval for the sewer.

42. A few storm pipes, particularly the pond outfalls, are not being shown on the utility sheets. To maintain consistency please show these pipes.

Sheet C3-2

43. All utilities and storm networks are required to meet minimum horizontal separation requirements. Per the COR Public Utilities Handbook, a minimum horizontal separation of 10' is required between water and sewer and 5' is required from storm sewer. Please update plans to meet minimum requirements.
44. Work with the City of Raleigh on the location of the retaining wall adjacent to the sanitary sewer easement.

Sheet C3-5

45. The storm easement going around the SCM 2 outfall pipe is encroaching on the Neuse River Buffer. Please confirm if the intent was to disturb the buffer in this area. If so, make sure all required permits are submitted.

Sheet C3-6

46. Please verify the location of DI-411 and ensure that it will not interfere with the wall. The location on the sheets does not appear to be consistent between the utility and grading plans. In addition, due to its close proximity to the wall, it will need to be accounted for in the wall design.
47. The walls for the culvert by SMH-42 are crossing into the sanitary sewer easement. Adjustments will need to be made to keep the easement clear of any walls.
48. There are services along Long Melford Drive that are crossing over storm structure CB-409A. Please update the plans so any conflicts are avoided.

Sheet C4-1

49. To provide clarity as to where the water is draining, additional contour labels should be added, particularly at high and low points. This comment applies to both proposed and existing contours on all sheets that have contours shown.
50. Ensure all storm structures and pipes are labeled on the grading sheets. Pipe labels should include both size and material type.
51. All proposed contours should tie into existing contours.
52. Please include wall design information. If the wall is to be designed by others a note should be added to indicate this.
53. A proposed drainage easement is required on swales crossing more than two lots. There are multiple locations where drainage easements need to be added due to swales crossings multiple lots.
54. The Street D label is limiting visibility of the storm in that area, it is recommended that the text gets moved up or adjusted to increase visibility of the storm network.
55. Please review the angle of the pipes within the storm system and the direction of flow. Redirecting flow less than 90 degrees is not ideal.
56. Culvert design at all culverts needs to be shown with the plans/storm analysis. Design calculations are required for the 25-year storm for all culverts and HGLs need to be contained within the pipes.
57. There are several areas where construction is planned, yet the existing treeline is not shown as to be removed. Please update the demolition plan as needed to show items to be removed. Future

sheets showing the proposed conditions should not include the treelines that are to be removed, while existing condition sheets should show all existing conditions (including the treeline).

58. The City of Raleigh has specific grading requirements within their sanitary sewer easements for access. Please review and revise accordingly.

59. Any contours at high or low points should be labeled. There are multiple areas where there appears to be the possibility of artificial low points being created without a drainage inlet to collect from those points. Please ensure grading and storm structure placement allows for proper drainage so water doesn't pool up.

60. There appears to be an existing storm culvert east of lot 195. Please verify what elevation this culvert is set at. Will the proposed contours be able to get down to the invert elevation?

61. Confirm the intent for drainage at the low point of the retaining wall at Lot 204.

62. The slope of the proposed grade by FES-303 appears to be fairly steep. If possible, proposed grade should be sloped at a maximum of 3:1.

63. Please verify that the contours south of DI-316A are correct. They appear to be very close together in some areas and aren't tying in to the existing surface.

64. The ponds all appear to have multiple FES's with the same name. Please update so all structures have unique names.

Sheet C4-2

65. The existing storm linetype along Redford Place Drive appears to match that of the construction limits. Consider altering one of the linetypes to easily distinguish between the two.

66. There is gray thick linework by FES 302, clarify the purpose of this.

67. The existing storm shown along Redford Place Drive appears to end in the middle of the proposed sidewalk linework where Street E connects into Redford Place Drive. Please clarify if there is an existing structure or FES there. If so, please indicate how this will be handled so as not to interfere with the proposed walk.

68. Confirm the intent for drainage at the low point of the retaining wall located by the sanitary sewer easement.

69. The bottom of wall labels for the retaining wall located by the sanitary sewer easement are appearing as question marks.

Sheet C4-3

70. There are two storm structures labeled CB-316A and DI-316A. It is recommended that the names get adjusted to have unique numbers to avoid any confusion.

Sheet C4-4

71. Slopes by the southeast portion of Street F appear to be fairly steep. Where possible, proposed grade should be graded at a maximum of 3:1.

72. The storm easement going around the SCM 1 outfall pipe, as well as the outlet pipe itself, are encroaching on the Neuse River Buffer. Please confirm if the intent was to disturb the buffer in this area. If so, make sure all required permits are submitted.

Sheet C4-5

73. It is hard to tell what the contours look like at the intersection of Alley 4 and Long Melford Drive. Please adjust the DI-212A label so that grading can be clearly understood. If necessary, add contour labels.
74. A 10' minimum access around SCM 2 should be provided for maintenance. An access easement must also be connected to a public Right of Way in order for maintenance vehicles to have full access to the pond. This is a repeat comment.
75. Confirm the intent for drainage at the low point of the retaining wall located by Lot 128.
76. Grading by CB-220A is extremely steep. It is recommended that the grade not exceed 3:1.

Sheet C4-6

77. The FES-C1 label should be adjusted so the edge of the proposed wall can be seen.
78. There is thick gray linework by FES-C1. Please clarify the purpose of this and label on plans.
79. Additional top and bottom of wall elevations are needed at the walls by FES-C1 and FES-C2.
80. FES-C2 appears to be located in the proposed greenway. Please confirm intend and adjust plans as needed.

Sheet C5-0

81. There appear to be some labels on the sheets that don't apply to what is being shown. Please update or remove any labels that don't apply to what is shown on the erosion control plans.

Sheet C5-1

82. There is a road specified as "to be removed" on the northwest side of this plan sheet. This road extends onto adjacent properties- how will this removal be handled? Will a temporary construction easement be needed to remove the road?
83. There are several storm pipes and structures that are shown as being put in during Phase 1, however they aren't draining to any basins, are missing connecting structures, and are missing inlet protection measures. Is the intent for these to be built during Phase 2? Please clarify and update the plans as needed.
84. Please include sizing information for all proposed rip rap.
85. There are several points along the silt fence where water will flow towards that don't have silt fence outlets. Please include silt fence outlets at appropriate points along the silt fence to ensure erosion control measures will work as intended.
86. TD#11 starts outside of the construction limits and is shown going through the proposed silt fence. Please adjust construction limits and/or silt fence and diversion ditch to ensure stormwater management works as intended.
87. Please update RB #3 so that it ties into the existing surface. Contours should be labeled so the basin elevations can be easily understood.

Sheet C5-2

88. There are check dams shown along the diversion ditch to the west on this page. Please ensure check dams are to be placed at proper intervals along all diversion ditches.

Sheet C5-3

89. Please update RB #4 so all sides tie into the existing surface. Contours should be labeled so the basin elevations can be easily understood.

Sheet C5-4

90. There is a rectangular white box on the middle left side of the plan sheet that seems to be covering up the proposed linework.
91. RB #1 contours should be shown connecting into existing grade. The contours should also be labeled.
92. Please provide a construction entrance for access to the west side of Reford Place Drive.
93. There is currently silt fence shown going through the construction entrance on the east side of Redford Place Drive. The silt fence should be adjusted so trucks/equipment can access the site through the construction entrance.
94. Please confirm minimum requirements for the construction entrance are being met. As per the detail provided, minimum width is 25' and minimum length is 50'.

Sheet C5-5

95. Will any measures be taken to prevent sediment from getting onto existing Redford Place Drive at the points where there will be no silt fence?
96. Some of the slopes on the west side of RB #2 appear to be very steep. It is recommended to keep grades less than 3:1.

Sheet C5-8

97. Sanitary sewer does not appear to be showing, yet the sanitary services are shown. If the sanitary sewer is to be put in along with the other pipes, please ensure that it is shown on the Phase 2 erosion control plans.
98. There are multiple areas where there is overlapping linework. Multiple proposed contours are shown overlapping in the same location, basins are shown over proposed ponds, and diversion ditches are being shown despite inlets being added in. Please clean up all the linework to only show what is being proposed during Phase 2 of erosion control.
99. Inlet protection should be provided around all inlets.
100. There are unlabeled orange dashed lines that are shown on these plans. Please label them or remove them if they are existing conditions to be removed.
101. Is the road intended to be built during this phase? The proposed grade is not currently being shown along portions of Long Melford Drive.
102. There is silt fence running through a structure northeast of SCM 3.

Sheet C5-9

103. The silt fence by the wall on the bottom right of the page appears to be right up against the wall. Verify if there is enough space to construct the wall given the silt fence location.

Sheet C5-11

104. The walk at the southwest corner of the site is extending past the silt fence. Please confirm if the silt fence is in its intended location.

Sheet C5-12

105. There is a proposed waterline connection that extends through Redford Place Drive, however construction limits and erosion control measures don't seem to take into account this connection. Please update the erosion control plan to indicate how this connection will be handled.
106. Due to all the construction going on around and through Redford Place Drive, please indicate how traffic along this road will be handled.
107. There are some inlet protection devices that are not currently shown around inlets. Please remove or adjust to make sure all inlets have inlet protection.

Sheet C5-13

108. The proposed grade towards the south is going past the silt fence. Please adjust silt fence boundaries as needed.

Sheet C6-0

109. Please label water connections and gate valves in the profile plan views as well as any bends.
110. The dirt road to be removed appears to be showing on profile plan views. If this is to be removed, please don't include it in the plan view so as not to add any confusion and to make plans easier to read.
111. There are lines coming up from the proposed waterline on the profile view that are not labeled. Please specify what these are representing and either add a label or remove if they are not intentional.
112. The waterline connection to Long Melford Drive appears to be located to the right of SMH-20, however on the profile it is shown at the same location as the manhole. Please verify that the waterline is correctly shown on the profile and update as needed.
113. Please verify minimum separation between pipes is provided at all pipe crossings. There are several locations where pipes do not appear to meet separation requirements. The minimum separation should be shown and labeled on the profile view. If a concrete cradle is required, please ensure that it is clearly shown and labeled.
114. The profile view seems to indicate a consistent slope for the majority of Street A, however the plan view seems to indicate that from approximately sta. 14+00 onward the slope does not stay consistent. Please verify the proposed grade matches between plan and profile views.
115. Please label the waterline size and material type. This applies to all profiles that are not already labeled.
116. A minimum cover of 24" is required for storm. Please adjust storm as needed to meet minimum requirements.
117. The profile shows the waterline ending in a blow-off assembly, however the plan view shows a fire hydrant. Please update plans to show what is intended to be used.
118. Please label vertical bends on all profiles.

Sheet C6-1

119. Please show the grade of the existing road that is being connected into.
120. Waterline connections need to line up across profiles. Please ensure that the elevations at tees and crosses remain consistent between profiles.

Sheet C6-2

121. SMH-34 appears to be located above the proposed grade. Please adjust the rim elevation to be level with the road.
122. CB-201 and the connecting storm are currently located well above the proposed grade. Please adjust the storm design to ensure enough cover is provided and the catch basin rim is located on grade.
123. The waterline around sta. 11+50 appears to overlap back over itself. Is this the intent? Consider adjusting the bend to be vertical so there is no backtracking. This happens in other places throughout the profiles as well, please adjust all waterlines as needed.

Sheet C6-3

124. Please verify that the waterline extends as long as is shown in the profile. Based on the plan view it appears to end in a hydrant earlier than what is shown in the profile.

Sheet C6-4

125. Please include SMH-50 in the profile view.

Sheet C6-5

126. Please show the sanitary sewer crossing around station 11+00 in the profile view and label minimum separation requirements.
127. The sanitary sewer between EX SMH-40413 and EX SMH-20596 should be shown in the profile view.

Sheet C6-6

128. Confirm if the water line extends all the way to sta. 10+00. Based on the plan view it appears to stop slightly before it reaches that point.
129. Storm should be designed to meet minimum slope requirements of 0.5%.
130. There is a circle around station 14+50 that is not clearly labeled. Please label and adjust as needed.
131. All sanitary sewer needs to meet minimum requirements. Per COR Public Utilities Handbook, min. grade for 8” sanitary sewer pipe is 0.5%.
132. There are several structures that have their rims set above grade. Please adjust structures as necessary.

Sheet C6-7

133. Please extend the proposed grade in the profile view up to SMH-46.

Sheet C6-8

134. Please update the station labels for the storm structures so they aren’t showing question marks.

Sheet C6-9

135. Please show and label the existing waterline that is being connected into on both the plan and profile.
136. Please label the circle on the waterline profile slightly after sta. 13+00.

137. Around station 13+50 the waterline is shown to bend, however there is no crossing in this location. Is this bend intended to be located slightly further down where the storm crosses water and sewer? If so, please adjust.

Sheet C6-10

138. All structures along the road profile should be labeled in both plan and profile views.
139. There is some linework on the waterline around sta. 18+70 that is shown on the profile view but not the plan view. This should be removed or adjusted to reflect what is shown in the plan.
140. The title block is showing lots of numbers and symbols rather than the expected text. This should be updated to show the intended information.

Sheet C6-13

141. Please ensure the blowoff assembly is shown and labeled on both plan and profile.

Sheet C6-14

142. Ensure stationing is shown on the plan view so it's easy to understand the location the profile view is referencing.

Sheet C6-15

143. There are multiple structures where the rims appear to be located below grade. Please ensure all rims are set at the proper elevation.

Sheet C6-18

144. There are some labels that seem to indicate that the greenway access easement is 10' wide rather than 20'. Please update or reword text so it is clear that the easement is 20' wide.
145. Greenway design will need to comply with ADA requirements. Sections with slopes steeper than 5% will be treated as ramps and need to meet ramp requirements (handrails, landing requirements, etc.).

Sheet C6-20

146. There are two parallel stationing labels shown on the plan view, making it hard to understand what the profile view stationing is referencing. Please only show the stationing that corresponds with the profile.
147. If the intent of this profile is to show the greenway, the profile needs to be adjusted. The greenway is not currently being shown and all that can be seen is the existing grade.

Sheet C6-21

148. Stationing labels should be shown on the plan view so it's easy to understand the locations the profile is referencing.
149. It is unclear what this profile is showing. If the intent is to show the greenway, then the greenway needs to be shown and clearly labeled in the plan view. The profile view also needs to be clearly labeled to show pertinent information, such as labeling proposed/existing grades and showing slopes.

Sheet C7-0

150. Please show and label SCM-related items such as the maintenance and access easement and rip rap.

151. The 10’ maintenance access should continue around the entire pond so vehicles have easy access.
152. The rim elevation of the riser structure does not match what is shown in the detail on this sheet. Elevations should be consistent throughout the plans. This comment applies to C7-1 as well.
153. All ponds should be designed to meet the 1’ minimum freeboard requirement for the 100-yr design storm.

Sheet C7-1

154. Please include information showing what elevation FES-200 is coming in at.
155. The invert out elevation in the profile should match what is shown in the details.
156. Maximum slope for concrete pipes per COR Stormwater Design Manual is 12%.

Sheet C7-3

157. The profile shown on this sheet is for SCM 1, please update to show SCM 4 profile.

Sheet C9-0

158. Active open space is overlapping the existing wetland northeast of Lot 26. Please verify if this shading is correct and adjust as needed.
159. Active open hatching by SCM 1 appears to match with the previous pond design. Verify if hatch is correct.
160. There should be no buffer at the greenway easement and sanitary sewer easement on the south side of the site by SCM 2.

Sheet L1-1

161. Please confirm there are no conflicts with trees and structures/pipes/walls and that trees remain outside of storm and utility easements.

Drainage and Erosion Control Calculations

162. Storm pipe and structures need to be shown on SCM drainage maps.
163. There are multiple locations in the SCM drainage area maps where two separate drainage areas are shown despite them being labeled as going to the same storm structure. Please explain the intent of this and consider combing them into one drainage area for ease of understanding.
164. The drainage areas shown in the SCM drainage area maps don’t seem to quite line up with the proposed contours. Please look into updating the drainage areas to ensure they are accurately representing where drainage will flow. A more thorough review can be done once contours are clearly labeled and storm structures shown.
165. Please indicate how roof drainage will be collected. Will it be routed to structures? This information should be clearly conveyed and taken into consideration when drawing drainage areas.
166. Verify that larger pipes are not being routed into smaller storm pipes.
167. The 10-yr HGLs are required to stay within the storm pipes. Please verify that this requirement is met throughout the storm design.

168. Please include labels indicating the storm design on all storm HGL profile sheets. This includes rim and invert elevations for all structures as well as the material type, diameter, and slope for all the storm pipes.
169. HGL profile sheets should include all storm pipes and structures. There are several pipes and structures that have been left out of these profiles.
170. The 25-year storm sewer analysis profile sheets appear to be copies of the 10-year analysis. Please verify that the correct profiles are shown so the design can be accurately understood.
171. Please label the corresponding SCMs in the SCM drainage maps.
172. It is recommended that drainage areas not routing to the SCM shown in SCM drainage map are removed from the sheet to help reduce any confusion.
173. Verify all structures are included in the inlet analysis sheets.
174. Some structures are being shown of having an inlet drainage area of "N/A" or 0 AC despite the contours seemingly indicating some drainage will still be going to them. Please verify the drainage areas are accurately represented in the analysis.
175. CB-201A is being shown on the storm analysis profiles, however the plan sheets do not seem to include this structure. Please ensure proposed plans are accurately reflected in the calculations and profiles.
176. Please ensure naming of structures is consistent throughout the plans.
177. Some of the storm profiles show surfaces that don't quite seem to make sense, which in turn is causing some of the rim elevations to not seem appropriate. Please verify the proposed grade and structures are properly shown.
178. Please verify all the elevations and inverts are correct and match that shown in the plans.
179. The Temporary Diversion Drainage Areas map has several drainage areas that don't seem to quite match the existing contours. Please ensure drainage areas are accurately representing the water that is draining to the basins/diversion ditches.
180. Please ensure the drainage areas going to all diversion ditches and ponds are clearly shown and labeled. There are some diversion ditches that don't appear to have areas going to them and it is hard to distinguish between different pond areas on the map. All areas should be clearly shown and easily distinguishable.
181. In the Temporary Diversion Drainage Areas map, the temporary diversion ditch numbering does not match what is shown on the table. There are also labels in some of the temporary diversion ditch drainage areas that do not match the numbering of the diversion ditches. Please make sure all labels are consistent so calculations can be followed and reviewed.
182. Ensure permissible velocities for the temporary diversion ditches are met if established grass lining is being used (per NC's Erosion and Sediment Control Planning and Design Manual). If design velocity is greater than 2.0 ft/sec, a temporary lining may be required to stabilize the channel until vegetation is established.
183. The rip rap outlet protection design pages do not clearly indicate what they are corresponding to on the plans. Please add labels so the rip rap sizing can be easily followed and understood.

Stormwater Management Calculations

184. Please include the nitrogen calculations in the calculation packet.
185. Verify the table of contents is correct, it doesn't appear to correspond with what is provided.
186. The NOAA rainfall information is split between sheets and hard to read. Please correct sheets so they can be read and understood.
187. Ensure the pre-development drainage areas are accurate. There are fairly sizeable areas that don't appear to be draining where the drainage areas indicate. Please ensure any changes that happen to the pre-development map are also reflected in the post-development drainage area map.
188. The drainage areas shown on the post-development drainage area map that are being routed to the ponds don't match the drainage areas shown as part of the drainage inlet maps. The areas should accurately represent the proposed conditions and be consistent throughout all sheets/calculations.
189. Verify the overflow elevation in the SCM 1 pond design.
190. Per NCDEQ requirements, the forebay area should not be included in average depth calculations. Please update areas as needed and ensure average depth calculations are correct.
191. The anti-floatation sizing calculations for SCM 1 are shown as negative numbers, is this intended?
192. Per NCDEQ wet pond requirements, the forebay volume(s) needs to be 15-20% of the volume in the main pool. If multiple forebays are provided, their combined volumes should be used for this calculation. Please ensure all ponds are sized appropriately to meet this requirement.
193. Please verify that the SCM 4 forebay and main pool values in the pond volume design page are accurate. They don't appear to reflect current conditions.
194. In the Hydraflow report the combined post POA #3 hydrograph (line 17) appears to include the hydrograph describes as SCM 4 Route. Please confirm that all labels are correct and ensure SCM 4 data is not wrongly being accounted for in Post POA #3.
195. There does not appear to be a combined post POA #4 in the Hydraflow report. Please include this so POA-4 calculations can be reviewed.
196. The pond design information shown in the Hydraflow report does not match what is shown in the pond detail sheets on the plans. Plans should be updated to match across plans and calculations.