

Engineering has reviewed the plans for the Wilmington Municipal Golf Course project submitted October 15, 2018 and have the following comments:

Note: Please forward NCDEQ Stormwater permit approval or exclusion, to City Engineering, once received.

Note: \$1000 Review Fee is still needed. We are working internally to see how this will be paid.

Stormwater Management Permit Application Form:

- 1) If a State permit is needed please update Application accordingly. Please Note: A Dry Detention Basin is only a secondary SCM for the State.
- 2) II. Permit Information; Line Item 3: What is the total disturbed area? Is a sediment & erosion control permit required? If so please mark appropriate box. Please show LOD on plan sheet.
- 3) III. Contact Information; Line Item 1: Please fill in missing line Items. Sterling Cheatham / City Manager ; Phone: 910-341-7810 ; email: sterling.cheatham@wilmingtonnc.gov
- 4) IV. Project Information; Line Item 14: Write in Hewletts Creek Index #: 18-87-26. Total impervious breakdown needs to have all existing impervious to remain entered as such. Building – Future is for proposed only. Breakout the existing impervious from the proposed.

Narrative:

- 5) Please update 2nd Paragraph if formal NCDEQ review and approval is required.

Operation & Maintenance Agreements:

- 6) O&M Agreement needs to be provided for final determined SCM measure.

Stormwater Calculations:

- 7) CN Values / Routing: Pre Development Curve Number (CN) of 39 (Woods Good) needs to be used if only using SCM drainage area for routing calculations. Please update Pre-DA routing calculations basin with drainage area of 73,142 sf. However, if entire subject project area is used (4.6 acres) the Pre-Development CN can be a weighted average. Routing would need to include Post Drainage Area to Dry Pond + Post Non-Treated Drainage Area Remaining to be less than or equal to Q25 Pre-Development flow rate. Either way will be sufficient for approval.
- 8) Please remove 0.520 in/hr. of Exfiltration from routing of dry detention basin or provide soils report and convert to infiltration.

Plans:

- 9) Provide Existing Conditions plan with topo.
- 10) Provide Demo Plan identifying 15,118 sf of impervious to be removed.
- 11) Site Plan (C-2.2): Since parking is over max parking requirements all proposed gravel parking needs to be either pervious pavers or pervious concrete. Please update.
- 12) Grading Plan (C-3.0): Update General Note #5 & Stormwater Note #1.
- 13) Grading Plan (C-3.0): Show outfall location of 12" RCP and provide note to assure route is to be maintained for positive drainage and capable of handling basin overflow. Pipe outfall will need FES with Riprap Dissipater. Where does outfall go?
- 14) Grading Plan (C-3.0): Add Energy Dissipaters to 6" Roof Drain outlets into Basin.
- 15) Details (C-4.1): Sidewalk detail needs to be City of Wilmington with boarder included.
- 16) Details (C-4.1): Remove Gravel Detail and replace with either Pervious Concrete or Pavers.
- 17) DA Map: Need to demonstrate that existing impervious within the SCM DA is greater than or equal to the on-site newly constructed impervious outside of SCM DA.

Please submit revised plan sheets, revised application pages, O&M, calculations, and any other documentation to Engineering for additional review. Please call or email if there are any questions.