

Engineering has reviewed the plans for the Cape Fear Solar project submitted September 24, 2020 and have the following comments:

Stormwater Management Permit Application Form:

- 1) IV. Project Information; Line Item 12: Provide Offsite MUP & Driveways.
- 2) IV. Project Information; Line Item 13: All impervious surface (4,066 sf) located within the "Bypass" area will need to be treated by a primary SCM. Only SCMs need to be provided in this section – Offsite runoff can be excluded.
- 3) Submit \$1000 Stormwater Review Fee.

Narrative:

- 4) Clarify if Wetlands exist on site. Existing Conditions Section says No & Stormwater Management Section says Yes. If wetlands do exist, please Provide JD along with Army Corps/DEQ wetland disturbance permits.

Stormwater Calculations:

- 5) Provide Geotechnical Report.
- 6) All impervious surface from DA C needs to be treated. Once a SCM is designed please update routing and water quality calculations.
- 7) Provide Pre/Post Summary Table.
- 8) Is DA C just accounting for offsite runoff or is it being routed through the Basin (located in wetlands) as attenuation? This additional basin has made this submittal hard to follow.
- 9) Update Pipe Table Heading from Melton Road Facility.

Supplement:

- 10) Add additional SCM for DA C impervious treatment.
- 11) #9: Method for Dewatering: Where is the Drawdown Orifice?
- 12) #37: Number of laterals looks to be incorrect compared to Grading Plan.
- 13) #38: Confirm Total Pipe Lengths. Based on the # of laterals and lengths shown on Grading Plan these numbers need to be updated.

O&M

- 14) Grading Plan shows the two infiltration trenches draining to an open SCM Infiltration Basin, please clarify. If this is an infiltration basin provide Infiltration Basin O&M.

Plans:

- 15) Existing Conditions / Grading: Has an official determination been made for the onsite wetlands adjacent to Dawson Street? The narrative states there are no existing wetlands however the plans show otherwise, please confirm. If no wetlands exist, please add a note to the Existing Conditions plan.
- 16) Existing Conditions: Show existing Trees & Retaining Wall.
- 17) Existing Conditions: Show meets & bounds along property lines.
- 18) It does not seem like the entire set was submitted for review – please upload full set (digitally) to Planning next submittal.
- 19) Where is the proposed Tree Protection?
- 20) Grading Plan: How is the BUA for the structure located at the corner of Dawson & 2nd Street being treated?

- 21) Grading Plan: Outlet pipe from Stormwater BMP is shown as a 24" RCP while existing conditions show it as an existing 18" RCP. Is this pipe proposed to be upsized? Is this a formal SCM or just proposed for attenuation?
- 22) Grading Plan: Coordinate roof drain connections to assure the roof drainage is directed to the correct infiltration trench per Drainage Area Map / Calculations.
- 23) Grading Plan: Clearly identify which boxes are proposed as Weirs and reference corresponding details.
- 24) Grading Plan: Please clarify what is proposed for the outlet pipe located within the wetlands. Is this an outlet structure? If an outlet structure is proposed, please provide a detail.
- 25) Grading Plan: The length labels on the Trenches look to be incorrect.
- 26) Drainage Area Map: 0.48 AC draining to CB1 seem to be significant. Please consider using dual inlets.
- 27) Details: What Trench is the Weir Structure proposed for? Are the elevations the same for both Trenches A & B? Identify which structures on the grading plan the weirs are proposed.
- 28) Details: Where is the Throat Box Dissipater proposed?
- 29) Details: Provide Trash Guard on all inlet pipes, located within inlet boxes, prior to entering trench system.
- 30) Details: Provide Elevations on the Infiltration Trench Section and Identify what Trench it is for? Make sure to include SHWT elevations.
- 31) Details: Provide Detail for the Stormwater Sump w/ Pump.
- 32) Assure Total Impervious Numbers & Percentages match Site Data Tables & Impervious Summary provide on Grading Plan.

Condition of Approval:

- 33) Remove proposed Retaining Walls from Right-of-way adjacent to Phase III structures. In order to reduce impact to existing trees the City will not require the sidewalk to be constructed in these areas until commencement of Phase III construction. The City will require the applicant to submit sidewalk construction plans, sealed by an Engineer, for review/approval prior to Phase III construction.