

Engineering has reviewed the plans for the Woodlands at EF Tract 5 project submitted November 6, 2019 and have the following comments:

### Plans

1. DA-Map:
  - a. DA 253 and DA 254 labels appear to have been left off.
  - b. Verify that the drainage areas delineations for 252, 253, 254 and 255 are correct.
  - c. Shouldn't the drainage area for Pond #5-3 include swale #4?
2. C-2.1: Minor revision: There appears to be two sheets with the C-2.1 label, the Site Plan and the Site Inventory Map.
3. C-3.2:
  - a. A small portion of existing sidewalk along the roundabout at Appleton Way needs to be placed in a public **pedestrian access** easement. It is currently labeled as a drainage easement. Please revise.
  - b. Add the pipe material to the callouts for the 42" and 18" pipes that extend out from McCarley Blvd. They need to be RCP.
  - c. The proposed sidewalk along Carolina Beach Road needs to be placed in a public pedestrian access easement.
4. C-3.3: Even though the SSMH's have been "shifted slightly inside the sidewalk", I am still not confident that some portion of the manholes won't end up in the sidewalk. A note is recommended so that the contractor is made aware that they cannot be in the sidewalk. The sidewalk can also be shifted towards the lots to avoid the manholes. Public pedestrian access easements would be required for any portion of the sidewalk outside of the right-of-way.
5. C-3.2: I am concerned with the location of the ditch/headwall in relation to the proposed CBR sidewalk. How much width will be provided between the edge of the sidewalk and the top of the ditch/headwall? The city will need a safe flat shoulder width of at least 18-24" between the two. Again, the sidewalk can also be shifted away from the ditch/headwall to achieve the preferred width.
6. C-3.3:
  - a. It is not clear if the proposed 6" PVC for roof runoff collection system on Lot #4 will have sufficient cover or the ability to daylight in the ditch. Add rims and inverts and assign a pad elevation to ensure that this system will function properly. Place the 6" PVC in a private drainage easement.
  - b. Pipe material is either RCP or HP **Storm** for the note under the Storm Schedule.
  - c. The proposed Appleton Way sidewalk needs enough spot grades on both edges for constructability as well as the proposed walking path.
  - d. Swales #3 and #4 needs incremental spot grades along its centerline and top of slope to ensure proper construction.
  - e. I did not see a detail for the walking path.
7. Provide submit the landscape plans once received from Mihaly.

Please submit one complete set of plans to Engineering for additional review. Please call or email if there are any questions. Thank you.