

Engineering has reviewed the plans for the Oleander Commons project submitted October 10, 2019 and have the following comments:

Stormwater Management Permit Application Form

1. The proposed parking facility behind the existing building to the north is offsite and should be shown as such in the table. It should be accounted for in IV. #12, #13 and #14 on page 4 of the SW application. #15 will also need to be completed.

Supplement-EZ

Drainage Areas

2. #17: Enter '172,600sf' under **Entire Site**.
3. #18: Enter '63%' under **Entire Site** and '66%' under **1**.
4. #19: Design volume of SCM is 18,190 cf.

Infiltration System

5. #2 and #44: Design Volume: 18,190 cf.

Stormwater and Erosion Control Narrative

6. The revised HGL calculations were not resubmitted. The following comments are from the previous review. Please submit the HGL calculations for further review.

10-year Storm Calculations:

- a. *The table appears to be missing the structure/pipe run from DI-401 to RD-301.*
- b. *There is a small grade bust through structure MH-107. The invert in from DI-108 is 22.73' and the invert out to DI-106 is 22.81'.*
- c. *The pipe system FES-1/INF-OUT shows zeros for HGL elevations and a few elevations around 59'. Please correct for the 10-year and the 50-year HGL analysis.*

Plans

7. Previous comment: *Please affix the appropriate stormwater approval stamp to each sheet in the plan set.* The detail sheets are missing the stamp.
8. Boundary Survey SV-1 (included in the Major Site Plan submittal set) has Autoturn linework showing throughout the parcels.
9. C-2.0:
 - a. Minor Revision: Site Data: The project Site Area of 386,269.74 sf does not agree with the Total Property Area found in the SW Application (386,377 sf).
 - b. The impervious information under Impervious Data does not appear to be correct.
 - c. The connections to the Tidal Creek site don't appear to be clear. Is there a plan for the Tidal Creek site modifications that you can incorporate into the plans for informational purposes? It doesn't appear that Oleander Commons can install its site improvements without the modifications being done to the Tidal Creek site.
 - d. The proposed parking facility behind the vacant building isn't shown.
 - e. The proposed water appurtenances appear to be in conflict with the sight distance triangle on the eastern entrance.
 - f. The WAVE bus stop does not appear to show, only the callout.
10. C-4.0:
 - a. Need to make certain that Ex-DI will be a traffic rated structure now that it will be in the asphalt.
 - b. Are the number of inspection ports sufficient for the sizes of the chamber footprints? Does ADS provide any guidance? NCDEQ Manual only requires one so you have provided what is required.

11. C-4.1:
- a. Sidewalk is needed on the western side of the western access and should connect to the existing Tidal Creek sidewalk.
 - b. Existing FHs appear to be in conflict with the new sidewalk along Oleander. A separation of 18-24" between the edge of the sidewalk and FH is desired.
 - c. Any portion of the proposed sidewalk along Oleander that drifts outside of the right-of-way needs to be placed in a public pedestrian access easement.
 - d. Previous comment: *The western entrance exceeds the allowable width at the property line as outlined in the TSSM (Table 3, page 7-9). A variance request must be submitted for any deviation from technical standards.* Variance request was not submitted.
 - e. There is an open pipe end along Oleander near the center of the project (invert: 20.38'). There will be a sidewalk adjacent to it, would it be best to modify this pipe end to a DI or YI?
12. C-4.2:
- a. A small section of sidewalk is needed on the eastern side of the eastern driveway.
 - b. Is the median raised? How will pedestrians navigate the entrance?
 - c. Existing FH, SSMH and water valves appear to be in the sidewalk alignment.
13. C-5.0:
- a. Utility installation/relocation that impacts Oleander Drive needs to have the appropriate details (NCDOT and/or City) added to the plan set. Road rebuild, pavement repair and pipe trench are possible details that need to be added.
 - b. Again, placement of FHs, manholes, cleanouts, etc. within the sidewalk should be avoided due to uneven settlement and the creation of tripping hazards.
14. C-6.0: The commercial driveway details can be removed from this sheet since it is not being installed.
15. C-6.4: City standard details must be the most recent pdf version downloaded from the city website and have the city titleblock. The pipe trench detail needs to be updated accordingly.

Variance Requests

16. Request #1 should be granted, but Request #2 still requires some attention before the City will respond to the variance request. Please contact the City Traffic Engineer, Don Bennett ([910-341-0089](tel:910-341-0089)/don.bennett@wilmingtonnc.gov) and Bill McDow ([910-341-7819](tel:910-341-7819)/bill.mcdow@wilmingtonnc.gov) to discuss their concerns with the driveway locations.

Please submit one complete set of plans, the revised stormwater application pages, the revised Supplement EZ form, revised calculations and any other supporting documentation to Engineering for additional review. Please call or email if there are any questions. Thank you.