

August 3, 2023

Zackary A. Wilkins, P.E.  
Townes Site Engineering  
1 Park West Circle, Suite 108  
Midlothian, VA 23114

**RE: QTS Tract 9 – Full Buildout Plan  
Portugee Rd  
POD2023-00314**

Dear Mr. Wilkins:

We have reviewed the construction plans submitted to the Planning Department on July 28, 2023.

Please address the following comments and **resubmit revised construction plans** for review. Water and Sewer Agreements that must be executed by the Owner and the County for water and sewer improvements **have not** been executed.

**General:**

1. Agreements have not been executed at this time. Agreements must be executed prior to the authorization to begin utility construction or approval of building permits. An Information Sheet for the Preparation of Utility Agreements has not been submitted for review. If the Information Sheet is incomplete when submitted, we will send you comments for correction and resubmittal. If the required Information Sheet complete when submitted, an Agreement will be forwarded to the Owner for signature within 21 days.
2. Provide a Domestic Meter Sizing Form (F-8) and Fire Flow Estimate Form (F-9) for each building.
3. Provide a Notice of Intent to Discharge to Sanitary Sewer (F-12) and an extra copy of the plans with the next submittal for DPU Monitoring & Compliance Section.
4. Offsite utility easements must be recorded prior to plans approval for the sanitary sewer extension.
5. Provide an Engineering Report (Page 1 and 2) with the next submittal.

**C-17 & C-18 (Utility Layout):**

6. The buildings do not meet the 350' hose lay requirement. Additional fire hydrants are required. Be advised, the dedicated fire hydrants cannot be used to meet ISO and/or hose lay requirements.
7. Will a fire pump be installed with this project?
8. Fix overlapping stations (STA) on the east side of the building.
9. Provide a minimum of 10' horizontal separation between the water main and storm pipe on northeastern and southwestern side of buildings RIC1-DC4 and RIC1-DC5.
10. Use a 30"x8" tapping sleeve and valve instead of a tee to connect to the existing 30" water main in Portugee Rd.
11. Why is a casing pipe being installed if it will be an open cut installation for the water main connection?
12. The water valve is located directly over top of the storm sewer pipe. Relocate the storm sewer pipe to provide a minimum of 8' separation 46+70.

13. There should be no access security gate overtop of the proposed water main. Provide details of the proposed security gate. Also, DPU requires installation of a casing pipe around the water main where the water main crosses the security gate.
14. There should only be two valves at a tee and three valves at a cross per D-480. Review the valves near STA 46+70.
15. Provide 5' horizontal separation between the fire hydrants and storm sewer.
16. The sheet location for the irrigation backflow preventer detail is incorrect in the irrigation reference.
17. Review the sheet location of details in the utility references. Several references are incorrect on the plan.
18. Provide a note indicating valves will not be installed within the sidewalks.
19. Provide a minimum of 50' separation between fire hydrants and the building or request an exception to the DPU Standards to allow the fire hydrants to be installed within 50' of the building.
20. For all three (3) buildings:
  - a. Install fire hydrants near the sidewalk. Fire hydrants should be installed no more than 7' from back of curb.
  - b. Install all meters closer to the sidewalk and revise utility easements to relocate the backflow preventers out of the utility easement.
21. Reference the ductile iron pipes. Both water main tap connections should be DI pipes to the first tee or to the first bend.
22. Provide the following core-drill note on the plans, *"Connections to existing manholes without stubs or bricked-up openings shall be the equal of either Kor-N-Seal w/stainless steel expander ring or Press-Seal w/nylon expander sleeve installed by core drilling manhole and in strict accordance with manufacturer's specifications."*
23. Provide internal angles at the manhole connection and each manhole.
24. Provide benchmarks within 500' of the sanitary sewer area.
25. Change any sanitary sewer pipe that is not under the pavement to ductile iron pipe.
26. Label the manholes that connects the private laterals to buildings.
27. Label the material of the private sewer laterals.
28. Label all sanitary sewer pipes from the building RIC1-DC6 to M/H:5 as private sanitary sewer.

**C-23-25 (Profile):**

29. Show all water and sanitary sewer crossings on the profiles.

**C-26 (Profile):**

30. Remove the redundancy profile between M/H:3 and M/H:4 in the bottom profile.
31. Revise sanitary sewer pipe from M/H:E1 to M/H:3 to ductile iron pipe.
32. Lower the proposed sanitary sewer so inlet invert to be at 123.43 at M/H:E1.
33. Label the monitoring manholes on the profile.
34. All manholes should be shown to final grade on the sanitary sewer profiles.
35. Sewer installed 18' or greater must be ductile iron.
36. Why is the sewer so deep?

**C-27 & C-28 (Profile):**

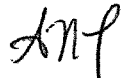
37. The material of the water line should transition between fittings. Update the water line as necessary.

**C-32 (Fire Flow):**

38. DPU cannot review the hydraulic water model since Fire Flow Calculations were not provided with the construction plans. Additional comments may be generated with next plan review submittal.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4508 or John Yi at 501- 4511.

Sincerely,



Alice Thompson  
Utilities Engineer

cc: Sarah Blue, Quality Investment Property Richmond LLC

bc: Ralph Claytor  
Marchelle Sossong  
Daniel Ivy  
Tony Greulich, Planning

ANT/vr

**REVISED CONSTRUCTION PLANS REQUIRED**