

September 28, 2021

Zackary Wilkins, PE  
Townes Site Engineering  
1 Park West Circle, Suite 108  
Midlothian, VA 23114

**RE: Gateway II**  
**1648 N. Parham Rd.**  
**FILE NO. 1695; POD2021-00119**

Dear Mr. Wilkins:

We have reviewed the construction plans submitted to the Planning Department on September 10, 2021.

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 have not been executed.

**Sheet C-1 (Cover Sheet):**

1. Revise water and sewer material quantities in accordance with all comments.
2. Clarify the square footage of the main building and clubhouse in the site data as it doesn't match with what is shown in Fire Flow Estimate Form.
3. Clarify what is on the first floor of the main building. Is the entire first floor retail?

**Sheet C-2 (Existing Conditions):**

4. Provide a copy of the existing 16' easement with the DB 39 PG 56 for the existing waterline.
5. Show the existing sanitary sewer connections and clean-outs to the existing apartment and club house.
6. Clearly show all existing water valves, fire hydrant lead and valves. Update where necessary.
7. Include CSB or GIS information for all existing manholes by including MH ID or Station Numbers, top elevations, inverts, and provide directional flow arrows on the sanitary sewer main. Update where necessary.
8. Review the elevations and datum for the existing sanitary sewer. Why is it several feet different than GIS elevations?
9. Verify the location of the existing utilities and easement. Why are the utility not in the center of the easement?

**Sheet C-3 (Demolition Plan):**

10. All comments on existing conditions sheet also apply to this sheet.
11. Identify the manhole that is going to be abandoned. Label to abandon it per detail D-170. Provide details in the detail sheet.
12. Identify any valve, fire hydrant, and meter that needed to be remove.
13. Show the location where you are planning to cut and plug/cap the existing water and sanitary sewer mains and service connections.

**Sheet C-16 (Utility Plan):**

14. All comments on existing conditions sheet also apply to this sheet.
15. Update sheet C-4 to match with the utility plan.
16. Show the location of the waterline adjustment in the water main by providing a bubble around the adjustment area on the utility plan.
17. Recommend including details D-520 & D-525 within the 5/8" meter callout.
18. All proposed water main should be 8". Eliminate the short portion of the existing 6" water main. Tie the proposed water main to the existing 6" water line with an 8"x8" tee and the 8"x6" reducer. Provide 2 proposed valves at the tee.
19. Review the callout the 1.5" water meter. The corporation stop and the copper service size must be 2" and not 1" as proposed on the plan.
20. Clarify whether you are planning to use a corporation stop or an 8"x4" tee with 4" valve to connect the water service pipe to the 8" water main. You must choose one method over the other not both.
21. Label to install the 1.5" meter per detail D-534 if you use corporation stop. Detail D-520 and D-525 are for the smaller meter.
22. Label to install the 1.5" meter per detail D-535 if you plan to use tee and valve method.
23. Label to install BFP instead of DC per detail D-435 for the fire line.
24. Provide domestic backflow device on the plan with proper detail number, size included within its callout. Show the location of the two backflow preventers to make sure they are not in conflict with each other.
25. Relocate the waterline "D" to the other side of the entrance if possible.
26. Provide 10' separation between the waterline and storm sewer pipe.
27. Shorten the waterline "B" to end near the entrance.
28. Label to install flushing hydrant per detail D-500.
29. Label all the water appurtenances at the flushing hydrant such as 8"x4" tee, 4" valve, 4" DI pipe, and 2" copper pipe.
30. Additional fire hydrant might be required depending on the revised Fire Flow calculation.
31. Provide new manholes and realign the existing sanitary sewer where it is in on top of the curb. Changing manhole top and rotating it out of curbing is not acceptable.
32. Relocate the proposed storm sewer to provide more separation between the storm sewer and the existing manhole.
33. Proposed waterline should not cross the proposed storm sewer and the existing sanitary sewer at the same point.

**REVISED CONSTRUCTION PLANS REQUIRED**

34. It is unlikely you will be able to save the existing manhole 196SW074 since the top and the proposed inverts are going to be different than the existing.
35. Provide more information on the potential usage of the "Clubhouse" and/or "First Floor Retail". If any non-domestic wastewater is generated at either location, such as food prep occurring, a Monitoring Manhole and Pretreatment would be required in the design. Is there going to be any restaurant or all retail? Submit the NOI form.
36. Proposed clean-out and meter should not be in the sidewalk.
37. Replace the existing fire hydrant in Parham Road with a new one out of the pavement.
38. Show all the proposed fire hydrant valve to be in the pavement instead of in the dirt behind the curb.
39. Proposed waterline should cross other utilities as close to being perpendicular as possible.

**Sheet C-16 (Utility Details):**

40. Request an updated water system flow request with the fire flow of 3500 gpm.
41. Add detail D-170, D-500, D-534 or D-535.
42. Add the appropriate backflow preventer detail for the domestic water service line.

**Sheet C-21 & C-22 (Profiles):**

43. Revise the "Sanitary Sewer MH E1 to MH2 Profile" in accordance with comments on Utility plan sheet.
44. Change the size of the tapping sleeve & valve shown at the beginning of "Waterline Alignment Profile" to 8"x8" to match what is shown on the utility sheet.
45. Show all storm crossings on "Waterline B Alignment Profile".
46. Label to use DI pipe where you are adjusting the waterline under the storm sewer.
47. Review the labels at the end of water line C profile near station 12+00 to match with the plan view.
48. Proposed sanitary sewer should be kept at the same existing elevations or lower to be sure the neighboring properties with the address 8905 and 8907 will be able to connect to the proposed sewer for future development.
49. Identify all the crossing pipes in the profile.

**Sheet C-25 (Fire and Water Calculations):**

50. Remove the Project Summary Report form and the Engineering Report from this sheet. Update the flow on these two forms based on the correct square footage of the building. Update the fire flow and the minimum pressure. Provide retail flow, and DI pipe in the project summary report. Clarify how you calculated peak hour demand and maximum hour demand.
51. Complete the Domestic Meter Sizing Form for the retail building.
52. Revise the fixture value of the washing machine in the Domestic Meter Sizing Form for the apartments and update the total combined fixture value and maximum demand.
53. Revise the ground floor area in the Fire Flow Estimate Form to match with what is shown in the site data on the cover sheet and update the calculation. Shouldn't there be exposure between the two buildings?

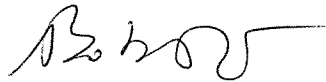
**REVISED CONSTRUCTION PLANS REQUIRED**

**General:**

54. 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 been submitted and is being reviewed. If the Information Sheet is incomplete, we will send you comments for correction and resubmittal. If the Information Sheet is complete, an Agreement will be forwarded to the Owner for signature.
55. Update the Fire and Water calculation on sheet C-26 with the correct required fire flow.
56. Resolve overlapping texts on the plan to prevent any conflict. Update where necessary.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4601.

Sincerely,



Bob Dao  
Utilities Engineer

cc: Steven T. Alexander, Gateway Associates of Richmond, LLC

bc: Ralph Claytor  
Marchelle Sossong  
Jen Cobb, DPW  
Daniel Ivy; Megan Gallagher  
Christina Goggin, Planning

BQD/vr

**REVISED CONSTRUCTION PLANS REQUIRED**