

March 4, 2022

Jonathan Winks, PE  
Timmons Group  
4701 Owens Way Suite 900  
Prince George, VA 23875

**RE: Residence Inn Airport  
500 W Williamsburg Rd  
File No: 5565; POD2022-00055**

Dear Mr. Winks:

The Department of Public Utilities has completed a review of the water and sewer plans that are part of the plan of development submitted to the Planning Department on February 11, 2022.

DPU recommends approval of these plans by the Planning Commission.

Please address the following comments before submitting the construction plans for signature.

**General:**

1. An Information Sheet for Preparation of Agreements for Water and/or Sewer Service has not been submitted. The Information Sheet allows the Department of Public Utilities to prepare the Water and Sewer Agreements which must then be executed by the Owner and the County prior to approval of building permits or prior to the utility pre-construction meeting and authorization to proceed with utility construction. It is recommended that the Information Sheet be submitted as soon as possible to avoid delays in either of these steps. Preparation of the Agreements may take up to 15 days after receipt of the Information Sheet and execution by the County after execution by the Owner may take up to 10 days. Conflicts between the completed Information Sheet and the plans may generate additional review comments.
2. The Average Design Flow within the Water System Design is required to be in GPM. The value provided on F-1, Page 2 is in GPD. Review and updated subsequent calculation as necessary. Resubmit the form with the next submittal.
3. Per the Water and Sewer Design Calculation, the lowest resident pressure in the system at total design peak flow is referenced as 30 psi. Provide a copy of the water model results to DPU for review.

**Cover Sheet:**

4. Provide an original signature and date on the engineer's seal on the cover sheet.
5. Include "POD and Utility Plan" in the construction plan title.
6. Update Material Quantities per the plan comments.

**Sheet C1.6:**

7. Remove the 1½" and 2" Meter Setting with Corporation Stop (D-534) and 1½" and 2" Meter Setting (D-535-2) from the construction plan since it does not pertain to this project.

**Sheet C1.7:**

8. The Total Floor Area (*effective area*) is the total square-foot area of the largest floor in the building plus the 50 percent of all other floors. Review the calculation and revise accordingly.
9. The Combined Fixture Total should not be rounded. Update the calculation accordingly.

10. A Maximum Demand for a Combined Fixture Total of 1088.4 is approximately 142 gpm.
11. Provide the following details on the construction plans:
  - a. Monitoring Manhole (D-125)
  - b. Backflow Preventer (D-400 or D-406, D-430 or D-435)
  - c. Tapping Sleeve and Valve Assembly (D-470)
  - d. System Boundary Valve (D-476)
  - e. Waterline Valves at Tee and Cross Branches (D-485)
  - f. PVC and DI Trench Bedding (D-710-1 and 2, D-730)
12. There is no drop connection shown on this construction plan. Remove the detail from the plan.

**Sheet C2.0:**

13. Reference the deed book and page number (DB & PG) for the existing utility easement around the existing sewer main parallel to Audubon Dr.
14. Provide the direction of flow arrows on the existing sanitary sewer main. See the utility sheet as well.
15. Include "DWG File No. 2004-027" in the reference to the approved plans titled "Airport Self Storage."
16. Update and/or removed the notes in the top left corner of the plan sheet that do not pertain to this construction plan. See the utility plan sheet as well.

**Sheet C4.0:**

17. Provide four (4) northing/easting points on the plan.
18. Label the distance from the water line to either the face or back of curb.
19. Remove the utility easement around the private water and sewer services. The includes the water service line after the water meter, the fire service line after the boundary valve, and no easement is required for the proposed sanitary sewer.
20. No backflow preventers are shown or referenced on the plan. Provide the following information on the plans:
  - a. Reference sheet location of the backflow preventer detail in the backflow preventer callout.
  - b. Show the approximate location of the proposed backflow preventers.
  - c. Reference size and the detail number of the backflow preventers.
  - d. A backflow preventer is required on the domestic and fire lines.
21. The proposed building does not meet DPU 350' hose lay requirements. Be advised, a dedicated fire hydrant cannot be used to meet hose lay requirements and ISO required number of fire hydrants.
22. Per the Fire Flow Estimate Form, four (4) hydrants are required for this project. Only two fire hydrants have been provided. Additional fire hydrants are required.
23. The siamese connection must be installed within 50' of the dedicated fire hydrant.
24. A dedicated fire hydrant is required for the proposed fire sprinkler system. Reference the dedicated fire hydrant on the plans.
25. The proposed water meter is too close to the building. Shift the water meter approximately 8-10 from the proposed building.
26. Label the size and material of the domestic service line between the water main connections and meter.
27. Be sure to refence the size and material of the fire service line between the water main connections and boundary valve.
28. There should be two valves at a main line tee. Provide two valves at the tee near STA 3+00.
29. Modify the tee references from "8" tee" to "8" x 8" tee" and the fire hydrant connections from "8 tee" to "8" x 6" tee."

**REVISED CONSTRUCTION PLANS REQUIRED**

30. Show the location of the water line adjustment in the proposed water main by providing an oval around the area of the adjustment.
31. Show the location of the storm sewer structures and pipes on the utility plan.
32. There appears to be several conflicts with the proposed storm sewer pipes/structures and the proposed water and sewer lines. DPU recommends carefully reviewing the location of the proposed utilities to avoid construction conflicts.
33. The valves on the water and fire service lines are shown within the gutter pan. Shift the water main closer to the drive aisle to avoid the utilities in the gutter pan.
34. DPU recommends remove the bends and relocating the water main from out of the parking spaces south of the proposed hotel.
35. Remove the bends at the end of the proposed water mains and replace with tee connections for the proposed fire hydrants. Terminate the water mains with plugs.
36. Clearly label and identify the limits of the proposed 20' utility easements.
37. Provide a blow up of the meter/fire service connection area so the utilities can be clearly seen on the plan.
38. Be advised, the building is located within the proposed utility easement around the water meter. No structures are allowed in the utility easement.
39. Show all valves on the fire hydrant lead near the tee in accordance with the fire hydrant detail.
40. Provide water line stationing for all the proposed onsite water lines.
41. Show and reference the existing water mains and fire hydrants in Audubon Drive and Trampton Rd.
42. The DPU Monitoring and Compliance Division is currently reviewing the NOI form information. Any comments requiring further action will be forwarded to you upon receipt by our office.
43. Provide the internal angle at the doghouse manhole.
44. Label the proposed manholes on the plan and ensure the labels coordinate with the sanitary sewer profile.
45. Label the size and material of the sanitary sewer line between the manhole connection and the next upstream manhole.
46. Is there a reason why a 6" sewer line cannot be installed between the manhole connection and the next upstream manhole?
47. A monitoring manhole is required for this project. Install the monitoring manhole out of the drive aisle for the safety of the monitoring crew. Review and redesign the sanitary sewer service.
48. The minimum slope on a sewer lateral for a commercial project is 2.08% from the sewer main connection to the limits of the utility easement. Once the lateral extends past the utility easement, it may be reduced per Building Inspection requirements.
49. The proposed sanitary sewer service line is too close to the storm structure. Provide 8-10 separation between the sanitary sewer and storm structure.
50. Why is a stub (in the direction of Audubon Drive) provided at the proposed manhole connection?
51. Label the material of the existing sewer main on the utility plan sheet.
52. The sanitary sewer will need to be designed to serve the portion of the property on Williamsburg Rd that will not be developed with this project. Provide an onsite utility easement from the sanitary sewer from Trampton Rd to the undeveloped portion of this property off Williamsburg Rd.
53. As mentioned in the preliminary comments dated November 5, 2021, based on the existing inverts and topography in Audubon Drive, the sanitary sewer should be extended along the frontage of the Residence Inn property to serve the future development on the southern party of the property. This will avoid disruption to the hotel parking lot or additional cost to install sewer from Trampton Rd when the southern party of the property is developed in the future.

**REVISED CONSTRUCTION PLANS REQUIRED**

**Sheet C4.1:**

- 54. All water lines 8" or larger must be profile. Profile the water main located in front of the proposed hotel.
- 55. Use four (4) 45° bends to adjust the water main under the storm sewer in accordance with the water line vertical alignment detail per D-485.
- 56. There should be .10 fall across MH-2 between the proposed invert in and existing invert out.

**Sheet C5.0 and C5.1:**

- 57. Review the location of the storm sewer crossings and ensure there will be no conflicts with the proposed storm sewer and water main.

**Sheet L8.0 and L10.0:**

- 58. No trees and lighting are allowed in the utility easements. Landscaping and lighting cannot be approved until the final utility layout is approved by DPU.

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: Neil Amin, Sham Hotels, Inc.

bc: Ralph Claytor  
Megan Gallagher  
Daniel Ivy  
Marchelle Sossong  
Aimee Crady, Planning

ANT/vr

**REVISED CONSTRUCTION PLANS REQUIRED**