Hamilton Bushey, P.E. Draper Aden Associates 1030 Wilmer Ave, Suite 100 Richmond Virginia, Virginia 23227

> RE: Woodspring Suites Extended Stay Hotel 4615 Williamsburg Road File No. 5547; POD2021-00465

Dear Mr. Bushey:

We have reviewed the construction plans submitted to the Planning Department on November 2, 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 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 is complete when submitted, an Agreement will be forwarded to the Owner for signature within 21 days.
- 2. Provide Notice of intent to discharge (form F-12).
- 3. Provide Engineering Report (form F1)
- 4. Be sure that the sheet number and title provided on each individual sheet coordinates with what is shown on the sheet index.

C1.0 (Cover Sheet):

- 5. Original signature is required on the P.E. Seal on the Cover Sheet. A facsimile of seal, signature and date is acceptable on all other sheets.
- 6. Coordinate building construction type, under site data, with that shown in the ISO fire flow estimate form.
- 7. Include the term "Utility Plan" within the title.

C5.0 (Site Layout Plan):

8. Provide scale for this sheet.

C5.1 (Utility Plan):

- 9. There is a conflict between existing manhole 119NW007 and the proposed curb and gutter. Resolve conflict so that manhole is within the pavement or sewer is relocated to accomplish this in relation to proposed curb & gutter and sidewalk.
- 10. Show last fire hydrant valve outside of the gutter pan and close to the tee. Reference D-495 for this hydrant.
- 11. Show all existing laterals for this site within Williamsburg Road. Abandon the existing sewer laterals that are not needed to serve this site at the main. Add a note stating that "sanitary sewer laterals are to be abandoned consistent with DPU Spec. 1.4.01C and 10.3.10".
- 12. Clearly show and label the existing water and sewer utilities (mains and services) within Williamsburg Road. Also, show the abandoned 10" waterline line within Williamsburg Road.
- 13. Label 8"AC sewer main onsite east of the proposed building.

- 14. Label and reference the size of the existing utility easement for the existing sewer onsite on the utility plan sheet. Also, clearly, and prominently show the deed book and page number for the existing utility easements shown on the plan.
- 15. Provide information to address the raising or lowering of existing manhole EXA to finished grade. This table should include:
 - Existing top elevation.
 - Proposed top elevation.
 - Amount of modification required, i.e., vertical feet of raising or lowering.
 - Proposed method of adjusting manhole.
 - Phase of construction manhole modification is to be done.
- 16. Provide GIS manhole ID number for the existing manholes shown on the plan.
- 17. Provide bearing and internal angle for proposed sanitary sewer where connecting to existing sewer manhole. The deflection angle at the existing manhole shall not be more than 90°
- 18. Provide an adequate number of hydrants to meet the maximum allowable hose lay of 350 feet around the building.
- 19. Add the following note, "A maximum of 12" adjustment may be done utilizing pre-cast riser rings to raise frame and cover. For additional height adjustment, pre-cast manhole sections must be installed. Decreasing manhole depth must be done by removal/replacement of pre-cast manhole sections."
- 20. Provide 3 minimum Northing/ Easting points for GIS on utility plan view sheet.
- 21. Reference county water and sewer book in the bottom right corner of the utility plan.
- 22. Relocate the FDC to within 50 feet of the dedicated hydrant and position along the same side of the drive isle as this hydrant. Remote FDC connections are always preferred where possible.
- 23. Locate the boundary valve at the edge of the utility easement.
- 24. Provide 5' of separation between the 8"x4" tee and 8"x6" tee.
- 25. Label the size of the proposed domestic backflow preventer and show the approximate location of this RPZ inside the building to assist our inspector.
- 26. Specify reduced pressure backflow preventer for the domestic meter and reference DPU detail D-405. Include this detail on the plan.
- 27. Specify reduced pressure detector assembly for the fire line in accordance with DPU detail D-435 and denote the device size. Reference DPU detail D-435. Show the approximate location of this device inside the building to assist our inspector.
- 28. In accordance with the profile, show the waterline adjustment location where waterline crosses storm pipe near STA 0+50.
- 29. Eliminate unneeded 8" valves near the 8"x6" tee and 8"x4" tee.
- 30. Based on the combined fixture value total in the meter calculations form, a 2" meter will be required instead of dual 2" meter.
- 31. Eliminate utility easement for the proposed waterline installed within the ROW.
- 32. Specify installation of water main within Williamsburg Road to be open cut.
- 33. Add the following note, "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."
- 34. If possible, install all water main under the standard asphalt pavement. Any water main under the permeable pavement shall be installed a minimum of 36" below the subgrade.
- 35. Be advised that a hold harmless agreement will be required if there are public utilities under the permeable pavement.

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C7.0 (Profiles):

- 36. Revise water and sewer profiles in accordance with the utility comments.
- 37. The following comments pertain to the waterline profile:
 - Revise the size of the tapping sleeve and valve to 16"x8" instead of 12"x8".
 - Show the symbol of the 8" valve, in association with the tapping sleeve, at the tie-in location
 - Revise the size of the plug at the end of the waterline to 8".
 - Show the abandoned 10" waterline crossing in Williamsburg Road. Add note that portion of this waterline must be removed for at least 8' in each direction.
- 38. Use a standard drop connection (D-130) at the existing manhole EXB within the sanitary sewer profile since the distance between the top of the incoming sewer and the top of the outgoing sewer is more than 2'-6" and provide both upper and lower invert elevations for the drop stack. DI pipe and fittings shall be used for drop connection.
- 39. Show existing sanitary sewer pipe crossing the storm pipe between manholes 1 and 2 within the Storm Sewer 1-5 profile.

C10.4 (Utility Details):

- 40. Replace the current domestic meter sizing calculations with the meter sizing form F-8 and provide a signature on the form. Also, revise the required meter size to 2".
- 41. Revise water system calculations to reflect comments on water system requirements. Also, DPU is looking for adequate pressure at the terminal fire hydrants during max day domestic demand with 1000 gpm fire flow at each hydrant.

L1.1 (Landscape Plan):

42. Tree plantings must be located outside of all utility easements or at least 10 feet away from utilities within right of ways. All other proposed landscaping must not obscure visibility or hinder maintenance of above grade or at grade utilities. Any non-tree landscaping within utility easements requires the following statement on the landscaping plan: "The owner is responsible for replacement of any planting (i.e., shrubs, etc.) damaged or removed by DPU, or it's agent, as required for maintenance of county owned water and/or sewer facilities."

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4512 or John Clark at 501-4501.

Sincerely,

*Preini botros*Ireini Botros
Utility Engineer

cc: Doug Ellis, Suburban Capital, Inc.

bc: R. Claytor, M. Sossong D. Ivy, M. Gallagher Tony Greulich, Planner

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