

March 31, 2022

M.M Mills III, P.E.
Rummel, Klepper & Kahl, LLP
2100 E. Cary Street Suit 309
Richmond, VA, 23223

**RE: Echo Hotel at Independence Park
9940 Independence Park Drive
FILE NO. 5573; POD NO. 2022-00124**

Dear Mr. Mills:

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 March 11, 2022 and received by DPU on March 16, 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. 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. Sheet C5.0 for existing conditions and demolition plan is missing from the plan.
3. Engineer to provide hydraulic calculations demonstrating adequate residual pressure throughout the distribution system assuming fire flow at worst case fire hydrants.
4. Include material notes (F-6).
5. Include DPU standard water & sewer notes (F-11) on the plans.

C0.00 (Cover sheet):

6. Revise the title to include the word "utility" and delete "Preliminary Plan".
7. 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.

C7.00 (Utility Plan):

8. A 2" meter will not be adequate for the current fixture count which will exceeds 1200 units maximum value within the table in section 4 of the DPU Standards. Therefore, provide dual 1½" water meters for this facility. Refer to DPU Standards 4.2.07 E7.
9. Relocate the proposed fire hydrant in front of the hotel to the middle peninsula near the crosswalk.
10. Label the existing 8" valve near waterline tie in location.
11. Show and label the existing utility easement on the utility plan sheet where water and sewer tie-in will occur. Also, show the deed book and page number for the existing utility easement shown on the plan.
12. Provide GIS manhole ID number for the existing manhole where sewer tie-in will occur and include CSB invert and rim elevations.
13. Reference CWB/CSB sheets in the bottom right corner of the plan sheet on the utility plan.

14. Provide three northing/easting points on the utility sheet.
15. Cluster the 6" valve with 8"x6" tee for all proposed fire hydrants.
16. Provide 16-foot-wide utility easement for the proposed fire hydrant east of the building.
17. Provide a gate valve at the tee for the fire line. This is in addition to the boundary valve.
18. Correctly label the isolation valve as boundary valve and locate the boundary valve at the edge of the easement.
19. Provide 6" DI fire line from the main to the boundary valve.
20. Relocate the private fire line outside of public utility easement as much as possible and so that it is at least 10' from parallel public water service.
21. Provide at least 5' of separation between the 8"x4" tee, 8"x6" tee and fire hydrant tee at the end of the proposed waterline.
22. Provide enlarged view of area with dedicated fire hydrant, fire line and domestic meter.
23. Provide a ductile iron lead and tee for fire hydrants (instead of 90-degree bend) in accordance with D-495.
24. Show the symbol of the 4" valve for the 8"x4" tee.
25. Adjust the lead lines to correctly point to the 8"x4" tee and 8"x6" tee.
26. Specify the size of domestic backflow preventer and reduced pressure detector assembly. Show the symbol of these devices inside the building.
27. Specify reduced pressure detector assembly for the fire line per DPU detail D-435.
28. Show the FDC and locate it within 20-50 feet of the dedicated hydrant and on the same side of the road.
29. Label size and material of the existing utilities shown on the plan.
30. Label the material of the proposed water main.
31. Locate manhole A2 at least 10' away from the building and show the lateral between the building and manhole A2 with cleanout per building code requirements.
32. Label the proposed sewer main as "private".
33. Label manhole A1 on the plan view.
34. Provide bearing for proposed sanitary sewer.
35. 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."
36. Revise water and sewer material quantities in accordance with all comments and per the following:
 - Include the domestic reduced pressure backflow preventer and the fire line reduced pressure detector assembly and label these as "private".
 - Include proposed boundary valve.
 - Label sanitary sewer quantities as "private".
37. Reference DPU detail D-495 for the proposed fire hydrants within the callouts.
38. Provide 8' of separation between the proposed sewer main and the storm inlet approximately 90' upstream of manhole A1.
39. Provide valves on main line tee per D-480 at the 8"x6" tee northeast of the building.

C10.0 (ISO Calculations & Water Meter Sizing):

40. Revise the maximum demand within the meter sizing form to 150 gpm per figure 4-3 AWWA manual M22. Also, revise the size of the meter to dual 1½" water meters for this facility based on the revised maximum demand of 150 gpm.
41. Revise the ISO form per the following:
 - Provide a detailed calculation for the total floor area A_i (effective area). The effective area shall be the total square foot area of the largest floor in the building, plus 50% of all other floors for buildings classified as construction classes 1-4.

- Label type of occupancy as C-2.
- Revise the exposure factor number (x) to show that the proposed building does not have any exposures. New ISO methodology only considers exposures within 40 feet of the subject building.
- Revise accordingly, the needed fire flow.

C11.0 (Utility Profiles):

42. The following comments pertain to the Sanitary Sewer "A" profile:

- Label the proposed sanitary sewer as "Private".
- Provide at least 3.5' of cover over the sewer pipes.
- Specify a flattop manhole structure for manholes A1 and A2 and include a specific detail showing this structure for each manhole.
- Eliminate spurious 6" waterline crossing near STA 2+40.

43. The following comments pertain to 8" water main:

- Label the material of the 8" water main.
- Revise the profile in accordance with the utility comments.
- Provide at least 3.5' of cover over the waterline.

C19.01 (Henrico County Standards Utility Details):

44. Add the following note: "Electronic markers (ball type) shall be installed on all water mains and sewer gravity mains in accordance with specification 2.2.05N and 4.2.02E of the 2014 DPU Design and Construction Standards."

L1.00 (Landscape):

45. 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,

Ireini Botros
Ireini Botros
Utilities Engineer

cc: Carter Rise, Sandpiper Lodging Trust/Sandpiper, LLC

bc: R. Claytor
M. Gallagher
D. Ivy
Aimee Crady -Planning

INB/vr