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

> RE: HCA at Gateway Square 12401 W. Broad Street FILE NO: 5471, POD2022-00329

Dear Mr. Wilkins:

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 June 16, 2022.

DPU recommends approval of these plans by the Director of Planning.

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. Review the following comments on the Water and Sewer Design Calculations:
 - a. How were the equivalent residential units calculated? It should be calculated by dividing the Average Design Flow (GPM) by 300.
 - b. The design basis on the Water System Design is the same as the Sanitary Sewer Design. Update all subsequent calculation in the Water System Design.
 - c. Provide the Lowest Residual Pressure in System at Total Design Peak Flow under the Water System Design.

Cover Sheet:

- 3. Provide a contact person for the Owner.
- 4. Provide an original signature and date on the engineer's seal.
- 5. Update the Water and Sewer Quantities per the plan comments.

C-13:

- 6. Provide a note to see plans titled, "Animal Hospital at Gate Square, Dwg File No._____, by Townes Site Engineer" for information concerning existing utilities.
- 7. The existing utilities shown on the utility plan does not coordinate with the approved Gateway Square construction plans. Update the construction plans to match the approved Gateway Square plans.
- 8. There are several texts overlapping the utility references. Fix the text overlap so the utility referenced can be clearly seen.
- 9. The proposed utility easements overlap the existing easements. Combine the utility easements.
- 10. Label the size and material of the existing water and sewer mains/utilities.
- 11. Reference the deed book and page number (DB, PG) for the existing utilities shown on the plan.
- 12. Label the distance from the proposed water line to either the face or back of curb.
- 13. Modify the utility easement reference from "Waterline Easement" to "Utility Easement."
- 14. Use two 45° bends in replace of the 90° bends in the proposed water line.
- 15. The dedicated fire hydrant is not accessible behind the parking spaces. The dedicated fire hydrant will need to be relocated to an accessible location. DPU recommend installing the water meter, boundary valve and dedicated fire hydrant in the grass island located southeast of the proposed building.
- 16. Label the size and material of the fire service line before the boundary valve and domestic service line before the water meter.
- 17. The siamese connection must be installed within 50' of the dedicated fire hydrant.
- 18. The proposed building does not meet the 350' hose lay requirements. An additional fire hydrant will be required to cover the southeastern side of the building.
- 19. The gate valve installed before the 8" plug is not necessary since the water line will not be extended in the future.
- 20. Reference the sheet location of the proposed backflow preventer details in the backflow preventer reference.
- 21. The existing sewer service that will not be utilized with this project will need to be abandoned in accordance with DPU Standards. DPU recommends vacating the existing utility easement around the sewer service as well.
- 22. Provide the internal angle at the manhole connection.
- 23. A monitoring manhole is required for the project. Identify the monitoring manhole on the plan sheet.
- 24. Label the existing manhole on the plan.
- 25. The existing manhole is in the parking space. The manhole must be accessible for maintenance purposes.

Sheet C-17:

- 26. Remove the Project Summary Report Form from the construction plans. A Project Summary Report is not required for this project.
- 27. Remove the NOI and Engineering Report (Page 1 and 2) from the construction plans. The hard copy provided with the construction plans will suffice.

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- 28. The fixture valve for the kitchen sink is incorrect. Review and update all subsequent calculations.
- 29. The reduction factor on the Fire Flow Estimate Form for the sprinkler system is 50% instead of the 25%. Review and update all subsequent calculations.

Sheet C-18:

30. Show all utility crossings on the water profile. Also, be sure to update the water line profile per the plan comments.

Sheet C-19:

- 31. Several details provided on the plan will not be utilized with this project. Remove all details that do not pertain to the proposed construction plans.
- 32. A monitoring manhole detail has been provided; however, a monitoring manhole has not been identified on the construction plans.

Sheet C-20:

33. An irrigation backflow preventer detail has been provided; however, an irrigation meter has not been identified on the construction plans.

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,

ANT

Alice Thompson Utilities Engineer

John Revercomb, Mesa Commercial, LLC cc:

Ralph Claytor bc: Marchelle Sossong Rick Schwartz, DPW Daniel Ivy Aimee Crady, Planning

ANT/vr