Joseph Faudale, Jr. PE The Bay Companies 8500 Bell Creek Road Mechanicsville, VA 23116

> RE: Retreat at One Section 5 LOCATION: 954 Scott Rd FILE NO: 5459 POD NO. 2022-00123

Dear Mr. Faudale:

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 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 or prior to subdivision plat approval. 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. Revise sanitary sewer design calculations within the Engineering Report to show 93 townhouses from Section 4 contributing offsite sewer flow and revise other calculations accordingly.
- 3. Revise Project Summary Report to reflect correct water pipe quantities.
- 4. A Certificate to Construct (CTC) from DEQ will be required prior to DPU approval of Section 5 utility plans since the total average sewer flow will exceed 40,000gpd.

Cover Sheet

- 5. Revise the vicinity map to correctly show Athens Avenue and Scott Road leading to the site.
- 6. Revise the water and sewer material quantities in accordance with all utility plan comments and per the following:
 - Review and revise quantities for 8" and 6" waterline to match the plans.
 - There are currently 10 fire hydrant locations which also include the tees and valves.
 - Review and revise 8 x 4 tees and flushing hydrants.
 - Review and revise number of standard (32) versus vandalproof (3) manhole frame and covers
 - Coordinate with plans on size of sanitary laterals.

C2(Existing Conditions and Demolition)

- 7. Provide street addresses for the houses along Scott Road that are being affected by this development.
- 8. Add a note to refer to the utility plan for relocation of the water meter for 1008 Scott Road(GPIN 785-757-1793).
- 9. Show the existing water service and meter for 1000 Scott Road with the meter number.
- 10. For 1000 Scott Road, if a building demolition permit is desired prior to construction plan approval, then a separate disconnection or abandonment plan must be prepared and approved in advance of the demolition permit showing either disconnection locations for the water and sewer services or complete abandonment of both services at the water and sewer mains. Disconnection or abandonment of the services would be required prior to approval of the demolition permit.
- 11. For the <u>disconnection plan</u>, the following would need to be shown or commented on to the engineer:
 - Sewer laterals are to be disconnected at the property line or edge of utility easement and water services are to be disconnected on the customer side of the domestic meter.
 - Add a note on the plan stating whether services will be reused or capped for later abandonment.
 - Meter will stay within the box/vault. Provide the meter number on the plans.
 - Contractor shall notify DPU of disconnection schedule so that DPU metering staff can read the meter and turn off the service prior to disconnection, and DPU inspector can verify the work.
 - Account shall be transferred to Developer and will continue to be billed for service.
 - Connections shall be plugged prior to approval of site demolition permit.

C3(Overall)

- 12. The two bullet point utility notes in upper right corner are not applicable for this project. Sewer flow for sections 4 and 5 will be going a different direction than the rest of Retreat at One for which the first note was applicable. Also, DPU will be maintaining the sanitary laterals to the edge of the utility easement.
- 13. Show utility easements to GPIN 785-757-1793 for sewer access and to GPIN 786-759-0210 for water and sewer access.
- 14. Correctly label Blackstone Ave as Athens Ave.
- 15. Label this plan sheet as an overall utility plan.
- 16. Revise in accordance with all plan comments.

C4(Section 5 Overall)

- 17. Provide a 20-foot utility easement for sewer access to GPIN 785-757-1793 starting from manhole 141
- 18. Revise in accordance with all plan comments.

C8-C10(Layout & Utility)

- 19. See above comment on 20-foot utility easement.
- 20. Add a note that the service for 1008 Scott Road (GPIN 785-757-1793) will have to be replaced with a continuous run of 1" copper from the corporation stop to the meter box new location. Include the meter number on the plan callout.
- 21. Revise the CSB/CWB reference to be 333NE/SE/SW.

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- 22. Show all sanitary laterals to directly connect to the sewer main pipe, instead of the manhole, with at least 10 feet from the property boundary so that infiltration is minimized at the manholes. Obviously, some laterals will need to connect to terminal manholes.
- 23. Relocate fire hydrant near lot 6 to the corner near lot 10. Consequently, the waterline along Rivanna Hill Place can be all 6" main.
- 24. Provide an exception request to the DPU Director for all fire hydrants located closer than 50 feet to the building. Provide justification for the request.
- 25. Provide flushing hydrants per D-500 and D-505 at each end of water main within Rivanna Hill Place and at the end of Camerons Ferry Drive.
- 26. Provide 5 feet separation between all adjacent sanitary lateral connections to the main and 10 feet separation from adjacent water services.
- 27. Provide valves on each line side of the tee within Rivanna Hill Place. The valve at the branch side can be omitted.
- 28. Adjust valve location in conflict with storm pipe from structures 500-501 to at least 3 feet away.
- 29. Provide mechanical joint restraint for 11.25-degree bends in front of lots 10 and 11.
- 30. Show area of vertical waterline adjustment where crossing storm pipe from structures 510 to 505 to be consistent with profile.
- 31. Add note on plan and profile to horizontally rotate vertical bends 11.25 degrees for adjustment near storm structure 519 so that additional horizontal bend can be eliminated.
- 32. Bricked up openings within sewer manholes for future tie-in are not allowed by DPU. See manhole 117 on both plan and profile. These will be core holed at the time of extension.
- 33. Try to minimize the number of manholes within the turn of Magnolia Terrace Lane from manholes 142 to 145 while maintaining 10 feet separation from the water main and keeping the manhole in the center of the travel lane.

C11(Offsite Sanitary and Storm Sewer)

- 34. Provide benchmarks every 500 feet per DPU Standards for the offsite sewer.
- 35. Label existing manhole SP8 with the GIS ID.

C16-C18(Road, Utility and Storm Sewer Profiles)

- 36. Provide vandalproof frame and cover for manholes 117, 160, and 161 since outside of pavement.
- 37. A flushing hydrant is not needed for the small portion of waterline past the Rivanna Hill Road and Camerons Ferry Road intersection since this can be valved off and there are no services attached.
- 38. Consistent with plan view comment, adjust valve at station 34+50 of Rivanna Hill Road to avoid storm sewer crossing and have at least 3 feet separation edge to edge from valve box to the storm pipe.
- 39. The callout for an 8 x 6 reducer near manhole 122 can be omitted within the Rivanna Hill Road profile.
- 40. See plan view note for 11.25 horizontal bend being omitted with rotation of vertical bends in the Wilson Creek Lane profile near station 15+00.
- 41. At existing manhole SP8, the invert out elevation is 178.10 for the 12" sewer. The existing 8" sewer into this manhole is at an invert in elevation of 178.43.
- 42. Show and label all sanitary laterals that are deeper than 12 feet.

C19-C21(Storm Sewer Profiles)

43. On storm 905 to 900 profile, show the existing 16" waterline crossing near storm manhole 902.

C44(Sewer Shed Map)

44. Revise listed flow calculations for Retreat Section 4 to correctly show 93 units.

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L01(Conceptual Landscape)

45. 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."

L02(Lighting)

46. Locate individual yard lights so that these are at least 5 feet from water meters and lateral SIPs. These should also be adjusted so that the private services are not in contact with or encumbered by these lights for ease of maintenance.

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

Sincerely,

John L. Clark

John L. Clark, PE Utilities Engineer

cc: Jeremy Swink, Stanley Martin Homes, LLC

bc: Ralph Claytor
Marchelle Sossong
Ireini Botros
Megan Gallagher
Daniel Ivy

Christina Goggin, Planning

JLC/tt