Joseph Faudale, PE The Bay Companies, INC 8500 Bell Creek Rd Mechanicsville, VA 23116

> RE: Village at Virginia Center Commons Section 2 and Condos LOCATION: 10101 Brook Rd FILE NO: POD2023-00039

Dear Mr. Faudale:

We have reviewed the construction plans submitted to the Planning Department on March 30, 2023 and received by DPU on March 31, 2023.

Please address the following comments and resubmit revised construction plans for review. Water and Sewer Agreements that must be executed by the Owner and County for water and sewer improvements have not been executed.

General:

- 1. Owner to submit executed Utility Agreements prior to approval of building permits or prior to the utility pre-construction meeting and authorization to proceed with utility construction by DPU. 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. The sheet 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. Utility plans shall be submitted to DEQ for acceptance and certificate to construct (CTC) obtained from DEQ prior to DPU approval. Provide a request to DPU for the letter accepting flows.
- 3. Provide an exception request to the Director of Public Utilities for where hydrants are less than 50 feet from buildings and include the justification for the exception.

C1 Cover Sheet

4. Update water and sewer material quantities in accordance with all comments.

C2A Existing Conditions and Demolition Plan (Utilities and Drainage):

- 5. Revise Notes 2 and 10 to say "18" PVC".
- 6. Coordinate with utility plan comments and modify abandonment/removal of additional water and sewer mains.

C3A Overall Utility Plan:

- 7. As previously commented, the sewer main along Turning Point Dr is to be 18". This sewer needs to start from existing manhole 588SE017, which will need to be replaced, including the run to doghouse MH 10.
- 8. Show extension of 8" waterline to the end of the western stub of Gilligan Lane.
- 9. Show waterline extension within Teacher Boulevard to provide buildings 13 and 14 with domestic service connections and to provide adequate fire protection for the entire block.
- 10. As discussed, revise 12" waterline alignment to the east of building 4 to continue to Tuco Street and then east to the private drive to connect to existing 12" stub. The existing 12" waterline that extends across the area for future apartment building 3 can then be removed.
- 11. As discussed, extend the 8" waterline as previously shown within the private drive and terminate with a hydrant at least 50 feet from the county sports event center on that side of the drive.
- 12. Provide a water main cross within the intersection of Turning Point Drive and All-Star Place.
- 13. Add valves at the following locations so that there are at least 2 valves at each mainline tee:
 - On the south side of tee at Teacher Boulevard and Walter Road.
 - On the east and west sides of tee at Badger Road and Pinkman Road.
 - On the west side of tee at Badger Road and Fring Road.

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- On the north side of tee at All Star Place and Gilligan Lane.
- On the south side of tee at Bellow Boulevard and Fring Road.
- On the north side of tee at Bellow Boulevard and Badger Road.
- On the north side of tee at Bellow Boulevard and Gilligan Lane.

C9 Layout & Utility Plan (South):

- 14. Remove the extraneous "8" PVC W/L" label at the intersection of Badger Road and White Place, in front of building 15.
- 15. Confirm that the water meter connection for Block Q lot 4 is not within the waterline adjustment.
- 16. Show the waterline adjustment at the following locations:
 - Near storm structure 132 to match the profile.
 - At the intersection of Badger and Pinkman Road.
- 17. Provide DIP for sanitary sewer from manholes 9 to 11 since closer than 10 feet horizontally to parallel storm sewer.

C10 Layout & Utility Plan (East)

- 18. Provide a vertical waterline adjustment at the intersection of Gilligan Lane and All-Star Place to resolve crossing conflict between the plugged 8" water line and storm pipes 79-75.
- 19. Hydrant lead crossing storm sewer from structures 81-17 conflicts with storm pipe. No vertical adjustments are allowed within hydrant leads. Relocate the hydrant to be at the intersection of Turning Point Road and All-Star Place since one needs to be there.

C11 Layout & Utility Plan (North)

- 20. Include the GIS ID for the existing fire hydrant at the top center of this page: 588NE001H.
- 21. Show the waterline adjustment before the dedicated fire hydrant in Section 3. Account for the 22.5 $^{\circ}$ horizontal bend by rotating a couple of the vertical bends.
- 22. Show continuation of 12" waterline to the north within private drive northeast of Tuco Street.
- 23. Incorporate waterline changes discussed above in the overall plan for the Tuco Street and Private Drive area.
- 24. Show and label tie-in connection to existing 12" waterline east of All Star Place.

C12 Layout & Utility Plan (West)

- 25. The run of sanitary sewer from manholes 50 to 34 shall be DI since crossing the 8" waterline on Walter Road with less than 18" of separation. Update profile accordingly.
- 26. Show location of water meter vault for building 11 being at least 5 feet from the wall.
- 27. Show/outline where the access road will be through proposed Sec3 for maintenance. Does it follow the easement surrounding the proposed 8" PVC water line?

C17 Road, Utility, and Storm Sewer Profiles

- 28. Update all profiles in accordance with all comments.
- 29. Update all street intersection call outs throughout profiles as some call out previous plan's street names.
- 30. Regarding Tyrus Road Profile:
 - Revise the storm crossing near STA 10+20 to 30".
- 31. Regarding All Star Place Profile:
 - 12" water mains require at least 4' of depth of cover.
 - Revise the storm crossing at STA 13+50 to 15".
- 32. Regarding Gilligan Lane Profile:
 - Show the storm and water crossing on both sides of the 8" sanitary sewer crossing near STA12+15.
 - Remove manhole 41 since there doesn't appear to be a need for this extra manhole.
 - Provide a flattop manhole structure for manhole 40 by showing the flattop slab detail with notes and including a specific dimensioned structure height for the manufacturer on the plans.

C18 Road, Utility, and Storm Sewer Profiles

- 33. Regarding All Star Boulevard Profile:
 - Show the 6" PVC fire line crossings.

- 34. Regarding Badger Road Profile:
 - Combine vertical and horizontal bends near STA10+25 by rotating a bend.
- 35. Regarding Tuco Street Profile:
 - Coordinate with plan view and revise profile to show correct location of tees and crossings within this area. It appears that there is just one storm sewer crossing. Also, rotate vertical adjustment bends to accommodate any horizontal bend in alignment where possible.

C19 Road, Utility, and Storm Sewer Profiles

- 36. Regarding Turning Point Drive Profile:
 - Revise to show replacement of sewer with 18" sewer main up to and including EX MH 588SE017.
- 37. Regarding Walter Road Profile:
 - Remove the extra valve shown after the 8"x8" tee at STA11+20.
 - Revise to label as "Dedicated Fire hydrant..." near STA11+40.
 - Show how existing sanitary laterals from American Family Fitness will connect to proposed sewer and manhole. Show cross sections for each lateral.
 - Provide a vertical waterline adjustment for waterline under the sanitary sewer leaving manhole 51. Show the corresponding view of this in the Teacher Boulevard Profile too.
- 38. Regarding Teacher Boulevard Profile:
 - As previously commented, sewer main can be lowered to where there are 6" separation above storm pipe. Right now, the sewer run from MH 51-32 is shallow.
 - Specify aggregate backfill where sewer main has less than 3 feet of cover.
 - Show the 8" PVC waterline crossing near STA13+50.
 - Provide a vandalproof/watertight frame and cover for manhole 31 since outside of road.
- 39. Regarding Sanitary GIS588SE017 to MH4 Profile:
 - Show the 12" DI waterline crossing near STA10+15.
 - Revise the storm crossing at STA10+50 and STA11+25 to 24".

C20 Road, Utility, and Storm Sewer Profiles

- 40. Regarding Pinkman Road Profile:
 - Combine bends near STA11+30 by rotating a vertical bend 11.25 degrees horizontally.\
- 41. Regarding Bellow Boulevard Profile:
 - Just before STA11+50:
 - i. Combine bends by rotating vertical bends horizontally.
 - ii. Revise to show that the 8"x8" tee will not be in the waterline adjustment bends.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4501 or Kiara Korkuc at 501-4993 for any necessary clarifications.

Sincerely,

John L. Clark

John L. Clark, PE Utilities Engineer

cc: Brian McNeal – Shamin VCC LLC & VCC Partners LLC

Jeremy Swink - Stanley Martin Homes, LLC

Daniel Caskie – The Bay Companies, INC

bc: Marchelle Sossong

Daniel Ivy, Kiara Korkuc

Aimee Crady, Planning

KLK/vr