

December 7, 2022

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

RE: Virginia Center Commons Section 2 and Condos
LOCATION: 10101 Brook Rd
POD NO. 2022-00567

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 November 15, 2022 and received by DPU on November 17, 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. 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. Utility design shall be coordinated with an Overall master utility plan that is currently being developed by DPU and its consultant. We will keep you apprised of the status on this overall plan as it is currently under review by our staff. Consequently, we are not able to do a comprehensive review of the utilities until this utility plan design has been coordinated with the Overall master utility plan.
3. Update all sheets to reflect the recently approved plans for the Virginia Center Commons Apartments.
4. Utility plans shall be submitted to DEQ for acceptance and a certificate to construct (CTC) obtained from DEQ prior to DPU approval.

Cover Sheet

5. Revise water and sewer material quantities in accordance with all comments.

C2, C2A (existing conditions and demolition)

6. Update both sheets to reflect the work being done by the separate disconnection and abandonment plan submitted for this site.

7. Label all existing hydrants with GIS ID. Specify that all fire hydrants which are removed shall be returned to DPU Operations and shall not be reused.
8. The two cleanouts and manhole very near the southeast corner of American Family Fitness building should not be designated for removal per subsequent comment on overall utility plan.
9. Label the hydrant closest to the southeast corner of American Family Fitness as a dedicated hydrant and also show the fire department connection. These must not be removed prior to installing replacement appurtenances for this facility.
10. Water and sewer facilities on the east side of the Burlington Coat Factory do not appear to match DPU records. Please resurvey and show in field verified locations.
11. Provide calculations for sewer pump around flow of 1.33 MGD specified in the notes. DPU has an existing calculated peak flow of 1.5 MGD for this location.
12. Show location of manhole 588SE012 where bypass flows will be pumped too.
13. Existing 12" water main shall be relocated along Turning Point Drive and reconnect to existing prior to removal of the existing 12" water main.

C2B (easement vacation)

14. It should be noted on this sheet that utility easement vacations will only be approved by DPU after these utilities have been rerouted, existing utilities abandoned, and new utility easements recorded prior to vacating/quitclaiming the existing easement with a separate plat.

C3A (overall utility)

15. DPU record drawings show that there is a sanitary lateral serving the southeastern corner of the American Family Fitness building. Sewer design shall be modified to always provide sewer service to this building during demolition, construction, and for the foreseeable future.
16. There is also a dedicated hydrant and remote fire department connection for the American Family Fitness Center that is across from building 15 which will be detrimentally impacted by the proposed road layout for Walter Road. Replacement of these facilities will be required with the currently shown design. The abandonment and replacement of these facilities will have to be coordinated with American Family Fitness and the Fire Division as well as DPU.
17. Waterline running along the length of Teacher Boulevard is not consistent with the latest form-based development code requirements for primary roads. Alternate water layout shall be proposed that keeps utilities out of the primary road as much as possible.
18. Darken building footprint of American Family Fitness building.
19. Provide a note on plans stating, "HOA will own and maintain all sanitary sewer laterals from the main to the building". Engineer shall make sure that the same statement is made on the approved plat and in the HOA covenants.

C4(Erosion control ph1) and C5(Erosion control ph2)

20. Show location of all existing utilities and coordinate erosion control provisions with these utilities for both phases.

21. Add a note on the phase 1 plan regarding parking lot removal that the contractor is to take all precautions to protect water and sewer utilities, including manholes, valve boxes, and hydrants.
22. It appears that the eastern stockpile might be located over existing sanitary sewer that is to be retained. Please relocate.

C9-C12(layout & utility plan)

23. Sewer design must be coordinated with the proposed sewer being installed as part of the Virginia Center Commons Apartments that has already been approved. The Apartments plan shows in particular that the sewer which manhole 36 connects to will be abandoned.
24. All 12" water main shall be DIP per DPU Standards.
25. Provide a table to address the raising and lowering of existing manholes to finished grade. This table should include:
 - a. Existing top elevation.
 - b. Proposed top elevation.
 - c. Amount of modification required, i.e., vertical feet of raising or lowering.
 - d. Proposed method of adjusting each manhole.
 - e. Phase of construction each manhole modification is to be done.
26. 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."
27. Hydrants must not be blocked by parking to provide accessibility to the Fire Division.
28. Provide a detail of the traffic circle on Teachers Boulevard which shows what landscaping and hardscaping will occur. Currently, waterline and valves are shown to be crossing through this area.

C17-C20(Road, Utility and Storm profiles)

29. DPU as built information on GIS shows the sewer from existing to proposed manhole 5 has a slope of 0.359%.

C38-C39(utility details)

30. Include detail D-405 for the domestic meter RPZ inside the building, also reference on the plans. Detail D-420 can be removed to make room on sheet C38.
31. Revise the ISO fire flow calculations per the following:
 - Sprinklered buildings do not create an exposure factor to the subject building.
 - Specify whether the townhouses will have rated division walls or building separation walls. If there are building separation walls, provide engineer/architect certification as to whether it is a building separation wall in accordance with chapter 5 of the ISO Guide for Determination of Needed Fire Flow, June 2014 edition. If rated fire division walls, specify if these are in accordance with Virginia Residential Code latest edition and what the hour rating is.
 - The exposure factor created by lot 1 of block O in relation to lot 6 of block P for the townhouse calculation should be 0.126.
 - Only 1 hydrant is needed for 1000 gpm for the townhouse calculation.

L01(conceptual landscape)

32. All trees shall be located outside of DPU utility easements or at least 10 feet from utilities. A more enlarged view will be needed to assess this.

L02(lightning plan)

33. All light poles shall be located outside of DPU utility easements or at least 10 feet from utilities. A more enlarged view will be needed to assess this.

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
Daniel Ivy
Aimee Crady, Planning

JLC/vr