

March 24, 2022

Jeffery L. Staub, L.A.
Silvercore
7110 Forest Ave, Suite 204
Richmond, VA 23226

**RE: Beaver Road Townhouses
Beaver Road and Roxana Road
File No. 5570; POD2022-00084**

Dear Mr. Staub:

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 8, 2022.

□ DPU recommends approval of these plans by the Planning Commission.

Please address the attached 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. Resolve discrepancy where two different sheets (21 and 22) have the same sheet number as sheet 17.

Sheet 1 (Cover Sheet):

3. L.A. Seal with original signature and date is required on the Cover Sheet. A facsimile of seal, signature and date is acceptable on all other sheets.

Sheet 5 (Utility Plan):

4. The proposed sewer laterals are not acceptable and not in accordance with DPU Standards. Given the sewer pipe age, pipe material and unknown condition, individual laterals connections will not be acceptable without replacement of sewer main. Therefore, provide an 8" sewer main extension from manhole 219NE016 within entrance that has short run along the front drive aisle of each building with either single or dual laterals per D-180 or D-190. The sewer main will be owned by DPU.
5. Revise water and sewer material quantities in accordance with all comments.
6. Provide block and lot designations on utility plan.
7. The 1" backflow preventers can be eliminated since these are not required for residential townhouses.

8. Reference DPU details D-520 and D-525 for the proposed water services, D-495 for the proposed fire hydrants and D-180 or D-190 for proposed sewer laterals.
9. Provide GIS manhole ID number for all existing manholes shown on the plan.
10. Provide an individual or dual sewer lateral for sewer service for each townhouse. There should be one lateral per a water meter.
11. 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."
12. Show and label the existing 6"x8" reducer near the waterline tie-in location (see attached as built for location).
13. Revise the size of the proposed tapping sleeve and valve to 6"x6" and extend 6" main since this will be a short main extension to serve only a fire hydrant. An 8" main will be required if two fire hydrants are proposed off this extension. The main can end within 3' of the hydrant tee.
14. Provide 5' x 16' of utility easement around the back of the proposed fire hydrant.
15. Provide at least 5' of separation between proposed water service connections.
16. Identify the line shown on all sheets at the entrance of the proposed townhouses where it crosses the proposed waterline. It appears to have a "w" symbol on it.
17. Provide an additional fire hydrant to meet ISO required fire flow of 2000 gpm.
18. Show limits of open cut in existing road using 30% stippling.
19. Reference on the plans and use county survey monument. See Hanover Road/ Meadow Road and Hanover/Early Street intersections.
20. Provide a note on plans stating, "HOA will own and maintain all sanitary sewer laterals from the main to the building". The same note shall be added on the subdivision plat.

Sheet 20 (Notes and Details):

21. Eliminate unnecessary DPU details D-130 and D-400 and include DPU details D-190 and D-180 for sewer lateral connections.
22. Revise the ISO fire flow estimate form as follows:
 - Revise the type of occupancy to C-2 (0.85).
 - Use the exposure factors in the latest ISO guidance manual.
 - Given that these are individual townhouses with lots, there are typically walls between each unit at the property line. Clarify and certify whether there are rated fire division walls or building separation walls in accordance with the latest ISO guidance manual.
 - Revise calculations accordingly for effective area based on type of walls.

Sheet 22 (Notes and Details):

23. This sheet is labeled as sheet #17. Please revise the sheet number to 22.
24. Revise the title of this sheet to include "waterline profile". Revise the sheet title within the sheet index on the cover sheet as well.

25. Show symbols of the 8" valve (as part of the tapping sleeve and valve), fire hydrant tee and 8" plug within the waterline profile.
26. Provide at least 18" of vertical separation between the storm pipe and the proposed waterline within the waterline profile.

Sheet 23 (Lighting Plan):

27. Relocate the light pole sufficiently away from the private water service to the second most western townhouse. Currently it is shown directly on top of this service.

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
Utility Engineer

cc: Denise Whitehurst, Keystone Exchange

bc: M. Sossong
R. Claytor
J. Clark
Aimee Crady, Planning

INB/vr