

May 26, 2022

Brian Ditzler, PE
Timmons Group
1001 Boulders Parkway, Suite 300
Richmond, VA 23225

RE: Sweetspire
LOCATION: Pouncey Tract and N Gayton Rd
FILE NO. 5586 POD NO. 2022-00248

Dear Mr. Ditzler:

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 May 6, 2022, and received by DPU on May 11, 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. An Information Sheet for the Preparation of Utility Agreements has 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. Provide a note on plans stating, "HOA will own and maintain all sanitary sewer laterals from the main to the building".
3. Revise the Project Summary Report (Form F-10) per the following and resubmit:
 - Delete copper services from pipe quantity table. Include only watermain.
 - Leave signature space for project reviewer blank at the bottom of page.
 - Revise the maximum day demand to 11.7 GPM within the lower hydraulic evaluation table.
 - Revise the maximum day + fire flow using 1000 GPM for fire flow and 11.7 for maximum day.
 - Provide pressure information within the lower hydraulic evaluation table.
4. Revise the water and sewer design calculations form as follows:
 - Revise the source to be Henrico Public Utilities within the water system design.

- Revise total design peak flow, GPM to include the maximum day demand and not the peak hour flow.
5. The ISO form is not required since these are detached dwelling units and ISO fire flow will be based on separation distance between the units.

C4.0 (Utility Plan)

6. DPU strongly recommends extending the water line from the 8" waterline within the parking lot for 5000 Pouncey Tract Road instead of extending the waterline from Belair Place. An offsite easement will be required for this waterline extension. Also, provide a fire hydrant at the eastern entrance of this development. If the waterline will be extended from Belair Place, then revise the following:
 - Add a valve at the tie-in location.
 - Revise the pipe material of the proposed waterline from the tie-in location to the 8"x8" tee to DIP.
 - Revise the alignment of the proposed 8" waterline between houses 5 and 6 so that the waterline is centered between the houses and not too close to house 6 to provide more room for maintenance purposes.
 - Adjust buildable area for houses #5&6 to allow for any potential roof overhang or bay window being at least 10 feet from the proposed water main.
 - Show the foundation for houses # 5 & 6 and provide at least 10' of separation between the foundation and the water main.
 - Show underline electric and AC units between houses 5&6 and locate any electric lines and structures outside the utility easement for the proposed waterline.
 - Provide drivable road that will support heavy equipment (backhoe, dump truck) from Belair Place for maintenance accessibility for the proposed waterline.
 - No trees or shrubs allowed within the easement from tie-in location to the road.
7. Label roads on the utility plan.
8. Provide an exception request to the DPU Director for hydrants where 50 feet setback distance cannot be met and provide justification.
9. Provide the minimum finished floor elevation for each dwelling.
10. Revise the material of the proposed waterline from the tie-in location within Bowles Hill Court to the 2nd 45-degree bend to DIP.
11. Provide internal angle and bearings for all sewer runs on the plan view.
12. Add the following note, "Where possible in unpaved areas, manhole castings shall be approximately 12 inches above final grade using appropriate covers (i.e. - vandalproof, watertight)" unless within maintained yard.
13. Provide vandal proof/watertight frame and cover for manhole 2 and lower manhole top elevation to 1' above grade.
14. Provide mechanical joint restraint for 22.5° bend near sanitary sewer lateral for house 4.
15. Reference on the plans and use county survey monuments.

16. Reference CWB/CSB sheets in the bottom right corner of the plan sheet on the utility plan.
17. Reference DPU details D-495 for fire hydrants, D-180 for sewer laterals, D-525 & D-520 for water services and D-410 for the irrigation meter.
18. Revise the number of 8" valves to 3 instead of 2 within the callout note for the 8"x8" tee in front of lots 5 and 6.
19. Provide benchmarks consistent with DPU Spec. 5.5 L. (Add note for contractor reestablishing benchmarks if temporary and can be disturbed).
20. Change the material type of the sewer main from PVC to DI for sewer pipe that has less than 5.5' of cover.
21. Provide DIP laterals where connecting to DIP sewer main. Label on plan view and include in sewer material quantities.
22. In accordance with the profiles, show the waterline adjustment locations where waterline crosses storm pipes and sanitary sewer laterals. Also, add DPU detail reference D-485 for the vertical waterline adjustments.
23. Add a 3rd valve to 8"x8" tee near sewer manhole 5 to allow for additional supply direction from Bowles Hill Court in case of shutdown related to services and maintenance for lots 6-15.

C4.1(Sanitary Sewer Profiles)

24. Show invert elevations for laterals entering manholes so that crowns match with the sewer main.
25. The following comments pertain to Sanitary Sewer profile (Garnet Parke):
 - Use select backfill between the storm pipe crossing and sanitary sewer pipe near STA 7+75 where the vertical separation between the storm pipe crossing and sanitary sewer pipe is less than 1'.
 - Change the material of the proposed sewer pipes between manholes 2 and 4 to DIP since these pipes have less than 5.5' of cover.
 - Revise the material of the hydrant lead crossings near STA 3+80 and 7+25 to DI.
 - Provide a stationing equality at manhole 5.
26. The following comments pertain to Sanitary Sewer profile (Little Henry):
 - Revise the material of the hydrant lead crossing near STA 2+50 to DI.
 - Provide a stationing equality at manhole 5.
 - Design elevation drop across manhole 11 inverts to not exceed 0.5 foot.
 - Storm pipe can cross under the sanitary sewer pipe with only 6" of vertical separation near STA 2+80.

C4.2(Waterline Profiles)

27. Provide different symbols for bends, tees, and valves.
28. Use the term "vertical waterline adjustment" per D-485 to more accurately describe the vertical bends in these areas where waterline has to be vertically adjusted.
29. Provide house number for all the sanitary sewer crossings shown on the profile.
30. The following comments pertain to Waterline Profile (Garnet Parke):

- Revise the material of the proposed waterline from the tie-in location to STA 2+00 to DIP.
 - Show the 2nd 45-degree bend near house #20.
 - The 2.5-degree vertical deflection near STA 1+25 does not need to be shown on the profile as this is within the allowable pipe joint deflection.
31. The following comments pertain to Waterline Profile (Blair Place Connection):
- Revise the profile in accordance with the utility comments.
 - Revise the material of the proposed water main to DIP.

C4.6 (Utility Notes and Details):

32. Revise water and sewer material quantities in accordance with all plan comments.
33. Provide the peak demand for the irrigation system within the callout for the irrigation meter on the utility sheet and omit the meter sizing form.
34. Remove the ISO form since not applicable for single dwellings.

W1.0 (Water System Hydraulic Analysis):

35. Revise hydraulic water model to use 1000 GPM instead of 1750 GPM based on the distance between buildings.

L1.0-L2.0 (Conceptual Landscape and lighting Plan):

36. Tree plantings and light poles 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."

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

Utilities Engineer

cc: Chris Simons, Eagle Construction of VA, LLC

bc: Megan Gallagher
Daniel Ivy
John Clark
Spencer Norman, Planning

INB/tt