

COMMONWEALTH OF VIRGINIA
COUNTY OF HENRICO



DEPARTMENT OF PUBLIC UTILITIES
804.501.4517

October 2, 2023

Sean Dougherty, PE
Kimley Horn and Associates Inc.
2035 Maywill St., Suite 200
Richmond, VA 23230

**RE: Arcadia – Willson Road Improvements
2031 Towhee Lane
POD NO. 2023-00399**

Dear Mr. Dougherty:

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 September 15, 2023.

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. An Information Sheet for Preparation of Agreements for Water and/or Sewer Service is required but has not yet been submitted. The Information Sheet allows the Department of Public Utilities to prepare the Water and Sewer Agreements that must then be executed by the Owner and the County prior to approval of the utility plans or building permits. It is recommended that the Information Sheet be submitted as soon as possible to avoid delays on approval of plans. Preparation of the agreements may take up to 15 days after receipt of the Information sheet. Execution by the County after execution by the Owner may take up to 10 days. Conflicts between the completed Information Sheet and the plans may generate additional review comments.
2. Check "NO" for the ISO calculations on the plans, Information sheet, sewer design form, and NOI on the front page of Engineering Report. These forms were not turned in with the plan.
3. Provide an overall utility plan in the construction plan.
4. Where did the calculations come from on the Local Review Form and Engineering Report? There is no residential shown on the construction plans.

Cover Sheet:

5. Original signature and date are required on the engineering seal.
6. The road names need to be more clear and add Towhee Lane on the vicinity map.
7. Remove the dark shaded background on the vicinity map.

Stormwater Profiles CG-201:

8. Show all utility crossings on the storm profile.

Water Main Plan CU-101:

9. Make the grading minimum cover at 3.5 feet across the profile for the waterline.
10. A 16" water main will be required IN Willson Rd. instead of the 12" water line per DPU Master Planning for the area.
11. Fire hydrants are required every 500' for properties zoned commercial, multifamily, and every 1,000' for properties zoned agricultural and single family.
12. Per DPU records, the existing casing pipe around the 16" water main is 24" and the length is referenced as 85'. The size and length of the casing pipe shown on the plan does not coordinate with DPU records. Field verify the location of the casing pipe to ensure the water main connection does not need to be relocated.
13. Show the ditch line located in the ROW. Be advised, the water main should not be located within the limits of the ditch line.
14. Water mains should be located 8' from the storm pipes.
15. Show the location of the existing driveways in Willson Rd.
16. Label the distance from the water line to edge of pavement.
17. Add the size and material of the waterline on the profile on all pages.
18. Add three Northing/Easting points to the plans.
19. Add the CSB/CWB 229SW to the bottom of the utility plan pages.

Water Main Plan CU-102:

20. Show the fire hydrants to the grade line on the profile.

Water Main Plan CU-103:

21. Per standards, a 12" water line requires a 24" diameter steel casing pipe.
22. Provide a 10' horizontal separation between storm sewer and water lines. Check pages CU-103 and CU-104.
23. The proposed fire hydrant cannot be installed on top of the storm sewer. Either relocate the storm sewer or relocate the fire hydrant. Be advised, fire hydrants need to be a minimum of 7' for the back of the curb.
24. Revise the tee size for the proposed fire hydrant at STA 221+19.98 from 12"x8" to 12"x6" tee.
25. Provide a utility easement around the water main that extends out of the ROW.
26. Provide 5' separation between the limits of the bends and edge of casing pipe.
27. DPU needs to review the hydraulic model for future development to ensure the size of the water main stubs are adequate to serve the development.
28. Provide a valve prior to the plugs to maintain fire protection when the water line is extended in the future.
29. Label the distance from the water line to the face or back of curb.
30. Two valves are required at a tee and three valves are required at a cross. Update all utility plan sheets accordingly.

Water Main Plan CU-104:

31. The water line stub at STA 223+20.91 is not profiled. All water lines need to be profiled. See sheet CU-103 as well.

Water Main Plan CU-105:

32. Show the existing storm crossing near STA 119+56.
33. There are no 11-degree or 11.3-degree bends. Revise the bends to 11.25 degrees.
34. There needs to be 18" vertical clearance between the waterline and storm sewer. Update the plan and profile.

35. There are three (3) storm pipes crossing the water line but only one is profiled. Review and revise.

Utility Details CU-201:

36. Add the water and sewer notes (F-11) to the details page.
37. Add the material notes (F-6) to the details page.
38. Remove the leak detector from the encasement pipe detail.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4508 or Nolan Ekers 501-4992.

Sincerely,



Alice Thompson
Utilities Engineer

cc: Daniel Jones, East West Communities
