

September 16, 2021

Ryan Yaeger, PE
Bohler
9100 Arboretum Pkwy, Suite 360
Richmond, VA 23236

**RE: One Pouncey
4545 Pouncey Tract Rd
File No: 4888; POD No: 2021-00318**

Dear Ms. Yaeger:

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 August 2, 2021.

DPU continues to recommend approval of these plans by the Planning Commission.

Please address the following comments before submitting the construction plans for signature.

General:

1. Will the utilities shown on this project be phased?
2. Provide the Domestic Meter Sizing and Fire Flow Estimate Forms on the construction plans.
3. Based on the Total Combined Fixture Value of 3827.6, revise the meter size on the Domestic Meter Sizing Form to a dual 2" water meter.
4. How was the total area for the residential buildings calculated? The area should have been evaluated using the total square footage of the first floor and 50% of the total square footage for each additional floor. Update the form accordingly.
5. There is no exposure for the adjacent building if the building is sprinklered or greater than 40' from the wall of the subject building. Update the Fire Flow Estimate Forms as necessary.
6. A Domestic Meter Sizing Form is required for all buildings except for the carriage houses.
7. A Fire Flow Estimate Form is required for each building.
8. Provide a hydraulic model of the water system for the proposed project.
9. Be advised, landscaping and lighting plans cannot be approved until the final construction plans are approved.
10. Per the rezoning case 2020-00018, an analysis of the downstream sewer system is required to determine if upgrades to the sewer mains are needed. The developer will be required to make any needed improvements.
11. Provide the water and sanitary quantities on the construction plans.
12. Provide the appropriate DPU Standard Drawing Details on the construction plans.

13. 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 in 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.

Cover Sheet:

14. There two sheets are referenced as “C-104” in the construction plans. Coordinate the sheet numbers in the construction plans with the Sheet Index.
15. Provide the original signature and date on the engineer’s seal on the cover sheet.
16. Remove the word “Preliminary” from the project title.

Sheet C-202:

17. Crosshatch all existing water and sewer mains to be removed/abandoned on the demolition sheet to clearly differentiate what utilities will remain and what will be abandoned.
18. Provide a note indicating all existing utilities to be abandoned shall be abandoned in accordance with DPU Standards 1.1.01C to 1.4.01C.
19. Be advised, if a building demolition permit is desired prior to construction plan approval, then a separate disconnection or abandonment plan must be prepared and approved in advance of the demolition permit showing either disconnection locations for the water and sewer services or complete abandonment of both services at the water and sewer mains. Disconnection or abandonment of the services would be required prior to approval of the demolition permit.
20. Show all the existing utility easements and provide a DB and PG for the existing utility easements on the plan. See all utility sheets as well.
21. Label the size and material type of all existing water and sewer mains. See all utility sheets as well.
22. Clearly show and reference all existing fire hydrants, meters, sewer laterals, sewer and water mains that will be abandoned on the demolition sheet.
23. Reference the size and meter numbers for all existing meters to be abandoned with this demolition plan.
24. Provide the GIS MH ID and CSB station, rim and invert information for all existing manholes shown on the plan. See all utility sheets as well.
25. Provide the direction of flow arrows on the existing sewer mains. See all utility sheets as well.
26. The existing utility easements cannot be vacated until the proposed water and sewer mains have been installed, tested, and inspected.
27. The easement located northeast of the site (PB 129, PG 401) cannot be vacated. The proposed water line will need to connect to the existing water line in Parsons Walk at Twin Hickory Section-A.

Sheet C-501:

- 28. Show the utility plan sheet match-line locations on the Overall Utility Plan.
- 29. Provide at least four N/E points on the plan sheet.

Sheet C-502:

- 30. Label the distance from the proposed water line to either the face or back of curb.
- 31. Reference the distance from the existing water main in Twin Hickory Lake Drive to the face of curb on the new turn lane.
- 32. The water main should be at least 4' from the face of curb to prevent fittings from being installed in the gutter pan.
- 33. Are there any waterline adjustments in the water main? If so, show the location of the waterline adjustments by providing a bubble, oval or <<>> sign where the water main will adjust under the storm sewer.
- 34. Indicate the size and material type of all proposed water and sewer mains. See all utility sheets.
- 35. Provide a utility easement around the proposed water and sewer mains and utilities.
- 36. All proposed valves should be installed near the tees. Review the valves on the fire hydrant leads.
- 37. Reference the detail number for the proposed water meters.
- 38. Label the size and material of the domestic service lines prior to the water meters. See all utility sheets.
- 39. The meter locations for Retail 1 and 2 are too close to the proposed buildings. Provide a minimum of 5' separation from the meter to the building.
- 40. The cover sheet indicates sprinklers will be installed; however, no fire system lines are shown on the utility plan sheets.
- 41. If a fire sprinkler system will be installed in the buildings, the following items will be required for the fire sprinkler system: dedicated fire hydrant, siamese connection, boundary valve, and a fire system backflow preventer.
- 42. Fire hydrants are required to be installed at the end of the water mains for adequate flushing of the water main. Relocate the water service line for Retail-1 before to the fire hydrant connection at the end of the water main.
- 43. Show the location of all roof drains, electric, Verizon, and gas lines on the utility plan.
- 44. There should be no reducers in the domestic service lines. Use an 8" x 4" tee with a 2" tapped plug for the proposed 1-1/2" and 2" water meters per D-530 in DPU Standards.
- 45. Use a 1-1/2" corp stop to connect the 1" water meters to the 8" water pipes.
- 46. DPU do not allow the installation of 3" water meters. Based on the Total Combined Fixture Value of 3827.6, a dual 2" water meter will be required for the residential buildings. Review and revised the water meter callouts.
- 47. What additional amenities will be in the proposed residential buildings?
- 48. Provide the pool demand on the Domestic Meter Sizing form for the residential buildings that will have a pool.
- 49. The existing fire hydrant at the intersection of Twin Hickory Lake Drive and Pouncey Tract Rd may conflict with the proposed sidewalk. Show the location of the existing fire

- hydrant to avoid any conflicts. Review the fire hydrant located in Pouncey Tract Rd as well.
50. The size of the proposed water main tap in Twin Hickory Lake Drive is incorrect per DPU as-builts. Has the size of the water line in Twin Hickory Lake Drive been field verified?
 51. The existing fire hydrant in Twin Hickory Lake Drive located north of Building-2 is shown in the road. The fire hydrant will need to be removed and replaced with a new hydrant.
 52. Use a tapping sleeve & valve versus a “tee” connection to connect to the existing water main in Twin Hickory Lake Drive to prevent a water main shutdown.
 53. Remove all proposed bends in the fire hydrant lead. The installation of a fire hydrant should be installed per D-495.
 54. The domestic water service lines should not deflect between the water meter and water main connection. If the water service line needs to deflect, place a bend in the line after the water meter.
 55. Provide and show the location of the proposed water meters to serve the Carriage Houses. See all utility plan sheets.
 56. Provide a loop in the water line system by connecting the onsite water line to the existing 8” water line in Haven Mews Circle.
 57. Provide water line stationing on the utility plans.
 58. Provide three valves at a cross.
 59. Fire hydrants should be installed 50’ from the buildings. Either relocate the fire hydrants or provide an exception to DPU Standards.
 60. Be advised, one hydrant is required for every 1000gpm on the Fire Flow Estimate Form. Update the forms and revise the utility plans to add the additional fire hydrants required to meet ISO requirements.
 61. Be advised, sewer laterals should be installed at a minimum slope of 2.08% to the edge of the utility easement or ROW line. The sewer slope can be decreased to a minimum 1.04% after the lateral has left the easement or right of way in accordance with Building Inspections Standards.
 62. Provide a minimum of 90° angle between the upstream and downstream sewer connection. Review the angles at MH-2, MH-7, MH-12.
 63. A monitoring manhole will be required for each retail building and may be required for the residential buildings. Ensure the monitoring manholes are located in an accessible and safe location for our monitoring crew.
 64. Be advised, all flow from a building must go through the monitoring manhole.
 65. Provide only one sewer lateral per a water meter. See all utility sheets as well.
 66. Label all the proposed manholes on the plan.
 67. DPU recommends using a “tee” connection to connect the sewer lateral for Building-2 to the sewer main.
 68. Buildings should be located 15’ from the sewer mains. Review the location of Carriage House-2 and the proposed sewer main.
 69. Provide a sequence of construction for the proposed sanitary sewer installation.

Sheet C5.03:

REVISED CONSTRUCTION PLANS REQUIRED

70. Fire hydrants should be installed no more than 7' from the back of curb. Review the existing fire hydrant in Pouncey Tract Rd.
71. Callout the removal of the existing plug in Pouncey Place Rd.
72. Be advised, a domestic backflow preventer may be required for the Residential Buildings.
73. A RPZ backflow preventer is required for all fire sprinkler systems.
74. Relocate all water lines out of the gutter pan. Review the water line location south of Building-3.
75. Provide separate water services for Carriage Houses 3 and 4.

Sheet C8.01:

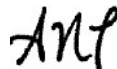
76. Several storm sewer crossings are missing from the sanitary sewer profile.
77. Tie the sewer main from MH-3 to the bench of MH-2. There should be a .10 fall across the manhole.
78. Provide the direction or manhole number for the three invert ins at MH-2. Update all inverts at each manhole on the profiles.
79. Provide the invert in for each sewer service on the profiles.
80. MH-13 and 14 are not labeled on the utility plan sheet.

Sheet C8.02:

81. The water main profile needs to be updated to coordinate with the utility plan.
82. Show all sanitary sewer crossings on the water main profiles.

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4508 or John Yi at 501-4511.

Sincerely,



Alice Thompson
Utilities Engineer

cc: Nolen Blackwood, Blackwood Development Company, LLC

bc: Ralph Claytor
Daniel Ivy
M. Gallagher
M. Kennedy, Planning

ANT/vr

REVISED CONSTRUCTION PLANS REQUIRED