

December 6, 2023

Monte Lewis, P.E.
E. D. Lewis and Associates, P.C.
2116 Spencer Road
Richmond, VA 23230

**RE: Wrighthaven Square Apartments
 Libbie Ave
 POD2023-00493**

Dear Mr. Lewis:

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 8, 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 has not been submitted. The Information Sheet allows the Department of Public Utilities to prepare the Water and Sewer Agreements which must then be executed by the Owner and the County prior to approval of building permits and/or prior to the utility pre-construction meeting and authorization to proceed with utility construction. It is recommended that the Information Sheet be submitted as soon as possible to avoid delays in either of these steps. Preparation of the Agreements may take up to 15 days after receipt of the Information Sheet and 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. Include D-535 on the Utility Details sheet.

Cover Sheet:

3. Provide original signature and date on the engineer's seal.
4. Revise water and sewer material quantities in accordance with all comments.
5. Correct the order of each sheet to coordinate with Sheet Index. Ensure that each sheet on the Index is included with the plans.

Sheet DEMO – 1 (Utility Disconnect and Demo Plan):

6. Provide a note indicating all existing utilities to be abandoned shall be done in accordance with DPU Standards 1.4.01C and 10.3.10.
7. The sanitary sewer lines shown as abandoned in the roadway to cul-de-sac roadway was abandoned at the main in Libbie Ave. Correctly show all the utility lines abandoned at the main as completed with the Westborne Plans. Review the water lines as well. See Sheet DEMO-2 as well.
8. Provide a note stating "See plans titled "Westbourne, by ED Lewis & Associates, DWG 2022-093" for information concerning existing utilities.

9. All utilities that were abandoned with the Westbourne plans should be removed from the plan to avoid any confusion between what was abandoned and what needs to be abandoned with this project. Several of the utility abandonment was done with the Westbourne plans.

Sheet DEMO - 2 (Utility Disconnect and Demo Plan):

10. A sequence of construction is required for the sanitary sewer installation for the new pipe between MH-14 and MH-15 and the abandonment of the existing main that continues to serve the existing homes to remain.
11. Remove plugs on the sanitary sewer line, needs to be abandoned at manhole.
12. Will the 6" waterline be abandoned? If so, align the demo layer and the existing waterline.

Sheet UTIL - 1 (Utility Plan):

13. All public utilities need to be shown within easements.
14. Provide note indicating DI laterals are required on DI mains.
15. Confirm with Building Inspections that one fire service line can serve two buildings.
16. The water meter for Building 2 should be moved before the fire hydrant for adequate flushing.
17. No walls or structures are allowed in utility easements.
18. Provide a fire hydrant in Bethlehem Rd for additional fire protection for this and adjacent properties.
19. The storm pipe that flows to structure 4-10 is too close to the water main in Libbie Ave.
20. The detention system is not allowed in the utility easement. Relocate the system out of the utility easement.
21. The leader line to the water fitting for Building-4 is not pointing to the correct symbols. Review and revise as necessary.
22. Move STR-5 out of the utility easement.
23. Add a valve to the northern side of the 8" x 8" tee branch located north of Building-7.

Sheet UTIL-2:

24. Is the distance labeled from water main to the face or back of curb?
25. DPU do not supply 2-1/2" corp stops and copper service lines. Use an 8" x 4" tee, 4" GV, 4" DI with a 2" tapped plug for proposed 2" water meters per D- 535-1.
26. All existing water line stubs in Libbie Ave not utilized with this project will need to be abandoned with this project.
27. Relocate the fire hydrant at the end of the water main located north of Building-11 for adequate flushing of the water main. Review the water line located north of Building-8 as well.
28. Be sure to either shift the utilities in the easement or provide a utility easement around all boundary valves and water meters.
29. Why does Bldg-9 have two sewer lateral connections?
30. Provide the rim and invert information for the MMH.
31. Provide internal angles at each manhole and at the manhole connection. See all utility sheets.
32. What is the rectangle box located behind the Clubhouse that has a sanitary sewer service that discharges to MMH-11?
33. Is MH-9 a new manhole or a doghouse manhole? If MH-9 is a new manhole, the existing sewer upstream of MH-9 needs to be abandoned in accordance with DPU Standards.
34. Is the sewer main public or private? If the sewer is private, label the sewer as private on the utility plan and profiles.
35. Reference the GIS MH ID and surveyed MH rim and invert information for the existing manholes.
36. Be sure to provide benchmarks within 500' in the area of the sanitary sewer mains.
37. Provide internal angles at the manhole connections.

38. The existing sanitary sewer upstream of MH-4 to Building-11 can be private since it only serves Building-11. Quitclaim the existing easement and reference the sewer as "Private."
39. Provide a table to address the raising and/or lowering of existing manholes to finished grade. This table should include:
 - a. Existing top elevation.
 - b. Proposed top elevation.
 - c. The 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.

Sheet UTIL-3:

40. There are several fire hydrants located 50' from the proposed buildings. Either relocate the fire hydrant or request an exception to DPU Standards.
41. DPU do allow the installation of adjustment in the domestic service lines unless it is located after the meter. Review the water line adjustment in the domestic service line for Building-14.
42. A ¾" copper service line is referenced for the Maintenance Bldg. The size of the domestic service line from the water main to the water meter must be 1" in accordance with DPU Standards; however, a ¾" service line may be used after the water meter on the private side.
43. Provide the inches (") symbol for the 12" x 8" cross north of STR-41.
44. There is a water line adjustment symbol missing from the water line at STR-42.
45. Provide either a fire or flushing hydrant at the end of the existing water line in Spencer Rd before the 6" plug.
46. Several water line fittings are not referenced on the plan sheet. Review and revise as necessary. See all utility plan sheets.
47. Remove the flushing hydrant at the end of the existing water line in Coopers Walk Ln. See the flushing hydrant at the end of the water main in Libbie Lake West as well.
48. Provide a utility easement around the portion of sanitary sewer line that extends out of the ROW of Spencer Rd.
49. Label the material of all existing water and sewer mains on the plan view. See all utility sheets.
50. Review the size of the water connection in Spencer Rd and Coopers Walk Ln. Change the 6" x 8" reducer to an 8" x 6" reducer.
51. To allow a same size tap on the existing 6" cast iron water line in Spencer Rd, use a 6" x 6" TS& V with a full pattern mechanical joint.
52. Specify an 8" x 6" cast iron compression saddle will be used for the sanitary sewer lateral connection to the existing 8" sewer pipes in Indigo Rd
53. Provide a sequence of construction for the water line adjustment and cross installation in Indigo Rd. The sequence of construction must include the following information:
 - a. Contact DPU Operation before construction starts to ensure all the existing valves are operating properly.
 - b. Effected homeowners of the water main shutdown will be contacted two weeks before construction starts.
 - c. The Fire Marshall will be onsite during the shutdown.

Sheet UTIL-4:

54. The utility easements (located northeast of Building-15) around the water line and fire hydrant are not aligned with each other.
55. Label the width of the utility easements. See all utility sheets.
56. The water line adjustment symbol is missing from the water line at STR-10.

Sheet PROF 1 -3:

57. Show all water and sanitary sewer crossings on the storm sewer profiles.

Sheet PROF 4 and 5:

58. Title the profiles to help identify the location of the utility plan sheet.

59. Several water line fittings are missing or labeled incorrectly on the water line profile. Coordinate the profiles with the utility plan.

60. Show all storm pipes and drain crossings on the water line profile.

61. Label the vertical clearance between the storm drains and water line pipes.

62. The water line is shown adjusting under the sanitary sewer between STA 10+00 and 11+00. If the water line will be adjusted under the sanitary sewer, then both water and sanitary sewer pipes will need to be ductile iron.

63. The material of the existing 12" water line in Distillers Lane is labeled incorrectly.

Sheet PROF 6:

64. The inverts label for the existing manholes on the utility plan sheet does not match what is provided on the profile. Are the inverts referenced on the profile survey information?

65. Profile the doghouse manhole to the next upstream and downstream manhole.

Sheet Calc Water:

66. DPU is reviewing the Hydraulic Water Model and will contact the engineer if additional information is needed or if there are any issues with the calculations.

67. A sanitary sewer analysis will be required for the additional sewer flow added to the existing sanitary sewer systems.

68. On the Fire Flow Estimate for the 4-story buildings, the classification is identified as apartments and retail. Will retail be installed in the apartment buildings? If so, which buildings will have retail? What type of retail? Will the retail serve outside patrons?

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4508 or Kenisha Williams 501-4600.

Sincerely,



Alice Thompson
Utilities Engineer

cc: Shane Finnegan, Midtown Land partners LLC

bc: Marchelle Sossong
Ralph Claytor
Daniel Ivy
Aimee Crady, Planning

ANT/vr