

May 28, 2021

Steven M. Worthington, PE
Christopher Consultants
11551 Nuckols Road, Suite Z-1
Glen Allen, VA 23059

RE: Morningside and West Broad Mixed Use
6303 Morningside Drive
FILE NO. 5513 POD2021-00193

Dear Mr. Worthington:

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 12, 2021.

DPU recommends approval of these plans by the Planning Commission.

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

Sheet C100 (Cover Sheet):

1. Provide an original signature on the P.E. seal on the cover sheet. All other sheets can have facsimile signatures.
2. Check "no" in the box for well, septic, and other in item 9 of the site data.
3. Clarify the number of residential units in item 12C of the site data as it does not match with what is shown in the utility plan. Are there supposed to be 8 or 9 units?

Sheet C300 (Existing Conditions):

4. The 20' easement for the existing sanitary sewer on site must be record if it has not been recorded previously. Provide the DB & PG. Update where necessary.
5. Indicate the size and materials of all existing utilities. Update on all sheets.
6. Show all the existing water & sanitary sewer services, clean-out, and meter on site and the neighboring sites within the scope of the project.
7. Clearly show all existing water and gas valves. Update where necessary.
8. Show all the gas lines on Morningside Drive and Broad Street.
9. Show the existing 2.25" water line and valve.
10. Correct the location of the existing 12" water line crossing Broad Street. This waterline is being back tapped.
11. Show the existing sanitary sewer manhole south of the site.
12. Include CSB or GIS information for all existing manholes by including MH ID or Station Numbers, top elevations, and inverts. Update where necessary.

13. Provide the surveyed elevations and inverts for all the existing manholes surrounding the site. Update on all sheets.
14. Existing water and sanitary sewer service connections not utilized must be abandoned at the main.
15. Include the following note on this sheet: "Utilities to be abandoned shall be abandoned per DPU standards 1.4.01 C and 10.3.10."
16. Add the following notes to this sheet:
 - a. Contractor shall notify DPU of the demolition schedule so that DPU metering staff can read the meter and turn off the service prior to disconnection, and DPU inspector can verify the work.
 - b. Meter will be removed with the present of the DPU staff and return to DPU Operations Division.
 - c. Account will be finalized, and billing will stop only after proper abandonment of the services has been verified by DPU.

Sheet C410 (Utility Plan):

17. All comments on existing conditions sheet also apply to this sheet.
18. Show the proposed 20' sewer easement if the easement has not been recorded.
19. Relocate the dumpster to another location out of the sewer easement area.
20. Add the following procedures for installing 6" lateral on 8" VCP Sewer Pipe (lined):
 - a. Breakout an area of the host pipe large enough to install an Inserta Tee.
 - b. Cut circular hole in liner pipe using a hole saw per manufacture instructions.
 - c. Install the three-piece Inserta Tee (rubber boot, PVC hub & stainless-steel band) directly on the liner pipe per manufactures instructions.
21. Label the clean-out to be traffic rated. Provide detail.
22. Proposed clean-out is too close to the fire line. Is it possible to shorten the fire line and come into the building sooner?
23. Proposed FDC on building must be approved by the Fire Department. We normally ask that the FDC be outside of the fall line/collapse zone of the building and within 50 feet of the dedicated fire hydrant. The FDC is currently shown to be approximately 80 feet from the dedicated fire hydrant.
24. Another fire hydrant will be required on site in addition to the dedicated fire hydrant.
25. Provide additional 5 feet of easement behind the fire hydrant.
26. Delete the short piece of waterline at the site entrance going westward toward the curb and gutter.
27. The current waterline layout is unacceptable. There needs to be a fire hydrant or flushing hydrant at the end of the water line. Recommend providing an 8" water main from Morningside Drive to the site with a plug and the fire hydrant at the end of the water line. The fire line can be tee off from this 8" main line. The water service can also tie to this main line using corporation stop.
28. Label the size of the corporation stop to be 1 ½" instead of 1 inch.
29. Label the water service pipe to be 1 ½" copper pipe.
30. Relocate the water service line to be at least 5 feet from the bend or tee.

31. Label the size of the boundary valve.
32. Label the bend east of the 8"x8" tee to be 90 degrees instead of 45 degrees.
33. Add a valve at the 8"x8" tee.
34. Provide a backflow preventer for the domestic water line. Label the size of the backflow preventer. Label to install it per detail D-405.
35. A grease trap and monitoring manhole will be required if there is going to be a restaurant on the first floor.
36. Profile the water line and resolve any conflict. Show all the crossings in the profile.
37. Provide a water and sewer material quantities list.
38. Provide a benchmark for the project.
39. Add the following note: "Electronic markers (ball type) shall be installed on all water mains and sewer gravity mains in accordance with specification 2.2.05N and 4.2.02E of the 2014 DPU Design and Construction Standards."

Sheet C411&C412 (Utility Details):

40. Clarify which fixture is for the apartment and which fixture is for the retail in the Domestic Meter Sizing Form.
41. Utilize the previous ISO Fire Flow Form prior to the 2014 DPU Standards with the new ISO fire flow methodology (e.g., new exposure criteria).
42. Add details D-476, D-520, and D-740.

Sheet C600 (Storm Profiles & Computations):

43. Profile all the crossings and resolve any conflict.

Sheet L100 (Landscape Plan):

44. Show the proposed utilities in the landscaping plan. No tree should be planted in the easement. Provide more detail on the size of shrub.

General:

45. 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 and is being reviewed. If the Information Sheet is incomplete, we will send you comments for correction and resubmittal. If the Information Sheet is complete, an Agreement will be forwarded to the Owner for signature.
46. Complete the water and sewer design calculations in the Engineering Report.
47. Recalculate the residual pressure in system at total design peak flow.
48. The total connection fee based on 2 retails (5/8" meter virtual) and 8 apartments is \$100,820 (\$45,610+\$55,210). Connection fees are set by County Ordinance and subject to change. See table below for clarification.

Connection
Fee

Use	Water Fee	Sewer Fee
Retail (2)	9730	11770
Apartment (8)	35880	43440
Total	45610	55210

If you have any questions concerning the above noted comments or the plans, please contact me at 501-4601 or Carmel Duvern  501.7314.

Sincerely,



Bob Dao
Utilities Engineer

cc: Mr. Sam Tu, Sky 88 LLC

bc: Ralph Claytor
Carmel Duvern ; Megan Gallagher
Mike Kennedy, Planning

BQD/tt