

### COMMONWEALTH OF VIRGINIA

# County of Henrico

April 19, 2022

Greg Nelson, P.E. Timmons Group 1001 Boulders Parkway, Suite 300 Richmond, VA 23225

> RE: Hermitage Ace 8350 Hermitage High Blvd FILE NO: County; POD NO: 2022-00177

### Dear Mr. Nelson:

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 April 5, 2022.

DPU recommends approval of these plans by the Board of Supervisors.

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

#### General:

- 1. Agreements are not required for this County project.
- 2. Provide original signature and date on the engineer's seal.
- 3. The DPU Monitoring and Compliance Division is currently reviewing the NOI form information. Any comments requiring further action will be forwarded to you upon receipt by our office.
- 4. The landscape and lighting plans cannot be approved until final utility layout is approved.
- 5. Provide a water hydraulic model of the proposed water main to ensure there will be adequate flow and pressure at the last hydrant of the water main.

#### C500 (Utility Plan):

- 6. Our record indicates the existing 6" water pipe is Asbestos Cement (Transite). Clearly indicate the pipe material on the plan. Also add following note (or similar) in the plan [Caution:
  - Existing Water Main Labeled "AC" is Asbestos Cement (Transite) Pipe. The Contractor Shall Take All Necessary Precautions and Follow the State and Federal Requirements When Handling These Pipes Including When Cutting, Connecting, Removing, and Abandoning.]
- 7. Per DPU As-Built, we do not have records of the existing water valve shown north-east of the building that was indicated to isolate the system. Only water valves that can be used to isolate the water main are located near the water meter (west of the water main) and Hungary Spring Rd. These valves will shut down almost all water on the campus during the installation of the tee and water valve.
- 8. Show and label the recorded existing utility easements for the water main with their deed book and page number.
- 9. Provide an additional water valve on the east side of the proposed tee.

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- 10. Provide a blow-up of the area of the water meter, water service and fire connections.
- 11. Label the distance of water main from the face of curb or back of curb.
- 12. The proposed 2" water meter is too close to the building. This meter needs to be a minimum of 8' from the building.
- 13. A high hazard back flow preventer will be required on the fire sprinkler system. Reference the size, detail number and the sheet location of the backflow preventer detail.
- 14. What will be in Hermitage Ace building? The type of use will determine the need of a domestic backflow preventer.
- 15. The proposed 2" water meter and the 6" boundary valve need to be installed with straight pipe without any bends from the water main.
- 16. The water meter, valve and their pipes need to be moved outs of the dumpster pad and/or any structure. The dumpster pad on top of water pipes will not be allowed.
- 17. Provide an additional valve for the fire line between the boundary valve and the fire line connection.
- 18. If possible, relocate the dedicated fire hydrant and Siamese connection south-west of current location (in the island). Connect this hydrant at the end of water main and it can be used as a flushing hydrant when needed.
- 19. Label the pipe size and material be 6" DI for fire hydrant leads.
- 20. Label the pipe size and material for the fire line.
- 21. Provide utility easements around public water main/utilities.
- 22. A 2" and 4" private sanitary sewer pipe is proposed with this project. DPU recommend use of 6" pipes on non-residential facilities.
- 23. Provide an internal angle of pipes at Manhole EX 1.
- 24. Provide a 0.1' invert drop between pipes in Manhole EX 1.
- 25. Reference the grease trap capacity and the detail on the plan sheet.
- 26. Provide four (4) northing/easting points.

### C510 (Utility Profiles):

- 27. The water main crossing the storm pipe need to be revised. Make necessary changes (adjusting both water and storm pipes or add water main vertical adjustment to install it under the storm pipe) to obtain at least 3.5' of cover over water main and at least 12" vertical separation between pipes.
- 28. Label the sanitary sewer pipes as "Private".

## C521 (Utility Notes and Details):

- 29. Replace the detail D-534 with D-535.
- 30. Provide the electronic marker detail (D-740) and any other details pertaining to the project.

### C522 (Utility Notes and Details):

- 31. Clearly indicate which building is Hermitage Ace (Annex Building) on the utility plan and what is done with this project.
- 32. Will Hermitage Ace (Annex Building) get all new fixture? If not, clearly indicate number of existing fixtures, removed fixtures, and added fixtures in 3 columns.
- 33. Fire Flow Estimate form:
  - a. Provide 1<sup>st</sup> and 2<sup>nd</sup> floor square footage.
  - b. What is 0.09 exposure and communication factor of? Since the existing school building is more 40 feet away (and/or sprinkled), this building will not be considered as exposure.

c. If this building has categories listed in C-3 type of occupancy, the Occupancy factor should be 1.0 (C-3). Some categories listed in C-3 are Auto repair training school, Photographic supplies, Bakery, Restaurant (cafeteria cooking), etc.

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

Sincerely,

John Yi

Utilities Engineer

cc: Adam Beifield, Henrico County Public Schools