



COMMONWEALTH OF VIRGINIA
COUNTY OF HENRICO

Department of Public Utilities
(804) 501-4517

INTER-OFFICE MEMORANDUM

TO: Mike Kennedy, Planning

FROM: John Clark, Public Utilities

SUBJECT: Cool Lane Apartments (Preliminary Plan SUB2021-00093)

DATE: March 23, 2021

We have reviewed a preliminary plan for the referenced project submitted to the Planning Office on March 5, 2021. The preliminary plan proposes the reuse of an existing 2-story building with basement into eighty-seven (87) apartment units. Our comments are intended to provide guidance for requirements for design and construction of the water and sewer service that will be provided by the County systems. Construction plans for water and sewer shall be designed in accordance with Henrico DPU Standards where applicable. The levels of detail provided in the following comments are based on the amount of detail provided on the plans.

General:

1. The City of Richmond DPU bills for domestic water and sewer service to this facility. Domestic water is supplied from the City main thru a metered service connection. Sewer is discharged into Henrico County sewer which, after a short distance (one run of sewer), enters the City sewer collection system. The County provides water for fire protection from its mains within Cool Lane and onsite. Therefore, utility plans and approvals must be coordinated with both jurisdictions accordingly.
2. Since the County owns and maintains the waterline that provides fire protection for this facility, the following must be confirmed:
 - ISO fire flow calculations for necessary fire flow must be correctly determined and shown on the plan. A maximum 50% credit in flow reduction will be allowed for a fully sprinklered building.
 - Sufficient hydrants shall be provided for the calculated necessary fire flow (NFF) and shall be located to meet maximum hose lay requirements (350') and minimum setback requirements (50' from building) in accordance with DPU Standards. It appears that hose lay and setback requirements are currently met with the existing hydrants.

- The City of Richmond fire hydrant at the southwest front corner can be considered, but the engineer must obtain the documented available flow at this hydrant from the City DPU and show on the plans.
 - The existing fire line must be adequately protected by an acceptable backflow preventor and have a working detector meter.
3. Include with the utility and construction plan submittal the following documentation for now as no utility construction has been proposed:
- DPU Engineering Report (form F-1) with Project Checklist.
 - Water System Flow Request (form F-7).

C3.2 (Site Utility Plan):

4. Given that the facility is being rezoned for a change of use, the fire line backflow prevention and detector meter system must be brought up to current DPU and state standards. Therefore, abandon and remove the existing detector check assembly and vault and install a reduced pressure detector assembly in accordance with either DPU D-430(external above ground) or D-435(inside building).
5. Label the water meter(s) thru which this building is served by City of Richmond. In addition, label the private 6" DI water service as such.
6. Label the existing 6" detector check. There should also be a 5/8" flow detector bypass meter per DPU records. Also, DPU records do not show a 1 1/2" meter within the detector check vault. Please review and verify. Water service is provided by the City as previously stated.
7. Show location of the fire department connection (FDC) and label the dedicated fire hydrant. The FDC should be on the same side of the road and within 50 feet of the dedicated fire hydrant.
8. Label the size and material of the existing sewer main and sanitary lateral serving this facility. DPU records show that there is only one sewer main within Cool Lane and it is a 12" precast concrete sewer main that was installed in 1961. The other parallel sewer that is 21" RCP should be correctly labeled as storm sewer. The size and material of the sanitary lateral are unknown at this time, but a determination can most likely be made thru visual inspection by accessing the manhole.
9. Label the Access Panel as a "City Meter". It measures water usage by Henrico County.
10. Label the existing hydrant near southwest front corner as a City fire hydrant.
11. Label recorded deed book and page number for Henrico County onsite water utility easements. If these were not recorded, easement plats shall be submitted to the County for review and recordation with this project.
12. Correctly label all previously mentioned utility information that is shown on the other plan sheets as well.

C3.3 (Utility Calculations):

13. The fire flow calculations spreadsheet currently shown is the IFC method and is not the ISO method that Henrico County DPU uses. Please use the attached DPU ISO method form and include on the plans in lieu of what is currently shown. In addition, note the following:
 - The construction type is listed as non-combustible (all metal), but the building construction data sheets on record with the county show that wood materials were originally included in the installation. The current exterior is brick but may be just a veneer. Please review and confirm.
 - Basement area does not need to be included in which there is limited combustibles(C-2) occupancy.
 - The professional engineer must sign the form.
14. Henrico County hydrant flow test information can be removed since Henrico DPU uses an overall system model to provide available fire flow at this location.
15. Eliminate the Henrico DPU meter sizing form F-8 since City of Richmond provides water service for this facility. The City will determine if the size of the existing water meters is adequate or not.

If you have any questions, please call me at 501-4501 or Ireini Botros at 501-4512.

John L. Clark
John L. Clark, PE
Utilities Engineer

Enclosure

cc: Claire Shirley, PE, Gradient
Julie Anderson, Virginia Supportive

bc: Alvin Christian
Ralph Claytor
Ireini Botros
Megan Gallagher

JLC/tt