

CHAPTER 6 FACILITIES: CIVIL

WATER

Existing Conditions

The City of Salisbury provides the water to Salisbury University. Water is currently being supplied by two 8" mains, which come together to form a loop from which water lines equal or smaller in size branch off connecting the University. The first 8" line comes from Dogwood Drive, passing in between the Maintenance/ Physical Plant Building and the Allenwood Shopping Complex. The second 8" line comes from Camden Avenue and heads up through the University passing directly behind Nanticoke Hall. The two meet on the east side of the Magg's Gym, thus forming the loop. The loop does not supply every building. Camden Avenue has a direct 8" line running to the Common's Building, along with a 4" line servicing Holloway and Severn Halls and Dogwood Village. Water supplied to Chesapeake and St. Martin's Halls comes from an 8" line crossing West College Avenue.

The age of the water lines is a growing concern for the University, and water pressure has always been an issue. The University is on the southern end of the City's water supply system. The current facilities are sufficient to provide service to the campus. However, the low pressure from the City's water mains is an issue.

Deficiencies

Two notable water system deficiencies are age and pressure. The pressure, a mean of 35psi, is at the low end of the acceptable range. Typically water pressure should test around 60psi. The lack of pressure is not a new issue with Salisbury University, but the campus has to rely on the City to improve its current system in order to resolve it. The age of the lines is also a concern; some of the lines still in use are iron pipes approximately 50 years old. These water mains are nearing the end of their designed life cycle. As a result, water main breaks are more likely to occur. Another age related issue is sedimentation within the pipes, which leads to poor water quality and lower pressure.

Recommended Upgrades

As stated above the water mains within the campus are currently looped. Any future development should continue with this practice. Looping allows for more consistent pressure and the ability to repair water main breaks without disrupting the entire campus.

Currently the staff does not have access to a sufficient number of valves to isolate portions of the campus. Valves have been buried during construction or do not exist. We recommend that the University locate and map the existing valves and install a valve between the Maintenance/ Physical Plant building and the Allenwood Shopping Center. The water lines connecting the smaller properties to the City's water supply along Camden Avenue should be replaced.

SANITARY SEWER

Existing Conditions

The City of Salisbury provides the sanitary sewer service to Salisbury University. The sanitary sewer service provided to the campus comes from 8" lines entering the campus from all four sides. Two 8" lines enter the campus from Camden Avenue, passing along the both sides of Nanticoke Hall heading into the center of the University then branching out to service the buildings within. A 4" line services Dogwood Village from Camden Avenue. Two 8" lines enter the campus from West College Avenue, one near U.S. Route 13 going to Chesapeake and St. Martin's Halls; with the other entering in front of Holloway Hall. A 4" line enters the site from Dogwood Drive servicing only the Maintenance/ Physical Plant Building; and another 8" line directly south, servicing the University Center and Common's Building. An 8" line entering the campus from US Route 13 services Magg's Gym.

The current gravity piping system seems to be working sufficiently. The campus maintenance crew currently flushes the pipes twice a year, and services troubled spots more frequently. The pipes are approximately 50 years old and appear to be functioning properly.

Deficiencies

The only deficiency noted was root growth. Roots grow into existing pipes through pipe joints, thus prohibiting flow.

Currently the maintenance crew cuts the roots on an as needed basis.

Recommended Upgrades

As stated above, roots are the major issue with maintaining pipe flow. The most noticeable location is the 8" line from Holloway Hall to Fulton Hall. The University should investigate either replacing the line with a new PVC pipe or lining the pipe to reduce root growth. Manhole access points have been buried due to development; they should be located and mapped to provide access during the biannual maintenance. All future growth of the University shall take in account the current system, and base the future development upon the needs assessment for expansion with regards to size and current usage of the system. The maintenance crews should continue servicing the sanitary sewer system twice a year.

STORM WATER DRAINAGE

Existing Conditions

Currently the University's storm drain system seems to be working properly. A 60" line handles the bulk of the storm water directing it from the University past the Maintenance/ Physical Plant Building to Dogwood Drive. A 12" line extends past Holloway Hall to West College Avenue. A 33" line carries some of the runoff water by Severn Hall to Camden Avenue. The pipes are approximately 50 years old and appear to be functioning properly.

Deficiencies

The only deficiency noted was root growth. Roots grow into existing pipes through pipe joints, thus prohibiting flow. Currently the maintenance crew cuts the roots on an as needed basis.

Recommended Upgrades

New additions to the University will require storm water management. The extent will be determined by looking at each new individual improvement.

We recommend that the sediment retention pit, in front of the Maintenance/ Physical Plant Building receive regular maintenance and the storm drain pipe running in between Chesapeake and St. Martin's Halls be replaced due to root growth.