



Market
DOT

Challenge

Construction on a subdivision began over a decade ago, but due to financial restraints, the project was put on pause until recently. As a result, RCP stormwater pipes had been installed but never put into use. Now these pipes needed to be brought up to code, ensuring they would function properly. Replacement would be exorbitant and the pipes were structurally sound so a trenchless repair was preferable. The solution would need to be installed without affecting the other construction projects.

Engineered Solution

Standard-wide HydraTite internal pipe joint seals were selected for installation in the man-entry-sized stormwater pipes, and HydraLock seals were chosen for the 18" pipe.

Scope

Six joints were marked for repair in the 18" pipe. Four of the joints had separation and two of them had exposed gaskets and minor concrete damage. Atlantic Pipe Services used a mechanical packer to carry in the HydraLock seals and expand them. As they were expanded the seal's locking mechanism secured them in place. The 18" pipe was rehabilitated in a single day.



31 defective joints were scattered in man-entry-sized pipes under the subdivision. The pipes were in a roughly square mile range with the following diameters: 24", 30", and 36". HydraTech Field Services' small crew and limited tools allowed us to work around the other construction. Some roots had invaded the pipe through the joints and these had to be removed. The road was in the process of being paved and the portions that were not paved allowed mud to be washed into the pipes during rain. The pipes were cleared for our crew again and the process continued until 15 of the 24", four of the 30", and 12 of the 36" seals were all locked in place. The installation was stop-and-go due to weather and working around other construction, but the HydraTite seals were put in place in about 6 nonsequential working days.

Solution

The HydraLock and HydraTite seals prepared these pipes to serve the subdivision above. Atlantic Pipe Services and our Field Services crew restored these defective joints quickly. HydraTite was installed without disturbing other construction projects and These trenchless repairs were more cost-effective than replacement.



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