



Delivering innovative trenchless technology solutions to rehabilitate the world's diverse infrastructure

► **INFRASTRUCTURE RENEWAL: CIPP SEWER REPAIR**

Project:

UV-Cured in Place Pipe Sewer Repair

Location:

Dover, DE

Profile:

The city of Dover, DE has a proactive infrastructure preventive maintenance plan in place to maintain its 185 miles of sewer lines and 30 miles of force mains. During a routine inspection it was discovered that a sewer line running under a state highway was in need of rehab and repair.

The City of Dover chose Lanzo Trenchless Technologies to install nearly 5000 feet of UV-cured CIPP to the trunk transmission and collection sewers under a 12-block stretch of one of the city's main arteries. The technology, called Multiliner, is a pull-in fiber glass liner impregnated with a polyester resin. The UV-cured liners are actually made to order and then impregnated with a resin and a photo initiator chemical prior to being shipped to the jobsite.

For installation, Lanzo Trenchless Technologies pulled the liner into place using a Kevlar string. Once the liner was in place, a clear polyethylene bladder was inflated with air to conform it to the pipe interior. A UV light instrument was sent through the pipe to cure the resin. Lanzo crews directed the entire process through a camera attached to the UV light instrument to assure the curing was complete and that the lining remained flawless during the entire process.

Road closures, temporary sewer bypasses and sunny outdoor days with heat indexes of up to 110 made the project more challenging. The UV-cured liner systems have a greater tolerance for temperatures than their steam-cured resin alternatives, but they still must be kept cool and out of the direct sunlight during the installation process. Lanzo kept the liner tubes at 60 degrees in a refrigerated trailer inside a warehouse until they were ready to use. Lanzo Trenchless Technologies completed the project on time and under budget.

