

# GEOSPRAY®

## Geopolymer Mortar



WATER / WASTEWATER

### PROJECT OVERVIEW

As part of a demonstration and research project sponsored by the US Army Engineer Research and Development Center located in Champaign, IL, the US Army Corp of Engineers (USACE), in conjunction with Fort Bragg's Directorate of Public Works, completed the rehabilitation of a CMP culvert at the Simmons Army Airfield. The research and development center was looking to validate newer large diameter pipe rehabilitation solutions and chose Milliken's GeoSpray geopolymer mortar as a product it was interested in evaluating for its infrastructure needs.

### SOLUTION

Inland Pipe Rehab was selected as the contractor for the project. The design thickness specified by USACE was two inches of GeoSpray geopolymer mortar as the repair lining. The application was performed with temperatures in the 40 °F range and was applied in three application passes.

### RESULTS

The demonstration project was funded by the Office of the Secretary of Defense Corrosion Prevention and Control Program. The USACE determined that this process of culvert relining with geopolymer mortar can be an effective alternative to other trenchless technologies, especially when the pipe diameter is 54 inches or larger.

The project engineers further recommended the system in a subsequent Public Works Digest article that stated, "This is a process that should be seriously considered by all Army organizations when planning to repair or rehabilitate deteriorated storm culverts and storm or sanitary pipes. In particular, this is a very useful process to use when structures are located beneath roadways, since digging up the road is avoided."

### CASE STUDY:

## Ft. Bragg, NC CMP Culvert Rehabilitation

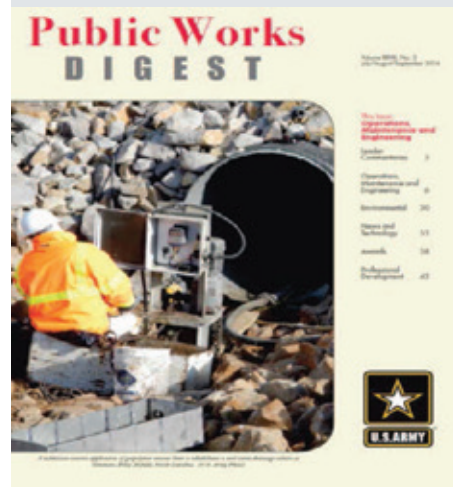
### PROJECT DETAILS

**Client:** US Army Corps of Engineers

**Location:** Simmons Army Airfield, Ft. Bragg, NC

**Installation:** December 2014

**Installer:** Inland Pipe Rehab, LLC



The project was featured in Public Works Digest.



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+1.855.655.6750



Existing outlet of culvert.



Corroded culvert prior to rehab.



Pressure washing loose material from culvert.



Completing first GeoSpray lining pass.



Completed GeoSpray geopolymer lining.

