



Project Spotlight

NC72 Bridge, Fayetteville, NC



Owner: North Carolina DOT
Installer: UMA, Geotechnical Construction, Inc.

Background Information

With more than 12,000 bridges across the state of North Carolina, the state's Department of Transportation (NCDOT) has its hands full maintaining these structures and making sure that its residents and visitors have safe passage to their destinations. When the flood waters from Hurricane Matthew washed out a NC-72 bridge outside of Fayetteville, NCDOT needed a quick solution that would ensure long-term stability in extreme weather.



Project Details



The soil underneath the NC-72 bridge washed out, leaving a void of 900 cubic feet that had to be filled with a material that would prevent future soil washouts, while also providing high compressive strength and stability. The team from UMA, Geotechnical Construction, Inc. chose to use Aerix's AERLITE™ non-permeable low-density cellular concrete (LDCC) as the fill material underneath the bridge.

The three-person installation crew from UMA, Geotechnical Construction, Inc. completed the AERLITE™ installation in just three hours, using ready-mix trucks to hold the concrete slurry and then adding the AERLITE to complete the cellular concrete mix. The void underneath the bridge approach was completely filled and stabilized with only 35 cubic yards of low-density cellular concrete.

Aerix Added Value

The use of Aerix's AERLITE provided an ideal solution for this bridge approach that had been severely affected by the elements. Because it is extremely lightweight yet has incredibly high compressive strength, AERLITE provided NCDOT with the peace of mind knowing that it would not only return the bridge to its full functionality but would also eliminate the potential for future soil settlement or wash-out. With AERLITE, this North Carolina bridge will provide safe travel for commuters and visitors for years to come.

