

Project Spotlight

FL DOT US17 Bridge Void Fill - Clay Co, Florida



Owner: FL DOT Engineer: Environmental & Geotechnical Specialist, Inc. Installer/General Contractor: Foundation Professionals of Florida

Background Information

In 1967, the Florida Department of Transportation (FDOT) constructed the US Highway 17 bridge to enable traffic to pass over a body of water named the Johnson Slough. This road not only allowed safe passage over the body of water, but it also facilitated travel into the city of Jacksonville from the southern parts of the state. Recently, FDOT was faced with a challenge when the embankment soil surrounding this bridge began to erode. The state needed to fill this void as quickly as possible to maintain the structural integrity of this essential roadway and reduce the potential for future soil settlement.



Project Details

This rehabilitation project required a unique fill material that would be strong enough to support the roadway yet light enough to reduce the potential for soil settlement. In addition, the limited accessibility of the project made

the use of traditional backfill difficult. These considerations led the team to choose AERLITE-iX™ low-density cellular concrete (LDCC) manufactured by Aerix Industries™.



The installation crew at Foundation Professionals of Florida installed 760 cubic yards of AERLITE-iX LDCC to fill the void. They pumped the LDCC through four-inch holes in the roadway surface. Due to its extreme flexibility, the use of LDCC significantly reduced the number of injection points required on the roadway surface.





Aerix Added Value

AERLITE-iX LDCC proved an ideal solution for this project, providing the necessary structural support, minimizing the potential for future soil

settlement, and significantly reducing material and labor costs when compared to other traditional backfill materials. With the use of AERLITE-iX, the US-17 bridge will continue to carry traffic over the Johnson Slough for decades to come.