Project Spotlight

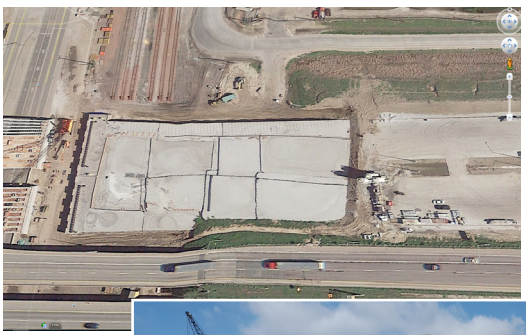
I-29/I80 Interchange - Council Bluffs, Iowa

Owner: Iowa DOT
Installer: MixOnSite
Engineer: Iowa DOT
General Contractor: Linhart Construction

Background Information

Since its construction, the interchange between I-29 and I-80 in Council Bluffs, Iowa, has been hazardous for drivers. One of the primary issues has been that traffic from I-80 merges onto I-29 from the left without much warning, causing numerous collisions. Additionally, the roadway was originally built to accommodate only 32,500 vehicles and by 2014 was carrying 75,500 vehicles per day, a number expected to climb as the Council Bluffs area continued to develop.

In response to these issues, in the early 2000s, the Iowa Department of Transportation (DOT) began a decade-long reconstruction of the Council Bluffs interchange system; one of the major components of this project was the construction of a new I-29/I-80 interchange.



Project Details

The reconstruction of this two-bridge interchange, which was more than half a century old, involved a significant amount of soft soil remediation underneath the bridge abutments and the approaching interstates. Requiring a material with high compressive strength and light weight, the Iowa DOT chose to use a non-permeable, low-density cellular concrete (LDCC) with an ad-mixture manufactured by Aerix Industries for this application.

National contractor MixOnSite installed a total of 113,900 cubic yards of Aerix's 32-pcf AERLITE-iX™ LDCC at a rate over 1,500 cubic yards per day, placing the LDCC as a subbase underneath the bridge abutments and approaching roadways.

Aerix Added Value

Soft soil remediation is a vital element to interstate and bridge construction, as it eliminates the potential for soil settlement and provides long-term stability for the roadways. The use of AERLITE-iX LDCC provided this much-needed stability. With AERLITE-iX, vehicles traveling through Council Bluffs will be able to travel with safety and efficiency on an interchange that now meets roadway standards and has more than enough capacity to carry the area's increasing traffic.