



Project Overview

STIFPIPE REPAIR OF 24" CORRUGATED METAL PIPE CULVERT

Name: 24" Corrugated Metal Pipe (Culvert)
Type: Pipe Repair
Location: Mobile, AL
Completed: November 2012

PROBLEM

This 24" corrugated metal pipe (CMP) culvert ran under a main roadway just outside downtown Mobile, Alabama. The internal lining of the pipe had deteriorated so much it was virtually nonexistent. The pipe itself was also suffering from major rust and corrosion.

Given the severity of the damage, Alabama DOT considered demolition and replacement of the entire pipe which would have cost much more and taken a lot more time.

SOLUTION

QuakeWrap® StifPipe was selected since it allowed for the repair of the pipe without replacing the whole pipe itself.

Access constraint to the culvert from the ends was limited so it was decided to use StifPipe™ sections that were only 8-ft long. Pipes and couplings were made in Tucson and shipped to the job site.

Once the pipe was cleaned and the previous liner completely removed, eight 8-ft long X 18-inch ID pieces of StifPipe were pieced together with couplings and slid easily down the pipe. The lightweight StifPipe™ did not require any equipment and was pushed by hand. A grout was then pumped in to fill the annular space between the StifPipe™ and the host pipe. This whole process took 1 day to complete, and water was able to begin flowing freely once the grout had cured.



Technical Highlights

- StifPipe™ light weight allowed for the pipe to be easily pushed in just by manpower.
- Installation was completed while the roadway remained in operation.
- The StifPipe™ was made with two layers of QuakeWrap® VB26 fabric internally and externally, surrounding a honeycomb core.

Credits

John Murphy: Murphy Consulting Group
General Contractor: Hosea O. Weaver & Sons Inc., Mobile, AL



"The FRP Retrofit Experts"