



Market

Water & Utilities

Challenge

The challenge was to find an economical and efficient solution to eliminate joint infiltration and prevent potential sink holes in a 72" storm culvert located under Interstate 90 in New Buffalo, Michigan. This was an urgent and high priority project, as MDOT engineers were concerned of a potential interstate collapse that could be caused from the below culvert. Joints had previously been injected with chemical grout, but this repair was not effective as water was still infiltrating through the pipe.

Engineered Solution

To eliminate infiltration and prevent an interstate collapse, the HydraTite internal joint seal was proposed as a solution. The HydraTite was approved by the Michigan Department of Transportation for this project. HydraTite Seals of different widths were utilized throughout the pipe to accommodate the particular condition at each joint.

Scope

This project consisted of installing (114) 72" HydraTite internal joint seals at all joints within the culvert under Interstate 90. The project also involved cleaning and removal of grout ports for prep work. The crew and all materials entered through the open ends with no disruption to the traffic as the seals were installed. Installation was accomplished in approximately three weeks during the summer of 2017.

Solution

This trenchless repair was performed at a fraction of the price and inconvenience of full replacement. The finished product will prevent any further joint infiltration that would result in immense damage to the above interstate.



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