



INTERNAL PIPE HydraTite® JOINT SEAL

Market
DOT

Challenge

A 67" by 105" elliptical pipe under a roadway began raising concerns when separation was discovered at nine of the joints. Sediment had entered the pipe through the compromised joints, and action was needed to protect the road above from the eventual formation of sinkholes. A trenchless option was necessary so the road above would not be disrupted by the repair.

Engineered Solution

HydraTite Internal Pipe Joint Seals were custom-manufactured to fit this pipe. Most installations similar to this require four-piece retaining bands, but two-piece bands were requested for this application.

Scope

Debris was cleared away, and rubber seals were positioned over the joints. Next, the stainless-steel retaining bands were positioned in the rubber's designated channels. Initially, the two-piece bands did not allow for enough expansion, and the retaining bands had to have extensions welded on. This allowed for greater expansion and the bands were then able to apply the appropriate amount of pressure to the rubber. In total, 2 extra-wide and 7 standard-wide seals were installed.

Solution

Despite the needed onsite alteration to the bands, this installation was faster and more cost-effective compared to dig and replace methods. These seals will guard these joints against infiltration much longer than grout and in doing so will help prevent the formation of sinkholes.



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