

Snap-Tite® Pipe Relines Damaged Culvert Under Entrance to Texas DOT Maintenance Yard

Stanton, TX

The Problem

An arched (32 by 24-inch diameter) corrugated metal pipe (CMP) culvert located under the entrance leading into the Stanton Texas Department of Transportation (TXDOT) maintenance office in Martin County was past its design life and starting to fail. This was the only entrance into the Stanton DOT yard, so digging and replacing the culvert was not an option.

The Solution

Snap-Tite® representative Trevor Cone worked with the TXDOT Odessa District to determine the best solution to repair the culvert without disrupting traffic flow on the road leading to the maintenance office. Cone suggested the use of 20-inch high-density polyethylene (HDPE) Snap-Tite® pipe liner to reline the culvert, thus eliminating any need to dig up the road.



DOT maintenance crew snaps the culvert liner pipe together with come-alongs and chains.

The no-dig HDPE Snap-Tite® culvert-lining pipe, which has a patented male/female machining at each end of the HDPE, is 'snapped' together, piece-by-piece, and pushed into the full length of an existing pipe. Any annular space and voids between the old culvert and new liner are filled in with grout.

The pipe liner is available in lengths from two feet to 50 feet, and is available for culverts with diameters from eight inches to 84 inches. Snap-Tite® also meets American Association of State Highway and Transportation Officials (AASHTO) Standard M326 for rehabilitating culverts.

The Installation

The Installation also served as a demonstration for local DOT maintenance personnel and engineers. Approximately 30 people attended the demo.



Pipe liner going in where old CMP has completely deteriorated.

All the equipment that was required to snap the pipe liner pieces together were come-alongs and chains. Once the Snap-Tite® pipe liner lengths were snapped together, the crew pushed the joined liner through the old CMP culvert and then filled in any annular space with grout.

“We found the Snap-Tite® installation procedure easy to pick up for first-timers,” said Zane Honeyfield, TXDOT maintenance supervisor in Stanton. “After being shown only two connections, my crew dove in and was able to finish out the rest with minimal supervision. Other section supervisors and crew leaders that were present, as well as myself, got to see the potential uses and benefits of the Snap-Tite® product and hope to get to use it in the future.”

The pipe lining of the old culvert began at 9:30 a.m. and was completed in one day. The grouting process took place the following day. The TXDOT maintenance crew was able to do the work themselves without having to hire contractors, saving the Odessa District time and money. The entire installation was a success.



The last section of Snap-Tite® pipe liner is pushed in through the length of the old deteriorated pipe after it is snapped together with one already partially inside the old pipe.

About Snap-Tite®

- Meets AASHTO Standard M326 for rehabilitating culverts.
- Offers flexibility for insertion into misaligned concrete or rusted deteriorated corrugated metal pipe.
- Offers a safe method for installers and doesn't require traffic control.
- Tough but lightweight, the Snap-Tite joint makes a solid water-tight mechanical connection that can be pushed or pulled.

Due to the Snap-Tite® system's installation flexibility and cost-effectiveness, it continues to provide successful results for many projects throughout the U.S. and internationally.

For more information on Snap-Tite® please visit www.culvert-rehab.com.



The new Snap-Tite® pipe liner installed and grouted.

SnapTite®

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