

Snap-Tite® Is a Perfect Fit for Appalachian Culvert Rehab

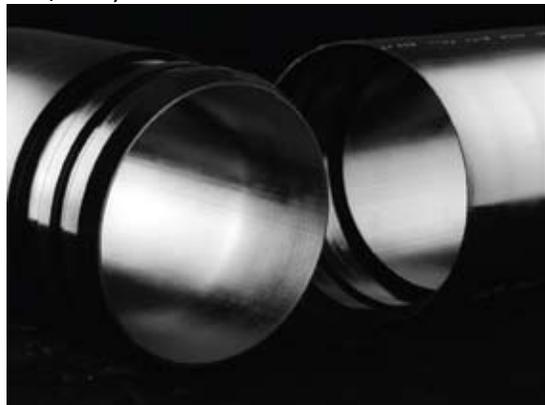
MEETS
AASHTO
STANDARD
• **M326** •

Shenandoah National Park in Shenandoah, VA, and the Federal Highway Administration (FHWA) recently completed a culvert rehabilitation project using Snap-Tite®. The scope of the rehabilitation project included 56 decaying corrugated metal culverts with inside diameters ranging from 18-inches to 36-inches.

Slip-lining to rehabilitate lines is a classic application of high-density polyethylene (HDPE) Snap-Tite piping and its patented HDPE pipe joining system. This project was unusual because traversing the Appalachian Mountains required installing pipe on slopes as steep as 60 degrees. Such limited working areas further heightened the advantages of the Snap-Tite system.

Although the job initially specified cured-in-place technology to reline the pipe with synthetic material, contractor JSI Paving & Construction of Springfield, VA, was given a chance to bid the project using Snap-Tite. JSI won the award and set to work on the three-county project.

The Park's objective was to rehabilitate these culverts without damage to the environment and to save money. According to the cost study conducted by Shenandoah National Park and JSI, using Snap-Tite will result in a cost saving of \$200,000.



Snap-Tite's unique joining system.

"This is an ideal solution for the Park system," says Jeff Stack, co-owner of JSI. "The customer is getting all the advantages of Snap-Tite – a better, stronger, longer-lasting pipe – in a cost-effective package."

Rehabilitation of 4,800 linear feet of pipeline was completed on time. Ten-foot sections of Snap-Tite were supplied in order to ease installation and to preserve the surrounding existing trees and underbrush.

Since there was no need for special equipment to join the pipe, JSI was able to line the culverts successfully with minimal disturbance to their surroundings.

In addition to ease of installation and the watertight performance of the joints, the physical characteristics of the pipe offer many advantages:

- Snap-Tite is made from HDPE solid wall pipe, a lightweight, flexible material. HDPE weighs 70 to 90 percent less than concrete, cast-iron, or steel pipe of the same dimension, which facilitates material handling on the job site.
- Snap-Tite demonstrates outstanding resistance to chemicals and corrosion. In addition, it is extremely durable and resistant to abrasion.

Snap-Tite's Long List of Advantages

Ease of installation is one key to Snap-Tite's many advantages over culvert replacements. In fact, several studies have shown that the largest expense item with culvert repair projects is not the pipe itself but the installation, maintenance, road repair, and liability costs.

The Snap-Tite system saves on labor costs by eliminating the time-consuming process of cutting and repairing roads. There's no need for

specialized equipment or special training, so costly equipment rentals and additional labor also are eliminated.

Once the old culvert is flushed and inspected to ensure that a liner pipe can be inserted without any obstructions, a four-person crew can easily rehabilitate a single 80-foot culvert using only shovels, a backhoe, and come-a-long chains.

Precision machining of the joint component on the ends of the PE 3408 HDPE pipe creates a system of grooves. Out in the field, the pipe sections are properly aligned and "locked" in place to create watertight seals.

The Snap-Tite Solution

- Meets AASHTO Standard M-326 for rehabilitating culverts.
- Flexibility to insert into misaligned concrete or rusted partially collapsed corrugated metal pipe.

- Tough, but thin, sidewall to give the highest flows possible after lining. The Snap-Tite joint makes a solid mechanical connection that can be pushed or pulled.

Generally, as with any engineered system, time and usage are needed to generate acceptance. We are pleased to say that Snap-Tite has experienced a growth of envious proportions. We attribute this to consistently successful results and the overall flexibility of the Snap-Tite system.

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



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