



INTERNAL PIPE

# HydraTite®

JOINT SEAL

## Market

DOT

## Challenge

During an inspection, Ohio Department of Transportation (ODOT) District 1 identified excessive joint separation within a 36-inch reinforced concrete pipe (RCP) beneath a roadway. One joint had also become offset, increasing the potential for infiltration and continued deterioration if left unaddressed.

Although the pipe remained generally round, minor dimensional variations resulting from manufacturing tolerances and/or years of service meant it no longer measured perfectly in every direction. These slight irregularities are common in aging concrete pipe and require a sealing solution capable of conforming to the pipe's actual geometry while restoring a watertight joint.

## Engineered Solution

HydraTech recommended the HydraTite® Internal Pipe Joint Seal system to rehabilitate the separated joints without excavation. The system's flexible EPDM rubber sleeve naturally conforms to minor variations in pipe diameter and shape, allowing it to maintain uniform contact even when concrete pipe has experienced slight deformation over time.

Three HydraTite® seals were selected to restore the affected joints while eliminating the need for roadway excavation, traffic control, or replacement of the existing pipe.

## Scope

Upon arrival, HydraTech's two-person field crew found the pipeline to be in excellent condition for installation, requiring virtually no surface preparation before work could begin.



The crew installed three HydraTite® Internal Pipe Joint Seals in the 36-inch reinforced concrete pipe, successfully rehabilitating the separated and offset joints. The entire installation was completed in approximately one and a half hours, demonstrating the speed and efficiency of trenchless internal pipe joint sealing. Throughout the repair, traffic continued uninterrupted above the pipeline, and no excavation or surface restoration was required.

### Solution

All three joints were successfully rehabilitated, restoring the integrity of the pipeline and eliminating the concern created by the separated and offset joints. The project was completed with a two-person crew, minimal equipment, and virtually no surface preparation, allowing ODOT to quickly protect the pipeline without disrupting the traveling public.

This project demonstrates how the HydraTite® Internal Pipe Joint Seal system can rapidly rehabilitate aging concrete infrastructure by adapting to the natural dimensional variations commonly found in existing pipelines, providing a long-term trenchless repair with minimal impact to the surrounding environment.



**HydraTech** Engineered Products, LLC  
**HydraTech** Field Services, LLC  
10448 Chester Road, Cincinnati, Ohio 45215  
Phone: (513) 827-9169 Fax: (513) 827-9171  
<http://www.hydratechllc.com>

