



North American Society for Trenchless Technology  
2007 No-Dig Conference & Exhibition



San Diego, California  
April 15-20, 2007

Paper E-1-01

## **A FIRST IN THE UNITED STATES: STRUCTURAL CIPP WATER MAIN REHABILITATION IN THE CITY OF NAPERVILLE, IL.**

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**ABSTRACT:** The City of Naperville, like most other cities in North America is faced with deteriorating water mains which regularly cause water main breaks and in consequence result in service stoppages for its user clients. The City's vast experience with sewer main rehabilitation using trenchless technologies, the cost of replacement of water pipes and the social costs associated with conventional replacement methods have motivated the City to try new and innovative technologies for the structural renewal of their water mains.

Over the last decade, the cured-in-place pipe (CIPP) technique has evolved to the point where water main structural rehabilitation has now become economically and technically feasible on a larger scale. In the past 5 years over 80 miles of structural CIPP liners have been installed in distribution water mains in the provinces of Quebec and Ontario. The NSF/ANSI 61 certification obtained in 2005 has now made the technology available to the rest of North America.

This paper will present the City of Naperville case study of the Briergate Drive water main rehabilitation project, a first in the United States. It will explain the reasons why the City chose to rehabilitate the water main using a structural CIPP liner, the trenchless method for service connection reinstatement, and indicate the technical and economical advantages it provides to the city.