

Region of Peel Rejects Steel Pressure Pipe from Future Contracts

Peel Regional Council revisited the issue of allowing steel pressure pipe at its April 5, 2018 meeting. The meeting included delegations from Technicore Underground Inc., DECAST, the Canadian Concrete Pipe and Precast Association, Forterra Pressure Pipe, the Centre for Advancement of Trenchless Technology, and Northwest Pipe Company.



Concrete Pressure Pipe Stored by an Ontario Manufacturer

A comparative study was presented to the Council by R.V. Anderson Associates Limited, who had been retained by the Region of Peel in response to Council

direction in October 2017. The directive was to report back with additional analysis on failure rates and a comparison of lifespan, and additional information regarding the environmental impact of Concrete Pressure Pipe (CPP) and Steel Pipe (SP) for large diameter water transmission mains.

The study considered the following for both CPP and SP:

- Environmental Impacts
- Failure Rates
- Lifespan
- Pressure ranges and transient pressure changes
- External Loading
- Corrosion
- Condition assessment and rehabilitation technologies

Mark Knight, Associate Professor, Department of Civil Engineering, University of Waterloo and Executive Director, Centre for Advancement of Trenchless Technology, advised that Regional Council should be very conservative and use a low risk approach with high consequence pipelines.

Professor Knight listed the following four considerations, in order of priority when assessing pipes for performance and risk:

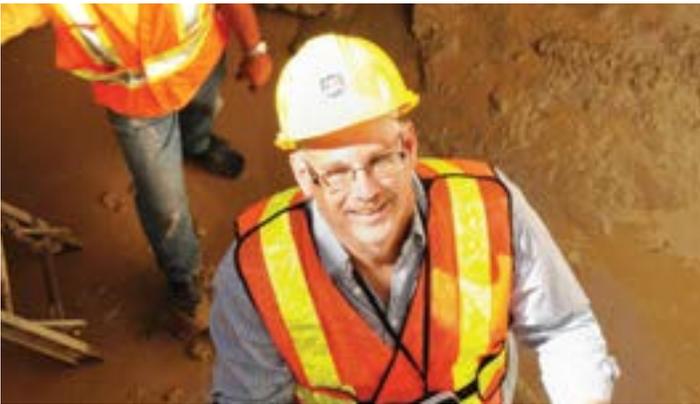
1. Pipeline performance
2. Economics - construction and maintenance costs
3. Social costs - failure costs, local jobs, business losses
4. Environmental costs - greenhouse gases, noise, pollution

In response to a question from Councillor Sprovieri, Professor Knight stated that steel pipe may be appropriate based on local areas however it has higher failure rates than concrete pressure pipe.

The Centre for Advancement of Trenchless Technologies (CATT) was established in 1994 to help municipalities address their buried infrastructure challenges with specific reference to trenchless technologies.

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CATT is located at the University of Waterloo in Waterloo, Ontario. Geographically, the Centre is positioned to serve Canada and the northern United States. During the last 10 years, CATT has achieved significant recognition as an international leader in trenchless technology education and research.



*Dr. Mark Knight, P.Eng., Executive Director -
Centre for Advancement of Trenchless Technologies (CATT)*

A salesman with an American steel pipe company was critical of Peel Council for the manner in which it has addressed the pressure pipe issues. He stated, “We’ve been discussing this for seven years in five minute

increments, it’s getting absurd.” Ward 6 Councillor Ron Starr took exception to these remarks and responded, “You further convinced me that the Region of Peel does have the right policies in place at this present time... I don’t like being chastised by someone trying to sell a product to us.”

A motion to include steel pipe was proposed, seconded and voted upon by the Region of Peel Council. The motion was defeated, thus Peel Region maintained the current specifications, with concrete pressure pipe for all large diameter water mains. Steel pipe will not be added to the regional specifications.

RISK = Probability of Failure *Consequences of Failure

Large diameter water mains are high risk pipelines, even with a low probability of failure. The CCPPA commends the Regional Municipality of Peel for exercising due diligence on such an important infrastructure matter.