

The Digital Pipe Digest



Canadian Concrete Pipe Association
Association Canadienne Des Fabricants De Tuyaux De Béton

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September 2000

Failed 401 Culvert Was Corrugated Steel Pipe

Toronto-bound motorists in the Milton area of Highway 401 faced a two-day highway snarl-up on August 9 caused by a sinkhole. Traffic was backed up for several kilometers.

A lane-wide sinkhole opened up during Tuesday's evening rush hour. Cars were funnelled into one lane as crews laboured through the night to repair the damage.

In addition to filling the hole, engineers had to make sure the westbound lanes also weren't at risk of collapsing.

The holes in the culvert were about the size of a bowling ball, and the resulting sinkhole in the centre lane was about 2.5 metres wide by 2 metres long with a depth of about 1.5 metres. The pavement collapsed when water washed away the fill underneath the highway. Maintenance crews with TWD Road Management discovered the two holes in the culvert drain pipe for storm water that runs underneath the roadway.

The 750-mm pipe had been installed in 1980 or 1981 as part of the program to construct concrete barriers on HWY. 401. The csp provides an outlet for the centre median drainage system.

Investigations found that the outlet for the pipe had been blocked and the water surcharged into the pipe. It is thought that the water exited the top of the pipe, washing out the granular road base.

The pavement in this area is a composite concrete base with asphalt riding surface.

The concrete base was not reinstated when the culvert catchbasin outlet was installed. Engineers filled the hole with concrete and then covered it with asphalt. Once the repairs were made, cold water was poured on the road for several hours by the Milton Fire Department to speed up the cooling time of the hot asphalt.

The MTO has now begun a program to inspect csp culverts installed in the same contracts. This includes video of the pipe.

Design products within Central Region of MTO will be impacted by this event.

The OCPA set up meetings with MTO officials to discuss the failure and measures that could be taken to avert such incidents in the future.

Photos of the culvert failure and roadworks are available from Centennial Concrete Pipe and the OCPA.

Information for this report was obtained from an article that appeared in the August 10 issue of The Toronto Star by Michael Friscolanti and Bob Mitchell, and a report by Paul Smeltzer of the OCPA, paul.smeltzer@ocpa.com

New Competitor Poised to Enter Pipe Market

With the approval of four new specifications published by ASTM Committee C17 on Fiber Reinforced Cement Products, cellulose fiber cement pipe appears ready to enter the US market. This product, very similar to asbestos cement pipe, but substituting wood fibers for the asbestos, can be manufactured in

diameters from 255 mm to 750 mm (8-30 inches). The pipe can be made on the same equipment used to manufacture asbestos cement pipes. It will be manufactured by James Hardie Building Products. Hardie has operating facilities for other products in Fontana, California, Cleburne, Texas and one planned in Florida. Cellulose fiber cement pipe was introduced into the Australian market several years ago. Hardie's publications refer to the pipe as "fiber reinforced concrete" (FRC) pipe. At least two DOTs have been contacted by Hardie representatives. A Hardie representative attended the August AASHTO Subcommittee on Materials meeting in Savannah, Georgia in an effort to have an AASHTO Materials standard approved for the product.

For more information, contact Patrick McGuire of the Concrete Pipe Association of Australasia at mguire@concpipe.asn.au, or Josh Beakley at jbeakley@concrete-pipe.org.

(Source: ACPA INFOFAX dated August 11, 2000)

Concrete Pipe Industry Billboard

2000 Super Conference and Trade Show

The Western Canada Water and Wastewater Association has joined with the Manitoba Chapter of the Canadian Public Works Association and the Prairie Chapter of the Solid Waste Association of North America to host the 52nd Annual Western Canada Water and Wastewater Conference at the Winnipeg Convention Centre, November 5 to 8, 2000.

ACPA Sales & Marketing Short Course School

The Riviera Hotel and Casino, Las Vegas
November 8 to 10, 2000

Water Environment Federation (WEFTEC) Conference and Exhibit

Anaheim, CA
October 14 to 18, 2000

ACPA Production Short Course School/MCX 2001

Charlotte Marriott City Center
Charlotte, North Carolina
February 7 to 10, 2001

OCPA/CCPA Annual General Meetings

The OCPA and CCPA Annual General Meetings are being held concurrently on February 15 to 17, 2001 in Ottawa, Ontario.

Thirty-five rooms have been booked at The Westin, Ottawa in the name of The Ontario Concrete Pipe Association until January 14, 2001.

Room rates are:

Moderate (single/double)	\$195.00
Deluxe (single/double)	\$225.00
Westin Guest Office	\$215.00

Please book your room directly with The Westin as soon as possible as it will be difficult to obtain additional rooms once the reserved block is full. Ottawa is an extremely busy city in February. You may contact The Westin at (613) 560-7000 or 1(800) WESTIN-1.

Meetings will coincide with Ottawa's Winterlude, which should provide members and guests with a variety of activities to enjoy outside of the meetings.

Register through the OCPA.

World of Concrete 2001

Las Vegas, Nevada
February 27 to March 2, 2001

ACPA 93rd Annual Meeting

The Grove Park Inn Resort, Asheville, NC
March 27 to 30, 2001

AWWA Annual Conference & Exposition

Washington, DC
June 17 to 21, 2001

CCPA Media Campaign Update

A CCPA media campaign has been launched to complement the media programs of the ACPA, OCPA and Tubécon.

Environmental Science & Engineering magazine published the article by Ryan Finley of Lafarge Canada Inc. titled “Precast concrete box culverts save large animals and costs to motorists” in its March 2000 issue. The article was also used by the Portland Cement Association for an inclusion in an insert in the May 29 issue of *Engineering News Record* in the USA.

Toronto Construction News published an article in its May/June issue describing the use of precast concrete drainage products in a high profile development in Georgetown, Ontario. The same article, “Precast concrete drainage products used for high profile development” was published in the June issue of *Environmental Science & Engineering*.

An article by Mike Smith of Inland and Mike Schmidler of Lafarge on *Standard Installations* was published in the May/June issue of *Toronto Construction News*. It will also be published in the Summer issue of the OCPA’s *Concrete Pipe Journal* and Fall issue of the ACPA’s *Concrete Pipe News*. The article has been submitted to *Canadian Consulting Engineer*, and interest has been expressed by *Environmental Science & Engineering*. It will also be sent to other industry publications in the US and Canada to attempt to get as much attention to the subject as possible.

Con Cast Pipe’s CON/SPAN and concrete pipe installation in St. Thomas Ontario was published on the cover of the July Issue of *Environmental Science & Engineering*, and as a product story in the August/September issue of *Canadian Consulting Engineer*.

If you have a product application story with a feature of general interest to the construction industry, contact Grant Lee at lee@aztec-net.com.

New Canadian Environmental Protection Act (C-32) Comes Into Effect This Fall

The new CEPA that comes into effect this fall imposes new substances management and reporting timelines, and complex new responsibilities for prevention. It imposes new classifications and greater responsibility for the management of their full life cycle. Businesses must be in compliance with the new Act.

The Act is administered by officials of Environment Canada.

Working Group Formed to Review CSA B182.6, Profile Polyethylene Sewer Pipe and Fittings

CSA has formed a working group to review CSA B182.6. This specification currently covers smooth inside wall HDPE pipe up to 48”. Larry Gill at CSA is the secretary of the Committee responsible for B182.6. The sub-committee Chair is Heather Forest of Armttec.

The working group is looking to split the specification into storm and sanitary, and that once the working group has completed their work, there will be a public review phase leading ultimately to a ballot vote for changes.

Issues to be addressed by the concrete pipe industry will be differentiation of pipe uses and quality of polyethylene resin used in the production of storm sewers.

Concrete pipe producers might contact Larry Gill to ask to be kept apprised of the committee work. His email is larry.gill@csa-international.org. This information was provided by Paul Smeltzer at the OCPA, paul.smeltzer@ocpa.com

Technical Committee Being Formed by CSA to Review CSA A257 series.

CSA A257 series Standard has not been updated since 1992. CSA International is setting up a technical committee to set the scope for the review, and then review the standard.

G. Lee has accepted an invitation, on behalf of the CCPA, from the Project Manager of CSA, Michael Mortimer, P.Eng., to participate as an associate member of the committee. Lee would be able to draw upon the expertise of people in the concrete pipe industry for input into the scoping and review.

Mel Marshall, P.Eng., is Interim Chair of the Technical Committee.

Call for Photos

The American Concrete Pipe Association is building its library of concrete pipe application/installation, manufacturing/yard and theme photos. There is an immediate need for contemporary photography for flyers, brochures, web site, advertising, displays and the CP News.

The Association will soon be announcing an award program for its members to encourage the archiving of projects and collection of photographs for use by the ACPA.

You can help now, if you have a library of recent photographs, by sending duplicate prints, or digital files with at least 300 dpi resolution to Mike Saubert at the ACPA. Please send digital photo files on zip disks, as transmittal by email ties up systems for long periods.



Les Nouvelles de Tubécon – á Surveiller Prochainement

La publication de la nouvelle norme BNQ 2622-126 sur la fabrication des tuyaux de béton armé et non-armé.

Tubécon est un partenaire de la nouvelle Coalition pour le Renouvellement des Infrastructures du Québec (CRIQ). La CRIQ est une coalition formée de divers organismes et associations ayant à coeur le progrès économique et social du Québec, par la voie d'investissements accrus dans les infrastructures de base qui assurent notre qualité de vie, notre compétitivité économique et le respect de notre environnement. La CRIQ a pour mission de sensibiliser les divers paliers gouvernementaux sur l'importance d'investir massivement dans les infrastructures urbaines de base par le biais d'un programme de subvention échelonné sur 15 ans. Pour en savoir plus sur la CRIQ, contactez Tubécon, www.tubecon.qc.ca/

Road Salt Found to be Toxic

A federal study has concluded that salt used to melt away snow and ice on Canadian roads is toxic to the environment. Maintenance crews pour an estimated 5 million tonnes of salt on roads and highways in Canada every year. That includes almost 2 million tonnes used in Ontario.

The Canadian Environmental Protection Act gives the federal government two years to come up with control measures for substances found to be toxic, and another 18 months to actually implement those steps.

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