

Know

You Should



A Message from the American Concrete Pipe Association

Bulletin No. 103

Microtunneling and RCP Keep Ontario Wetlands Intact

Revised November 28, 1996 – 1 page

CAMBRIDGE, Ontario — A microtunneling project employing concrete pipe recently demonstrated that even projects burdened with environmental controversies can be overcome using the right methods and materials.

The Cambridge city engineer determined that a mile-long sanitary trunk sewer line was necessary to replace an aging pumping station in the southwestern corner of the city. Unfortunately, the plans called for the line to bisect a narrow, marshy valley that is home to a rare species of salamander and a glacial-era beech forest. First, environmental groups protested what came to be known as the Devil's Creek Project. They were followed by the Ontario Ministry of Natural Resources, which declared the site a "Provincially Significant Environmentally Sensitive Area." That meant any project could not alter the wetland's water table, damage the beech forest, or disturb the salamander's habitat.

After four years of public hearings, all sides agreed to a plan to use open-cut installations outside of the protected areas and microtunnel through the 725-foot valley. Tenders were issued in late November 1995, and construction began in mid-December.

Waterloo Concrete Products of Cambridge supplied 30-inch reinforced concrete pipe for the project and worked closely with the contractor, Regional Sewer & Water Main Construction Ltd.

"We decided to use concrete because the PVC plastic pipe was too expensive," says Emilio Cabral, a representative of Regional Sewer.

An Iseki Unclemole microtunneling machine was used for the project. It bored through a highway embankment and a rail line, with each push approximately 140 feet at a depth of 50 feet. The Iseki also completed a 468-foot push through the silty, sandy soil of the valley, never tunneling deeper than 16 feet.

The job was completed in early April and the completed sewer line was flushed, inspected and went into service on April 19, 1996. Regional Sewer then made efforts to restore areas where open cut installations were used. Landscaping and replanting were finished May 10.