

Smoothwall pipe proves ideal for water meter pits

Problem:

The town of Bosanquet needed a way to install its water meters in homes without basements. The outdoor installation had to be below ground level, yet easily accessible and resistant to frost, rain and snow damage. • Attempts to use concrete pipe and precast concrete pits proved to be expensive and inconvenient. The backhoes and bulldozers needed for installation were difficult to maneuver between homes, and the concrete pits were too narrow to easily inspect and repair the water meters. They were also ineffective in keeping the water meters from freezing in the Canadian winters.

THE CORRUGATED POLYETHYLENE PIPE SOLUTION:

Peter Hegler, P.Eng., working for the town of Bosanquet, designed his own meter pits using 30" (750mm) diameter smoothwall high density polyethylene pipe. So far, he's used 2,000 feet of pipe to create about 400 meter pits; he's in the process of building new pits to install an additional 400 meters along a new 54-mile water line. "You get twice the product for half the price of the all-concrete pits," Hegler says. He has shared his idea with representatives of other nearby municipalities, and received a very favorable response.

INSTALLATION DETAILS:

Hegler cuts the pipe into five-foot lengths, installs it vertically below the ground, and covers the top with foam insulation and a concrete lid. "The 1" (30mm) dead space between the walls of the pipe provides enough insulation to keep the meters from freezing. The installation is much easier, since we can make field adjustments by hand," he says.

Project: Water Meter Pits

Location; Bosanquet Regional Water Supply, Bosanquet, Ontario, Canada

Engineer: Peter Hegler, P.Eng., Bosanquet, Ontario

Contractor: Town of Bosanquet

Timing: 1997-present

"The polyethylene pipe is easier to handle, it's lighter weight, and it's cheaper to use."

Peter Hegler, P.Eng., Bosanquet Regional Water Supply, Bosanquet, Ontario