CASE STUDY

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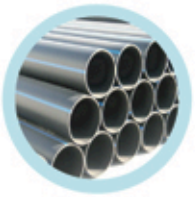

ESSEX, MD **CASE STUDY**

LOCATION: Essex, MD

PROJECT SCOPE: Upgraded water main and water distribution system for fire protection

APPLICATION: 1,125 feet of 12-inch HDPE pipe and 1,200 feet of 16-inch pipe

PROJECT DATES: May 2004

KEY CONTACTS: Mike Mazurek, project engineer – Baltimore County Dept. of Public Works
Vern Dettman, contractor and project engineer - J. Fletcher Creamer & Son, Inc.

SUMMARY

In waterfront communities all across the country, such as those along a 175-mile stretch of eastern Baltimore County in Maryland, pleasure boating is a multi-million dollar industry.

As of May 2004, luxury boat owners in Dundalk, Essex and Middle River can store their craft year-round at the Sunset Harbor Marina, home of the county's first "boatel" – a three-level facility with capacity to store craft up to 40 feet long.

One of the selling points of the new 62,000 square-foot, $3 million facility was a state-of-the-art fire protection sprinkler system. To those boat owners, protecting against fire means protecting their investment.

And as county officials were making decisions on how to upgrade the local infrastructure to accommodate the boatel, they were reminded of a persistent problem.

"The existing 8-inch ductile iron pipe was installed in 1968 and had about 10 failures in the last 10 years," said Mike Mazurek of the Baltimore County Dept. of Public Works and project engineer. "That particular section of the northeast part of the county near Chesapeake Bay has very corrosive soils." The solution was to install more than 2,000 feet of smoothwall high-density polyethylene (HDPE) water pipe. The result was positive for the residents in two ways – the water main that served the existing homes and businesses was upgraded, and the marina boatel now benefits from a reliable, leak-free water distribution system for fire protection.

"I was very familiar with HDPE as a piping material," said the contractor and project engineer Vern Dettman of J. Fletcher Creamer & Son, Inc. "We've installed it a lot in fiber optic applications, pipe bursting, sewer applications and electric conduit applications. We started out with 16-inch lines, went to 12-inch about halfway down, and used side-saddle fusion to connect to the hydrants. It was very easy to put in."

Dettman added that traffic along Browns Ave. – the residential street where the pipe was installed – was not disrupted in the process. All of the fusion was done above ground, the existing pipe was just left in place, and the HDPE pipe was simply lowered into the trench.

"It really was a two-birds-with-one-stone scenario," Mazurek said. "As areas like these continue to grow, the infrastructure needs have to be able to grow with them. We'll monitor how this system performs, and we're thinking of specifying more projects with HDPE pipe."

The Browns Rd. project included 1,125 feet of 12-inch HDPE pipe and 1,200 feet of 16- inch pipe.

Source: PPI *(see PPI article for full details)*

Please do not hesitate to contact the Alliance with any questions or comments.
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