

# Custom Trench Shield Spreader Arch Turns Project Fast

The Columbus, GA, Consolidated Government recently awarded an important underground utility project to Reynolds Inc. which involves installing a new combined sanitary sewer line with storm overflow along the city's Sixth Street.

The new line will connect to the treatment plant along the Chattahoochee River. Reynolds is installing 3,000 linear feet of pipe in phase one of the three part project. When entirely completed, more than 8,000 feet of pipe will be installed.

This project was particularly challenging because of the size of the pipe, the depth it was installed and the extreme trench box clearance necessary for installation.

The pipeline had limited access adjacent to a busy suburban road. Because of this, sloping the pipeline trench was not an option, so Reynolds decided to use trench boxes to shore the pipe installation.

The job required laying 506 pre-cast cement culvert pieces, each 14 by 12 by 6 feet. Reynolds bid the job with the intention of shoring the 20- to 30-foot deep trench by stacking a pair of 10 by 30 trench boxes they had in their fleet, and benching down where necessary. However, the trench boxes alone did not have enough pipe clearance for the big culvert pieces.

"When it became apparent that we were going to need a high-clearance spreader

arch for one side of the boxes, we immediately contacted Rick Davis at United Rentals Trench Safety Division in Fairburn, GA," says Craig Wiley, Reynolds' vice president of southeast utilities.

Davis called Mike West, vice president of engineering at Efficiency Production Inc., a leading manufacturer of trench shielding and shoring equipment, headquartered in Michigan. "What we decided to do was build a custom-designed wide flange spreader arch, what we call our 'Big Mo' arch, which ties to both stacked trench boxes," says West. "With Big Mo, Reynolds was able to get the full 20 feet of pipe clearance."

## Fit and quick

Davis adds that, "There were two things amazing about the arch. The first was that it fit a competitor's manufactured trench shield. The second, and most amazing: I ordered the arch on a Wednesday, and it was delivered onsite the following week."

"There was no down-time at all," says Wayne Evans, Reynolds' project manager. "We knew that we could be lifting the boxes in and out (of the trench) all day long, so that's why we needed a spreader arch, and not some other shoring system. Overall, we're very satisfied with our progress."

Reynolds used a Cat 375 excavator for the

pipe installation, as well as a Manitowoc 175 Tracked Crane and a Cat 330 excavator on the back end with a compacting bucket. Phase One of the project started in October 2007 and is scheduled for completion in May 2008.

Reynolds is an established company whose history goes back nearly 70 years. They offer design and construction services for treatment plants, pump stations, water/wastewater and process pipelines, wells and groundwater source studies, sewer rehabilitation and concrete forming.

Founded in 1997, United Rentals is the largest equipment rental company in the world, with nearly 700 rental locations throughout the United States, Canada and Mexico.

Efficiency Production provides a wide selection of standard and custom trench shielding and shoring systems. All products are P.E. certified to meet OSHA and MIOSHA standards.

## FOR MORE INFORMATION:

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