

Cal Contractor

MAGAZINE

UNDERGROUND CONSTRUCTION ISSUE



TRAUTWEIN CONSTRUCTION, INC.

TACKLES NEWHOPE PLACENTIA
TRUNK SEWER REPLACEMENT
PROJECT

PG. 6



TRAUTWEIN CONSTRUCTION, INC. TACKLES NEWHOPE PLACENTIA TRUNK SEWER REPLACEMENT PROJECT

By Brian Hoover, CMS, Senior Editor



Using SBH slide rail shoring linear application with rolling adjustable struts at 16' deep and 6'6" wide.

It is easy to see when California's highways, roads, and bridges are in need of repair or replacement, but what about our underground water infrastructure systems? Out of sight, out of mind seems to be the mantra of the day as budgets are pushed beyond their limits and costs are rising rapidly.

Much of California's water infrastructure is in desperate need of repair and expansion, but too often relief comes only as failures occur.

Orange County has more than 30 local sanitary sewer agencies and two regional sanitation agencies currently serving 3.2 million residents.

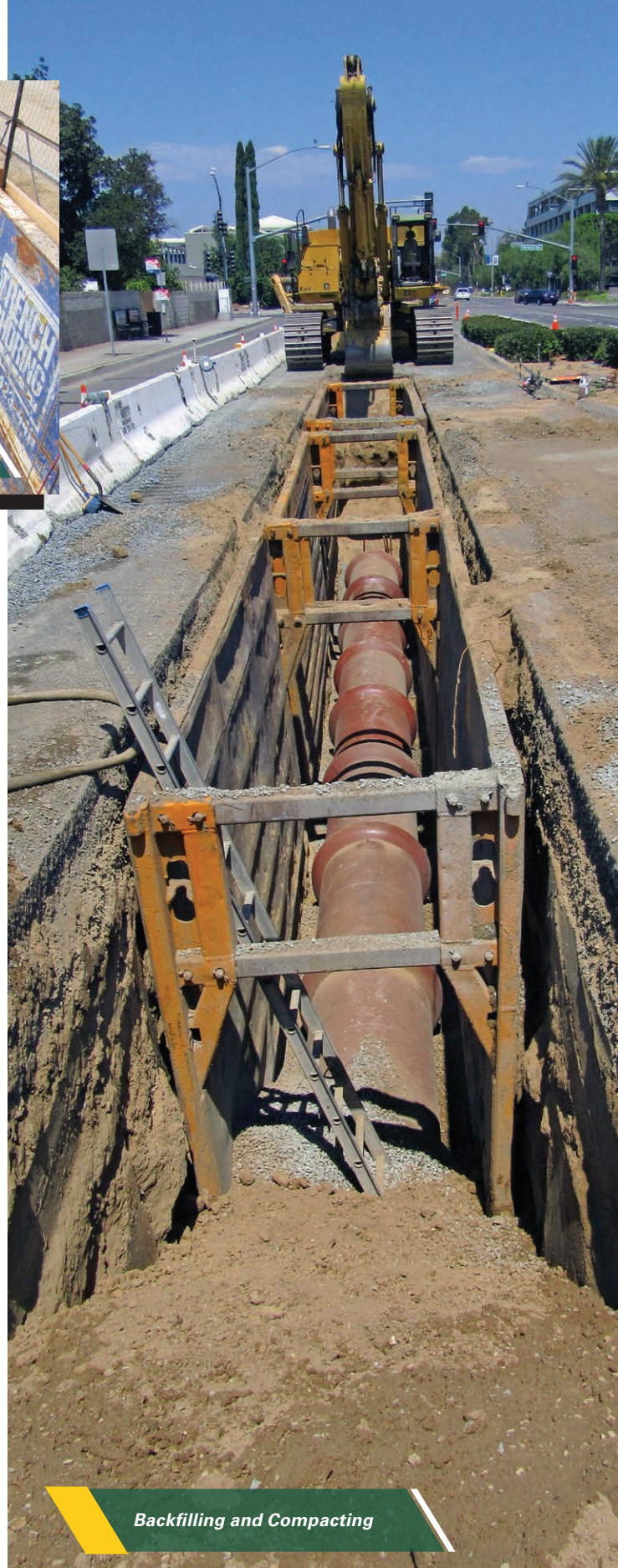
With a population projected to increase to 3.6 million by 2030, will they have the appropriate sewer and water infrastructure capacity to handle this growth? Well, they are headed in the right direction with the Newhope Placentia Trunk Sewer Replacement Project that will increase the size of the current



Bore Pit using SBH slide rail for 2 bays with rolling strut and sheeting guide plate for casing opening at 20" deep, 12' wide and 42' long.

system by replacing more than 7 miles of sewer line with larger diameter pipe. The original or existing Newhope-Placentia Trunk Sewer was constructed in 1959 and has now reached the end of its service life. The Orange County Sanitation District (OCS D) began Phase A of this project in April 2016 with Trautwein Construction, Inc. winning the bid at just over \$21 million. The current sewer pipeline is not sufficient to handle the projected flow, and it is consequently being replaced and expanded to increase system reliability and further reduce the risk of unhealthy sewer spills. The flow had already been diverted into the Santa Ana River (SARI) line instead of being routed to the previously existing Newhope-Placentia Trunk Sewer due to the insufficient capacity. Approximately 12,000 feet of pipe will be replaced from the Yorba Linda Pump Station at State College Boulevard in the City of Fullerton, to Orangewood Avenue in the City of Anaheim, located around 400 feet south of the 91 freeway. An additional 3,500 feet of pipe located north of the Yorba Linda Pump Station, known as the Rolling Hill Sub-trunk Sewer, will also be replaced to handle future sewer flows.

Mike Lowen is an estimator and project manager working for Trautwein Construction Inc., and he is working closely with everyone involved with the Newhope Placentia Trunk Sewer Replacement Project. "The initial phase of this project is scheduled to be completed in August of this year, and it has been both a rewarding and challenging project," says Lowen. "We have or will be installing approximately 12,000 linear feet of pipeline, ranging from



Backfilling and Compacting



Two Caterpillar excavators backfilling in tandem.



Trautwein's foreman Augie Mendez hard at work.



30" to 36" VCP (vitrified clay pipe) to 48" FRP (fiberglass reinforced plastic pipe)." Lowen points out that one of the bigger challenges on this project has been the relocating of much of the existing utilities to make room for the new sewer pipeline. "We relocated water, gas, and storm drain lines to accept the alignment that the new pipeline is on, and some of the sewer pipes owned by OCS D have been simply abandoned," says Lowen.

"It has been day after day of installing pipe and manholes, and much of the work has been done at night and on weekends." The entire project could sound fairly mundane until you consider other extenuating circumstances such as the fact that several thousand feet of the new pipeline was installed adjacent to Cal State University Fullerton. "Traffic considerations in and around the university was a big issue, and our contract

mandated that we finish around 4,000 feet during the summer months. We had just nine weeks to install, test and restore the street before the opening of the fall session," says Lowen. "This is why we worked so many nights and weekends."

The pipeline is being installed utilizing both open trench and trenchless construction, and according to Lowen, ground conditions have fluctuated from nice clay conditions at the top to

[Continued on page 10]



Using trench shields on north side of project where the stability of the soil was better.



Switching from trench shields to SBH slide rail due to running soil.

[Continued from page 8]

bottom running sand. "We were issued specific requirements for the bottom running sand areas where slide rail and beam and plate shoring could only be utilized," says Lowen. "In other areas, we were able to use jacks, trench shields, and trench boxes." Trautwein Construction, Inc. rented all of their shoring systems and equipment from Trench Shoring Company. "I have to say that Trench Shoring Company has always been there for us over the years," says Lowen. "They always have what we need. They are always on time. Their sales personnel are extremely knowledgeable and helpful, and their customer service is impeccable." Trautwein Construction, Inc. is primarily utilizing conventional excavators to open trenches anywhere from 6 to 10 feet in width, and down to a depth of 12 to 20 feet depending on the soil conditions. "We are also utilizing underground directional boring on certain portions of the project where we are either unable or not allowed to disturb existing pavements," says Lowen.

Mike Lowen makes it clear that the job has gone very smoothly and he gives all of the credit to the amazing Trautwein Construction crew. "There are penalties associated with this project for not finishing on time, and our crew members have worked tirelessly to keep this job safe and on schedule. Augie Mendez is our superintendent and foreman on this project. He has been the driving force out in the field, and I promise you, there is simply no one better," says Lowen. "This particular job is right up our alley, and this is the kind of work we like to do. We are known in the industry for taking on the more challenging projects, and this job has been full of challenges."

The Newhope Placentia Trunk Sewer Replacement Project has another phase that is scheduled to begin in winter 2018. Phase B will take place along State College Boulevard, from south of the 91 Freeway to Orangewood Avenue in the City of Anaheim. It will include a segment from Craig Regional Park to Associated Road and East Bastanchury Road in the City of Fullerton. When the project is fully complete, it will extend the useful life of the Newhope Placentia sewer lines for another 50 years.

Trautwein Construction, Inc. is owned and operated by Mark Trautwein, who after working in the business for several years, decided to go out on his own back in 1989. The company started out as a public works company, working more on the hardscape and landscape side of the construction business. In 1994, the focus moved to underground utility and pipeline construction, as the company continues to grow strong with 30-plus employees. For more information on Trautwein Construction, Inc., please call their Rancho Cucamonga headquarters at (951) 369-8901. **Cc**