

Project Spotlight

Trench Project: Utility Backfill - Branson, MO

Owner: City of Branson, MO
Installer: CellFill, Inc.

Engineers: Cook Flatt & Strobel Engineers
Project Program Manager: Olsson Associates



Background Information

Trenches are one of the most common but also one of the most complex types of construction projects. There is a plethora of considerations when constructing or remediating a trench, especially a trench that houses municipality utilities. In September 2016, the City of Branson, Missouri hired an outside consulting firm, Olsson Associates, to manage the construction of what would be one of the city's most vital trenches.

Project Details

One of the most important aspects of trench construction is minimizing the load placed on the underlying soil. Soil settlement is always a possibility, and it is essential that the materials used in the trench construction reduce that potential, especially for trenches that run alongside major roadways, as is the case with this particular trench.

The Grove, Oklahoma based contractor, CellFill, LLC was well-aware of this concern and chose to use Aerix Industries' AQUAERiX™ permeable low-density cellular concrete (PLDCC) as the backfill material. The first step in this construction was the excavation of the trench. Once the excavation was completed, the new utilities were put in place, and the entire trench was backfilled with cellular concrete to achieve the original grade of the soil. The two-person installation crew from CellFill completed 100-foot segments in stages, installing the AQUAERiX™ to fill the five-foot-deep-by-eight-foot-wide trench. Todd Chandler a P.E. from Olsson Associates, had not worked with lightweight cellular concrete in the past and said, "I was skeptical at first, but now I am a believer. While this project is scheduled to be complete in 2018, the team from CellFill is working quickly and steadily to provide the City of Branson with what promises to be one of its most durable trenches.

Aerix Added Value

Because of its high compressive strength and lightweight characteristics, Aerix's AQUAERiX™ was ideal for this project, providing supreme protection for the city's utilities by significantly reducing the load placed on the underlying soil and minimizing the potential for future soil settlement. In addition, because AQUAERiX™ is highly flowable and easy to install, it has enabled CellFill to complete this construction with impressive speed, ensuring that the city's utilities will be in place as quickly as possible.

