

## FOOD for THOUGHT

Geotech Services has begun a series of private educational/informational seminars staged for select engineering firms in the Great Lakes Region. These programs, entitled "Food for Thought" are hour-long luncheon sessions that focus on geotechnical issues that are specific to each engineering firm's area of interest and expertise. *If your firm is interested in discussing a potential "Food for Thought" seminar, please contact Ted Webster at 440-439-5821.*

### DIGGING DEEP PRESIDENT'S MESSAGE



I'm a big believer in the power of relationships. I think they define who we are as individuals and as a company. We value our personal and professional relationships and strive to maintain them.

I also believe that the working relationships between architects, engineers, general contractors and specialty contractors like Geotech Services are critical. A level of trust and confidence has to be there – as well as an open and flowing pipeline of communication, to deliver a successful project.

Let me give you an example... We recently began presenting luncheon seminars (entitled "Food for Thought") to engineering firms throughout Ohio featuring information on soil nails, rock anchors and micro piles. The program has been well received and the feedback has been great. But what we're most proud of is the realization of the strength of the relationships in place and the willingness of our engineering colleagues to open their doors to us. It reinforces my belief that

developing strong relationships are at the core of good business for all concerned. We know how fortunate we are to work with great partners.

Have a great construction season!

Sincerely,

*Ray Tartabini*

Ray Tartabini, President  
GEOTECH SERVICES, INC.

**On the Road:** Geotech Services will be attending and exhibiting at a variety of industry trade conferences in 2015. Watch our website ([www.geotechservicesinc.com](http://www.geotechservicesinc.com)) for news on our next exhibit!



#### A GEOTECH CASE STUDY

## Reinforcing a troubled bridge over water

*Micropiles installed to lend support to McCall Memorial Bridge project*

A span of the Pennsylvania Route 209 was slated for rehabilitation in 2014 on the Thomas J. McCall Memorial Bridge over the Lehigh River, Lehigh Canal and Norfolk Southern rail line in Franklin Township, Lehigh and Weissport boroughs, Canal County. The project involved deck repairs, replacing deck joints, steel bearings, concrete and steel repairs, latex overlays and the removal and replacement of pier 4. The work being done on the bridge would add weight to the deck and would therefore require increasing the capacity for pier 4. Geotech Services, Inc. was called in by the general contractor on the project, J.D. Eckman, Inc. of Atglen, PA to install micropiles.



(continued)

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built in 1938

# Thomas J. McCall Memorial Bridge



“SOIL CONDITIONS WERE SUCH THAT THE ORIGINAL FOUNDATION WAS ON THE SOIL BUT THE ROCK WAS ANOTHER 15 FEET DEEPER,” SAYS PRINCIPAL ENGINEER FOR GEOTECH SERVICES, TED WEBSTER. “USING MICROPILES, WE CARRIED THE LOADS INTO THE DEEPER ROCK TO PROVIDE BETTER SUPPORT.”

# MICROPILES

The Thomas J. McCall Memorial Bridge was originally built in 1938 and reconstructed in 1981. It is a 16-span steel deck truss bridge that is 1,539 feet long and 42 feet wide. Since the bridge is a primary roadway over the Lehigh River, service needed to remain in place for the daily volume of nearly 24,000 vehicles during construction.

J.D. Eckman transferred the bridge truss and deck load to shoring towers on each side of the original pier, and removed the pier down to the foundation. Geotech then stepped in to install micropiles through and round the original foundation to augment the capacity. The challenge was to work with space limitations (both vertical and horizontal) and take caution not to damage the temporary support while installing the micropiles. “With the overhead structure, there were some space issues so we couldn’t just bring in big pile drivers. Because we have the flexibility of engineering our own equipment, we have a rig that is used with low overhead clearance,” says Paul Stubbs, Operations Manager for Geotech Services.

In total, 24 micropiles were installed, each approximately 36 ½ feet in length and each have a factored load capacity of 267,000 pounds. Some were battered piles installed at the specified angle.

“Soil conditions were such that the original foundation was on the soil but the rock was another 15 feet deeper,” says Principal Engineer for Geotech Services, Ted Webster. “Using micropiles, we carried the loads into the deeper rock to provide better support.”

The micropiles were installed in 3 weeks. “We were very sensitive to the time table. We wanted to help move the project along for J. D. Eckman and knew that a key concern was to keep traffic flowing through that area while we worked,” says Webster.

Geotech Services’ work on this project met both Federal and PennDOT specifications and requirements.

## IN THE TRENCHES



Geotech Services has been conducting private educational/informational seminars focused on soil nails and rock anchors for select engineering firms in the Great Lakes region. This program, entitled “Food for Thought” is an hour-long, on-site luncheon session. Ted Webster, Geotech Services, Inc.’s Principal Engineer is the presenter of the program which has been well received by attendees throughout the state of Ohio. “Folks tell us they appreciate the fact that we bring the program directly to them. It includes ‘when and why’ to use

soil nails or rock anchors, installation procedures, engineering calculations and live examples.”

Participants earned a Continuing Education Unit (CEU) for the seminar and feedback included a desire to add curriculum in the future addressing the use of micropiles. Webster is working on a program as a direct result of those requests.

If your firm is interested in discussing a potential “Food for Thought” seminar, please contact Ted Webster at 440-439-5821.