

# PDCA Awards Professional Engineer's Service Award to Pat Hannigan

**Over the years, Hannigan has worked with numerous contractors and engineers at the forefront of driven pile foundation design and construction**

By Lisa Kopochinski

Pat Hannigan's love for the pile driving industry began as a student in the early 1980s. After graduating with a Bachelor of Science degree in civil engineering from the University of Notre Dame, followed by a master's degree from University of Missouri-Rolla, the young professional engineer became involved in his first pile driving project in 1981.

"I volunteered to monitor a static pile load test being run over a holiday weekend," said Hannigan, who is president GRL Engineers in Cleveland. "Shortly thereafter, I got more involved in driven pile foundation projects by performing dynamic pile tests, CAPWAP analyses, wave equation analyses and preparing pile installation summary reports."

Now, nearly 35 years later and licensed in more than 20 states, he loves the industry more than ever.

"What I like most are the people, projects and challenges," he said. "Over the years I have had the opportunity to work with numerous contractors and engineers at the forefront of driven pile foundation design and construction. These projects have included major bridges, high-rise buildings, stadiums, offshore platforms and industrial facilities. Several projects involved challenging pile installation conditions as a result of subsurface conditions, equipment capabilities or time constraints."

An active PDCA member for 13 years, Hannigan served on the association's board of directors for six years; has been an instructor at seven of the eight Professors' Driven Pile Institutes; and attended most of the PDCA annual conventions and DICEP events over the past decade.

It's a slam-dunk for him to be selected for the PDCA Professional Engineer's

Service Award, which is presented to an engineer who has made a significant contribution to not only the association, but the driven pile industry as a whole, and any of the engineering disciplines – geotechnical, civil or structural.

"Pat has dedicated so much of his time to PDCA educational events and technical activities," said now-PDCA immediate past-president, Mike Justason. "He is always willing to share his expertise, whether as a speaker at DICEP, an instructor for our Pile Inspector's Course or other educational events. His generosity is enormous. His recent work with the FHWA will benefit all pile drivers and pile designers."

Hannigan is honored to have been recognized for the award.

"I am honored to have received this award and thank PDCA," he said. "The main benefits you derive from membership are the connections and friendships you make with contractors, engineers and suppliers. When you have a question or problem on any topic in the industry or are looking for another viewpoint from the design or construction side, you can reach out to those individuals and get another perspective on the issue."

Hannigan adds that while many things in the industry have changed over the years, many of the pile types and pile sections have remained the same.

"The loads applied to pile sections have increased dramatically from the time I started," he said. "This has made each and every pile more important to the constructed foundation and its performance. Bigger pile sections, larger pile driving equipment and enhanced equipment capabilities have developed and are readily available to meet foundation design demands. Environmental and safety considerations are significantly



Courtesy of GRL Engineers

more prominent in both the design and construction process."

While many of these changes are definite improvements, challenges still remain, with noise probably topping the list.

"In an increasing number of locations around the country, concerns over pile driving noise or potential vibrations sometimes eliminate driven piles as a deep foundation option," he said. "Potential solutions may be available to address those concerns, but those solutions do not get evaluated further because driven piles were prematurely dismissed from design consideration."

Still, challenges notwithstanding, Hannigan has no plans to leave the industry he loves anytime soon.

"I plan to continue being actively involved in technical and educational activities in the areas of driven pile design, quality control and dynamic pile testing methods. I'm not going anywhere." ▼