



# A Unique Perspective from a Multi-faceted Career

**JOHN PEIRCE, PEIRCE ENGINEERING, INC.**

By Lisa Gordon

John Peirce has learned a lot of valuable lessons over his 46 years in civil engineering.

During that time, he's completed a couple thousand projects, mostly designing and building temporary and permanent earth retaining walls to facilitate road and bridge building, cofferdam and foundation construction, and shoring and underpinning of all types.

While working on his Bachelor and Master of Science degrees in geotechnical engineering at Drexel University – earned in 1973 and 1978, respectively – Peirce landed a co-op position at The Conduit & Foundation Corporation's corporate headquarters in Philadelphia.

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– John Peirce

Photos courtesy of John Peirce

“I worked out in the field and got involved in heavy construction,” said Peirce, who says that suited him just fine. In the early days of his career, he never wanted to be cooped up in an office.

Following graduation, he was hired on with The Conduit & Foundation Corporation and specialized in highway construction with them for 15 years, before moving on to geotechnical specialty contractor Schnabel Foundation Company.

Peirce stayed with Schnabel – a design/build specialty contractor focused on temporary and permanent earth support – for 11 years, eight of which were served as branch manager of the Philadelphia office.

In 1992, Peirce co-founded Peirce Engineering with his wife, Beth, and daughter, Jennifer Peirce Brandt, who is also a professional engineer. Later, his son, John – another professional engineer – joined the company.

By 1997, Peirce was focusing on the family engineering firm full-time. His diverse professional background and varied experience has served him well.

“I have a unique perspective,” he said. “I’ve done highway work, plant work, utility work, estimating, project managing and I’m a retired surveyor. I was everything from a lowly rod man all the way up to a project manager.”



### Lessons learned

*PileDriver* recently caught up with Peirce to talk about his impressive career and some of the key lessons he’s aiming to pass along to his children.

From three key mentors over the years, Peirce learned the importance of being familiar with every aspect of a job, staying quiet when he was unsure of his facts and dealing with people fairly while remaining organized and solutions-oriented.

Having worked in both construction and engineering, Peirce said both sides must try to understand each other.

“Engineers need to know how things are built. They need to know what contractors can and can’t do, safely and economically,” he said. “I see designs by some engineers today that are unbuildable and unsafe. You have to get out there and learn it.

“As for contractors, well, they need to know they’re not necessarily as smart as they may think they are, and sometimes an engineer knows more. The same applies to engineers!”

As he comes up on five decades in the business, Peirce has seen enough to know what can and can't be done. He believes there should be more emphasis on field experience for professional engineers.

"When an engineer applies to take the Professional Engineer test, a detailed resume is required to be submitted and approved," he said. "I don't think state engineering boards value construction experience as much as they should. I think every engineer should have to work in the field before licensure. It's easy to know things you should do, but it's just as important to know things you shouldn't do. Field experience is most important!"

### All in the family

When Jennifer Peirce Brandt was growing up, she told her parents she would never be an engineer.

"But when it came time for college, she said, 'I think I'm going to be an engineer,'" laughed Peirce. "She's a detail-type person, like I am. So, she took engineering, and here she is today."

When his daughter took maternity leave, the timing was right for Peirce's son, John, to join the firm, following in-the-field employment stints with two well-known engineering firms. Today, the business employs two of the Peirce's four children.

All three Peirce engineers are graduates of Drexel University. And while she's not an engineer herself, Beth Peirce is "the voice of reason" in the office.

"She played a very important role in my development, because she chose to be a stay-at-home mother, and I can't emphasize how much I appreciate that," said Peirce. "She allows me to do what I do, work late hours, and she is always there. A lot of engineers, they don't have that. It's tough to balance all that. My wife makes my life easy."

*PileDriver* asked Peirce to describe what it's like working with his family.

"It's good working with them. The only bad part is they see me all week and then maybe they've had enough of me!" laughed Peirce. "But it's good, you're working with people you trust and who have the same goals."

He appreciates the chance to pass along his knowledge to the next generation of Peirces, and said he's trying "to make sure my kids earn everything they're getting."




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John and Beth Peirce like to drive to Chesapeake Bay, where their 33.5-foot sailboat "Knot at Work" is moored

**Understanding the work**

A member of the Pile Driving Contractors Association since the late 1990s, Peirce said the association is a good source of referrals and networking opportunities.

"It's a chance to get in front of some of these people and let them know who we are and what we do," he said.

There's no doubt Peirce has done a lot – and many of those jobs involved driven piles.

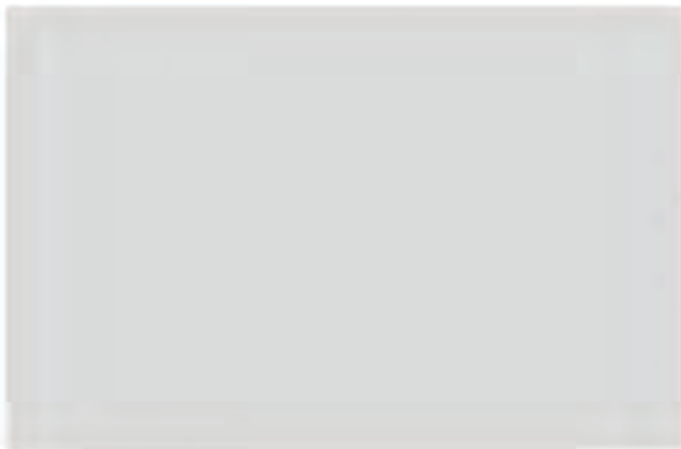
He recalled a challenging project that involved designing a cofferdam next to a riverfront casino.

"We had to put 1,500 linear feet of deep-sheeted trench in, ending in a cofferdam out in the river. I had to design the cofferdam – I had to build flapgates in it so that during a storm they could open and allow stormwater [and raw sewage from a treatment plant] to go out in the river. It had to be able to pass through at a rate of 900,000 gallons per minute."

Challenging jobs like that allow Peirce to exercise his expertise – but he said not everyone these days is happy to see an engineer called in.

"The big change I have seen in my career is that when I started in the 1970s and into the late 1980s, people were glad to see a specialty contractor come on the jobsite and take care of the problem," he said. "You were the expert; you came in and you did it – few questions asked! Then, some companies began using more temporary techniques for permanent applications, and everything these expert contractors were doing for years was being discounted."

With more specialized equipment available to rent or buy, Peirce said things can be done much quicker than in the past.



"Unfortunately, a lot of people now are winging it who shouldn't be winging it," he said, adding that price has become more important than ever before when it comes to winning bids.

"Provision of specialty engineering services is becoming more of a commodity. People are basing a lot of decisions on price alone. I've lost design jobs by as little as \$1,000, only to find out the designs that beat me weren't economical. In the future, it's going to be tough because that's going to continue."

Peirce says it's crucial to really understand the work, and it's important to take the time to build that knowledge.

"Don't be in a big hurry to be a designer," he said. "Learn how to build something first. Get a well-rounded background with some construction and some engineering. There is plenty of time for designing."

Peirce tries to pass this lesson along to students taking the Foundation Engineering graduate-level class he teaches at Villanova University.

"I will often run into a student who says they're going to graduate and open their own firm," he said. "But you must learn on the job – get out in the field and see it. College just gives you the background."

**Sailing into the future**

While Peirce, 68, continues to find fulfilment in his professional career, he is also beginning to carve out a bit more free time.

"This summer during boating season, from late May to mid-October, I told the kids I'd be taking off on Fridays."

On those days, he and Beth drive down to Chesapeake Bay, where their 33.5-foot sailboat, aptly named "Knot at Work," is moored.

But now that sailing season is finished for this year, the Peirces are turning their attention to sports.

"When my kids were growing up, the four of them played all kinds of sports. They've been very successful at school and also in athletics. I spent all my time running around to sporting events.

"Now, I have grandkids," said Peirce. "Two grandsons and two granddaughters are playing sports, and two more are coming up."

Although retirement is a notion that pops into his head more and more these days, Peirce still enjoys the time he spends in the office.

After serving his time out in the field, he has come full circle.

"Being out on the job site is important and still enjoyable, but the office is just a lot more comfortable these days." ▼