THE OFFICIAL PUBLICATION OF THE
PILE DRIVING CONTRACTORS ASSOCIATION

Q4 2012 | Vol. 9, No. 4

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A Vision for PDCA

By Dave Chapman, President, Pile Driving Contractors Association

The summer quarter always seems to go by too quickly. Here in New England the weather is perfect, but we all know what is in the future.

In discussions with many members, work seems to have begun to pick up somewhat in many areas and some members have been very busy. The general consensus is that things have gotten somewhat better and the outlook is a very cautious optimism.

Back at the ranch, things at the PDCA have been busy. We have hired a new staff person, Jessica Fasanella, to help keep everything moving. We wish her luck with the new job and welcome her to the PDCA family.

In August we had a dual program in Baltimore, Md. The first day we had a pile load test options seminar, which was moderated by Van Komurka. Expert practitioners discussed many new innovations in testing options for piles. The presentations covered a wide array of testing options and what is new with each. The areas covered included static testing, high-strain dynamic monitoring (pile driving monitoring) and rapid-load testing. At the end of the discussion was a wrap-up by Van, who put the menagerie of tools into perspective, followed by a round table discussion with the presenters and the audience about the techniques. To all of our presenters, and especially to Van, I would like to extend thanks on behalf of PDCA for your time and effort, without which this program would not be possible.

The next day PDCA rolled out its new Load and Resistance Factor Design (LRFD) course. Jerry DiMaggio, retired chief geotechnical engineer for the Federal Highway Administration, and related to Joe DiMaggio, agreed to put together a course on designing pile foun-

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Continued on page 4

- Ranges from 10–20 NPS
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dations in accordance with AASHTO's LRFD. This was the pilot presentation. Jerry went through not only how to design piles with this method but also how it was developed and the advantages it offers. If you are an "allowable stresser" like me, you owe it to yourself to learn this new method in a course that takes you through the how and why. We will be bringing the course to other venues, so keep reading *PileDriver* magazine, watch the website, www.piledrivers.org, and read your monthly E-Letters to find a location near you.

Your past president, Buck Darling, and I attended a meeting of the Geo-Coalition to discuss raising the status of geo-professionals. As I flew back from this meeting, I reflected on what image I would like for our organization. I would like us to be the people who have a better, deeper understanding of pile driving. What I would like is when an owner, architect or construction manager has a question about pile driving, they say "Let's ask a PDCA contractor, engineer or supplier," and that a simple PDCA sticker on one's hard hat inspires confidence in those who hire us.

The general consensus is that things have gotten somewhat better and the outlook is a very cautious optimism.

By the time you read this, the October DICEP will be in our rearview mirror. I hope you were able to attend. Please mark your calendars for April's annual meeting in Orlando, Fla. and I will see you there.

Until next time, stay safe and stay busy. ▼

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Knowledge, Insight and Opportunity – Information Designed to Shape Your Future!

Everyone likes to know about events well in advance, so they can evaluate the relevance of the program, discuss it with business associates or family, check schedules and then finally commit. The process of committing can be lengthy, given daily schedules of running a business or project or driving the kids to soccer, football or cheerleading practice. Therefore, the following information is being sent well in advance for your consideration. Hopefully this will allow you to take all the necessary steps to schedule this very important, knowledge-packed, highly insightful, opportunity-creating event that is intended to augment your pursuit for a better tomorrow.

Knowledge, Insight and Opportunity – Information Designed to Shape Your Future!

This is the theme of the 17th Annual PDCA International Conference and Expo 2013. Knowledge is at the root of many challenges and decisions we face in a given day. Knowledge relates to truth, belief and justification. With knowledge, and applying those three notions to any given situation, we have the insight to approach a situation with greater confidence and a more predictable outcome. With knowledge and insight, the chances for greater opportunities lie at our fingertips – it's just a matter of applying the three in a rational, deliberate, objective and reasonable manner.

The PDCA annual conference will have knowledge, insight and opportunity in abundance. First, the ten general session presentations the PDCA Education Committee has planned will certainly be knowledge-packed. While all of the sessions have not yet been selected (at the time this magazine is published), you will be treated to presentations on technology, case histories, business and more from both the private and public sectors by speakers who are experts in their fields of industry, business and government. As an added bonus, engineers will have the opportunity to pick up those much-needed Professional Development Hours (PDH), including those that need to meet the requirements of New York, Maryland and Florida.

As is the custom of all PDCA annual conferences, you will find contractors, suppliers, service providers and manufacturers present as exhibitors during the conference. If you want knowledge and insight into the latest and greatest that is on the cutting-edge of your industry, then you will not want to miss this portion of the conference. The exhibit hall is also a great place to connect or reconnect with old clients and friends as well as establish new business relationships and long-lasting friendships – opportunity!

Speaking of old friends, the Companion Program will return to the PDCA annual conference, allowing spouses and guests to come together again, as they have for years, to get reacquainted and enjoy the company of one another. This year's program is being developed by a couple of Companion Program veterans, so the final schedule is guaranteed to be entertaining, fun-filled and exciting for all of the program participants. Don't forget, we are in Orlando, Fla.! With Disney, Epcot, Animal Kingdom, Universal Studios, Sea World, Winter Park, the Richard Petty Driving Experience, Gatorland and more, you could make this a family event; even the Omni Hotel and Resort has a lazy river, zero-entry family pool, a formal pool with cabanas, teen activities, a resort arcade and more. PDCA has secured conference room rates for three days prior to and three days after the conference, so you can come early or stay late and enjoy Orlando with the family. For the golfers among you, we will play the Inaugural PDCA Scholarship Fund Golf Tournament on the Greg Norman-designed National Course, but you can come early or stay late and play the International Course or get a lesson at the David Leadbetter Golf Academy, all of which are on property.

PDCA is always interested in your comments and we listened to you and the feedback we got from the 2012 annual conference. Two things PDCA will do in 2013 include keeping the exhibit hall open the entire time and introducing a general business meeting. The exhibit hall staying open during the entire conference is self-explanatory, but I want to tell you about the general business meeting. This morning program (buffet breakfast and meeting) will be an opportunity for the PDCA Board of Directors to speak directly to the membership regarding PDCA's goals and objectives planned for your association. This will be similar to a "State of the Union" address, but I assure you it will be much shorter and more entertaining than those given in the House chamber. But this is not meant to be a one-sided conversation – oh no! During this meeting, the board wants to engage the membership in a meaningful dialog about what you want from your association. They want to hear from you about service, products, benefits, education, new ideas or whatever is on your mind. This is an opportunity for you, the member, to voice your opinion about the direction of your association. We hope you will be an active participant at this event.

Did you think I was going to leave out the date and location – after all, all I have mentioned so far is the Omni Resort and Orlando, Fla. Okay, begin the process of discussing it with business associates and family, checking schedules and then finally committing to the PDCA 17th Annual International Conference and Expo 2013, which will be held at the

By Stevan A. Hall, Executive Director,
Pile Driving Contractors Association

Knowledge is at the root of many challenges and decisions we face in a given day. Knowledge relates to truth, belief and justification.

Omni Orlando Resort at ChampionsGate (www.omnihotels.com) on April 25-27, 2013.

P.S. –Average temperature in Orlando in late-April is 73.5 F with an average precipitation of less than two inches and 22 days of clear or only partly-cloudy skies with a relative humidity of only 68 percent. So, COME ON DOWN!

Two other quick mentions:

On July 25, 2012, the PDCA Board of Directors took the necessary steps to implement two very important programs as part of PDCA.

The first program is the PDCA Research Foundation. The purpose of the foundation is to promote the benefits of research, identify benefactors of research funding, establish funding programs, identify appropriate collaborators for research, identify and support research initiatives, promote research and disseminate the results that have a positive impact on the pile driving industry, the PDCA member and the association, to public agencies, private owners, engineers, contractors, suppliers and manufacturers, both domestically and internationally.

Currently, an organizational committee has been established to help identify research needs, stakeholders, potential collaborators and define the basic structure of the foundation. The Organizational Committee consists of seven people but could use additional participation by PDCA Contractor and Associate Members. If you are interested in participating, contact me in the PDCA office at 888-311-PDCA (7322) or by email at steve@piledrivers.org.

The second program established by your Board of Directors is the PDCA Scholarship Fund. This program is intended to provide scholarship dollars to candidates who are enrolled in university or college degree programs in construction, construction management or civil, structural or geotechnical engineering or other relevant degree programs to our industry.

Several PDCA Chapters have their own scholarship programs and the board agreed that it was time for PDCA to have a program as well. The initial funding of the program will come from the annual PDCA golf tournament, held at the annual conference each year since 2007. In 2013, the golf tournament at the annual conference will be named the Inaugural PDCA Scholarship Fund Golf Tournament. Other funding mechanisms may include revenue received from the annual conference silent auction. PDCA will discuss opportunities with other chapters who may or may not have scholarship funds on ways they can conduct local events to promote the PDCA Scholarship Fund.

PDCA is seeking volunteers to work on the PDCA Scholarship Fund program. The door is open to all interested, regardless of membership type. If you would like to help, contact me at 888-311-PDCA (7322) or by email at steve@piledrivers.org. ▼


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MEMBERSHIP BENEFITS

The Pile Driving Contractors Association & You

Governance, Board of Directors, Committees and Chapters

PDCA Governance, Committees and Chapters

The PDCA's direction, growth and success is a direct result of an involved membership. The association is directed by a dedicated Executive Committee and Board of Directors, who establish PDCA's short and long-term goals and objectives through a comprehensive Strategic Plan. The Strategic Plan is reviewed and revised each year by the Executive Committee and Board of Directors during the Annual Tactical Meeting.

Implementation of the Strategic Plan Focus and Strategies is a team effort between the Board of Directors, Committees and staff.

Governance

Executive Committee: The Executive Committee consists of the Association's Officers, including the President, Vice President, Secretary, Treasurer and Immediate Past President. The Executive Director serves on the Executive Committee in an Ex-Officio, non-voting capacity.

Board of Directors: The Board of Directors consists of the Association's Officers and nine elected member Directors. Directors can be Contractor, Associate and Engineering Affiliate members.

Committees

PDCA Committees include the following, as well as the function they perform:

Education: Responsible for the development of all educational programs, including annual conference general sessions, seminars and workshops. Responsible for development and maintenance of relations with educational institutions. Responsible for promoting driven pile research and technical papers and the presentation of such information at appropriate venues.

Technical: Responsible for technical information and applications impacting the driven pile and deep foundations industry. Responsible for developing and maintaining relations with public and private entities involved in issues impacting driven pile or deep foundations. Responsible for developing and maintaining PDCA-produced design and installation specification documents.

Communications: Responsible for establishing editorial guidelines, acquisition, assembly and review of all editorial content of *PileDriver* magazine, annual directory and calendar. Responsible for the functionality of the PDCA website and distribution of the PDCA E-Letter.

Membership: Responsible for membership development and member retention and issues impacting the continued growth of the association.

Market Development: Responsible for promoting the different pile types and monitoring trends in the market. Responsible for site selection of the annual conference sites, assembly of social programs for the annual conference and promotion of conferences.

Safety: Responsible for the dissemination of information relevant to safe work practices. Responsible for monitoring and reviewing regulations and legislation impacting the driven pile industry.

Environmental: Responsible for environmental issues related to pile driving, including, but not limited to, noise, vibration, biofuels, brownfield sites and marine life.

PDCA members are encouraged to participate on one or more committees. Participation is voluntary, but committee members are encouraged to participate on a consistent basis.

Those members desiring to serve the association at the Executive Committee and/or Board of Director levels are offered the opportunity as existing members rotate off.

PDCA Chapters

The PDCA encourages the formation of local PDCA Chapters. Local chapters provide regional representation and advocacy for the driven pile industry and those companies doing business within the chapter's jurisdiction.

Chapters also provide an opportunity for its members to network through business meetings, educational programs and social activities.

Current PDCA Chapters include Northeast, Mid-Atlantic, South Carolina, Florida, Gulf Coast and Pacific Coast. As of 2012, Texas is organizing a state chapter.

Education and Networking

PDCA Education: Conferences, Seminars and Workshops

The PDCA offers relevant, topical and cutting-edge educational programs throughout the year.

Annual Conference: The PDCA Annual Conference is held each year, generally in April. This internationally-recognized conference provides a forum for experts from industry, private business, government and academia to discuss key trends and issues within the driven pile industry with those who rely on information and technology to improve their business.

Design and Installation of Cost-Efficient Piles (DICEP): Held each fall since 2000, this exclusive PDCA program presents modern approaches to maximize

Efficiency, Effectiveness and Economy (E_3) of driven piles through a series of engineering focused presentations. DICEP is designed primarily for geotechnical, structural and civil engineers, but presents relevant information for contractors and other firms or individuals who support, conduct business or are associated with the deep foundations, earth retention and/or the driven pile industry.

Professors' Driven Pile Institute (PDPI): This intensive week-long program is designed to instruct engineering educators in all aspects of driven pile installation, design and quality control. This program blends practical, real world construction knowledge with academics. The PDPI has been attended by more than 150 university and college representatives who teach driven pile applications in an academic environment. The program is held at Utah State University every other year and is funded 100 percent by the PDCA and its members.

Deep Foundation Testing and Analysis Seminar and Workshops: The PDCA, in collaboration with Pile Dynamics, Inc. conducts several Deep Foundation Dynamic Testing and Analysis seminars and workshops annually. Each seminar or workshop generally includes information on deep foundation integrity testing, wave equation analysis (GRLWEAP), high strain dynamic foundation testing (PDA and CAPWAP). This course is designed primarily for individuals involved in the design, construction and specification of deep foundations; as well as PDA and CAPWAP users, foundation testing professionals, professors and students already familiar with the basic concepts of deep foundation dynamic testing and analysis.

The PDCA also provides the Dynamic Measurement and Analysis Proficiency Test designed to reflect the user's level of knowledge and ability, which is then indicated in a "Certificate of Proficiency." Individuals who qualify to support dynamic measurement and analysis testing are listed on the PDCA website as a reference for end-users.

Pile Driving Inspectors Course: This one-day course is designed for those who inspect pile-driving operations during construction of foundations and major structures. The course presents information on the inspector's role, hammers and installation equipment, pile types, contractor's submittal and review process, establishing PD criteria, record-keeping and monitoring and common problems. This program is supplemented by state DOT personnel and their local practices in the state in which the program is offered.

Dynamic and Static Pile Load Test Options: This one-day course discusses the benefits of a well thought out, quality load test program to provide an overall economic advantage and provide data to maximize the efficiency and effectiveness of a pile load test schedule. The seminar concludes with presentations by manufacturers of the various dynamic and static pile load testing options available in today's industry.

Driven Pile Load Resistant Factor Design (LRFD) Design and Construction Workshop: The application of the Load Resistant Factor Design (LRFD) platform is now required for use by bridge and structure designers using federal funding. This policy requirement applies to all surface transportation features including bridges, tunnels, earth retaining structures and miscellaneous ancillary structural features. The goal of this workshop is to improve and enhance the competiveness of driven piles by communicating and demonstrating the correct and appropriate application of the current (5th Edition) AASHTO LRFD design and construction specifications for structural and geotechnical limit states.

Joint seminars and cooperative support with other organizations such as the Edmonton Geotechnical Society, the Calgary Geotechnical Society, the GeoInstitute of American Society of Civil Engineers, DFI and ADSC.

Communications, Business Networking and Client Development

Communications

***PileDriver* Magazine:** Produced on a quarterly basis and distributed to over 3,000 subscribers, the magazine provides current industry trends, the latest in technology, case histories and legal topics relevant to the pile driving industry. *PileDriver* also features member "Company Profiles" and company completed projects through "Project Spotlights". The PDCA encourages article submissions and is always at no cost to the author.

www.piledrivers.org: The PDCA website is an expansive resource to anyone seeking information about the PDCA, PDCA members or the pile driving industry in general. The site includes information on the benefits of driven pile, membership (new and renewals), advertising, leadership and committees, chapters, events, publications, gallery, reference links, news and the PDCA Store. Visitors to the site can search for member companies or services and products by State or Region; visitors can also download data on Noise and Vibration and the PDCA Installation Specification for Driven Pile (PDCA Specification 103-07 – Private Work).

E-Letter: The PDCA distributes an electronic newsletter on a monthly basis. The E-Letter is designed to keep you up-to-date on all PDCA upcoming activities and events. It also includes a "Members On the Move" section that reports "press release" type information on PDCA member companies.

Membership Directory: Produced annually, the Membership Directory provides a listing of all PDCA member companies, including the company name, main and optional employee contacts, address, phone, fax, email, website and a description of work performed by the company. Companies can also elect to have their logos included with their company information.

Calendar: Produced annually and distributed in November with pages from December to December, the calendar lists all upcoming PDCA activities that have been scheduled at the time of printing.

Business Networking and Client Development

Membership in the PDCA offers numerous opportunities to conduct business networking and client development at every conference, educational program, committee meeting and social function with individuals who share a common interest – pile driving and the pile driving industry. Networking opportunities exist not only between PDCA member-to-member, but also relationships developed between PDCA and public agencies, such as FHWA, AASHTO, Corps of Engineers and State DOTs. The PDCA also maintains liaisons with other industry associations, working with them on issues of mutual concern.

Whether it is member-to-member or member-to-guest, through conferences, educational programs or committee participation, the opportunity to develop new client relationships is ever-present. The chance to strengthen relationships with old clients or just re-connect with old friends is also part of the PDCA experience. ▼

THE PILE DRIVING CONTRACTORS ASSOCIATION
2012-2013 MEMBERSHIP APPLICATION

PDCA
PILE DRIVING CONTRACTORS ASSOCIATION
"A Driven Pile…Is a Tested Pile!"™

Step 1: Company Information

Company Name: _____

Contact Name: _____

Address: _____

City: _____ State / Province: _____

Zip / Postal Code: _____ Country: _____

Phone: _____ Fax: _____

Company Website: _____ Contact E-mail: _____

Step 2: Select Membership Type - *Check the box that corresponds to your "Membership Type".*

Contractor Member – General or Specialty contractor who commonly installs driven piles for foundations and earth retentions systems.

- ❑ **Contractor I Member Company** – Annual volume > $ 2 million **$850.00**
- ❑ **Contractor II Member Company** – Annual volume < $ 2 million **$425.00**

Associate Member – Firms engaged in the manufacture and/or supply of equipment, materials, or services to PDCA members or the pile driving industry in general.

- ❑ **Associate I Member Company** – Annual volume > $ 2 million **$850.00**
- ❑ **Associate II Member Company** – Annual volume < $ 2 million **$425.00**
- ❑ **Local Associate Member Company** – **$100.00**
  Small Company desiring membership in a single local chapter. A firm that only serves the chapter's geographical area and whose interest is to support the local chapter. Membership must be approved by the PDCA Executive Committee

Engineering Affiliate – Any Engineering company or individual (Structural, Geotechnical, Civil, etc.) involved in the design, consulting, or other engineering aspect associated with driven piles, deep foundations or earth retention systems.

- ❑ **Engineering Affiliate** – *1-5 Offices or an Individual* **$100.00**
  Engineering Affiliates may list up to 5 individuals per office at no additional charge.
- ❑ **Engineering Affiliate** – *6-11 Offices* **$90.00**
  Engineering Affiliates may list up to 5 individuals per office at no additional charge.
- ❑ **Engineering Affiliate** – *12+ Offices* **$80.00**
  Engineering Affiliates may list up to 5 individuals per office at no additional charge.

Individual Member – **$50.00**
Any individual employed full-time by an university or college and teaching Undergraduate or Graduate courses in engineering; or an individual employed full-time by a Government entity.

Retired Industry Member – **$50.00**
Any retired individual who has left active employment and wishes to remain a member. This is a non-voting membership category.

Student Member – **$20.00**
Full-time student enrolled in a Bachelor, Master or Doctoral degree program in construction or engineering at an university or college.

Affiliate Labor Organization Member – **$100.00**
Concerned with pile driving for the purpose of gathering and sharing information. This is a non-voting membership category. Must be approved by the PDCA Executive Committee.

Step 3: Membership Options

❑ **Professor's Driven Pile Institute Contribution** – **$200.00**
Through the PDPI (Professors' Driven Pile Institute), the PDCA provides the nation's leading engineering professors with the expertise to teach engineering students about driven pile advantages. Without question, this program is the standard by which all "teach the teacher" programs are judged and is the best way to ensure the continued progress and strength of our industry for the coming years. The PDCA funds virtually all expenses for the professors, which means a program such as the PDPI is expensive to conduct, but worth every dollar invested. This is a WIN/WIN program. 100% of your contribution goes to help fund this important industry program.

❑ **Optional Employee/Office: Associate & Contractor Members Only (Per Office/Employee Listing)** – **$100.00**
All optional employees/offices receive all of the benefits and services provided to the main contact, including a listing in the annual directory and website.

❑ **Premium Upgrade** – **$225.00**
Your Company Logo and Website linked from your PDCA website Company Profile listing.

❑ **Company Logo on Website Profile** – **$25.00**

Perforated for easy removal.

Step 4: Member Information - *Check only the services/products under the Membership type for which you are applying.*

Contractor Members – check all services that your company provides:

- ❒ Bridge Buildings
- ❒ Bulkheads
- ❒ Deep Dynamic Compaction
- ❒ Deep Excavation
- ❒ Docks and Wharves
- ❒ Earth Retention
- ❒ General Contracting
- ❒ Highway and Heavy Civil
- ❒ Marine
- ❒ Pile Driving
- ❒ List Other Services:

Associate Members – check all products and/or services that your company provides:

- ❒ Air Compressors & Pumps
- ❒ Coatings & Chemicals
- ❒ Consulting
- ❒ Cushions, Hammer
- ❒ Cushions, Pile
- ❒ Cutter Heads & Drill Bits
- ❒ Design
- ❒ Dock & Marine Supplies
- ❒ Drilling Equipment & Supplies
- ❒ Drive Caps & Inserts
- ❒ Equipment Rental
- ❒ Equipment Sales
- ❒ Freight Brokerage
- ❒ Hoses & Fittings
- ❒ Hydraulic Power Packs
- ❒ Leads & Spotters
- ❒ Lubricants & Grease
- ❒ Marine Drayage
- ❒ Marine Equipment
- ❒ Materials Testing
- ❒ Other Structural Materials
- ❒ Pile Hammers
- ❒ Pile Monitoring
- ❒ Pile Points & Splices
- ❒ Piles, Composite
- ❒ Piles, Concrete
- ❒ Piles, Steel H List
- ❒ Piles, Steel Pipe
- ❒ Piles, Synthetic Material
- ❒ Piles, Timber
- ❒ Rigging Supplies
- ❒ Safety Equipment
- ❒ Sheet Piles, Aluminum
- ❒ Sheet Piles, Steel
- ❒ Sheet Piles, Vinyl
- ❒ Structural Steel
- ❒ Surveying
- ❒ Testing
- ❒ Trucking
- ❒ Vibration Monitoring
- ❒ Other Services:

Engineering Affiliate – check all products and/or services that your company provides:

- ❒ Analysis
- ❒ Civil
- ❒ Consulting
- ❒ Geotechnical
- ❒ Surveys
- ❒ Structural
- ❒ List Other Services:

Step 5: Geographic Areas Where Services and Products Are Available – *(Check all that apply)*

❒ All States	❒ AK	❒ AL	❒ AR	❒ AZ	❒ CA	❒ CO	❒ CT	❒ DC
❒ DE	❒ FL	❒ GA	❒ HI	❒ IA	❒ ID	❒ IL	❒ IN	❒ KS
❒ KY	❒ LA	❒ MA	❒ MD	❒ ME	❒ MI	❒ MN	❒ MO	❒ MS
❒ MT	❒ NC	❒ ND	❒ NE	❒ NH	❒ NJ	❒ NM	❒ NV	❒ NY
❒ OH	❒ OK	❒ OR	❒ PA	❒ RI	❒ SC	❒ SD	❒ TN	❒ TX
❒ UT	❒ VA	❒ VT	❒ WA	❒ WI	❒ WV	❒ WY	❒ Canada	❒ Mexico
❒ South America		❒ Europe	❒ Asia	❒ Other				

Step 6: Payment

Membership Type	$ _____
PDPI Contribution	$ _____
Optional Employee/Office	$ _____
Membership Upgrades	$ _____
TOTAL:	**$** _____

Type of Payment

I am making payment in full by: ❒ Check ❒ Visa ❒ MasterCard ❒ American Express ❒ Discover

Card Number: _____ Expiration Date: _____

Name on Card: _____ CVV Code: _____

Statement Billing Address: _____

Signature: _____

Please complete this application and mail to:
PDCA – 1857 Wells Road - Suite 6, Orange Park, Florida 32073 or Fax to: 904-215-2977

Did You Know?

The pros and cons of using test piles as production piles

Using probe and test piles as production piles is the normal practice within the industry. There are several reasons for using test piles as production piles in a foundation system and very few reasons not to.

Some of the reasons to use test piles as production piles include the following:

- If you use test piles as production piles, you have an economic advantage because ultimately you use fewer piles and, therefore, lower your material costs for a particular project
- If the test piles reach or surpass the engineer's criteria for design loads, they should be satisfactory for production piles. If they hold a lower load, they can still be utilized.

A reason not to use test piles as production piles could include the following:

- If the pile is damaged during lateral testing

Other considerations include:

- If using a PSPC concrete pile as the test pile in a production pile location, order a long length in case the pile does not achieve the required load, in which case you can continue driving; steel can be added on by welding additional lengths
- Drive several probe piles in permanent locations and then test the pile with the least number of total hammer blows or with the lowest final blow count

In conclusion, there are valid reasons to use test piles as production piles, given the right circumstances. ▼

PilePro

The World Leader in Sheet Piling Connections

1.866.666.7453
PilePro.com

PilePro® manufactures corners and connectors for all types of sheet pile used around the world. The connectors are made to highly stringent standards that form precise, seamless connections between steel sheet pile and other support systems, such as H-Beam, I-Beam and Pipes/Tubes.

These connectors are often modular in nature and come to the contractor or end user as a “ready-to-install” component. In addition to ready stock in our main markets, PilePro® also offers specialty made-to-order connectors that form high value engineering solutions.

PilePro® connectors have effectively rendered fabricating corners and other connection processes in steel piling construction projects a relic of the past.

PilePro® connectors are rapidly emerging as the “go to” product in port, cofferdam and other construction projects around the world.

Reliable

- PilePro® corner connectors offer a one-piece construction that does not rely on a single vertical weld seam. There is never a risk of “unzipping” at the corner or junction pile.
- PilePro® connectors are interlocked and attached to the sheet piling; thus, single unit integrity of the steel wall unit is always maintained.
- Durability: The risk of Preferential weld corrosion that is common with fabricated connectors is eliminated with PilePro’s extruded shapes.

Flexible

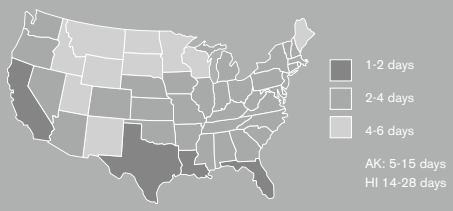
- Design: Superior design means PilePro® connectors have greater flexibility within the interlock – typically a 20° to 30° of swing versus the 2° to 5° of swing found in most sheet pile interlocks.
- Less expense: PilePro® connectors provide superior cornering and connection solutions on a Customary Quick Delivery (CQD) basis through an efficient logistics network. Through this network, products may be delivered directly to the job site.

Fast

- Easy transport: PilePro® connectors are easily and efficiently transported with minimal risk of damage. Contrast that, with fabricated corners that cost more, weigh more and are prone to handling damage.
- No delay: PilePro® connectors enable the user to immediately build sheet wall configurations without the traditional fabrication process.
- Less inventory: PilePro® maintains a large stock of connectors thus eliminating the need for large standing inventories.
- PilePro® connectors are easier to drive and extract so that construction time is reduced.

Most PilePro® products are available immediately for delivery to your project site.

Some restrictions apply



Simplify the way you research, specify, and buy steel sheet piling.

Search by section modulus, brand, and type. ➔ **Compare** over 180,000+ sheet pile combinations. ➔ **Estimate and calculate** with online tools. ➔ **Leverage** the web's best sheet pile database. ➔ **Specify** the most efficient solution. ➔ **Price and buy** the most economical choice.

iSheetPile
A **PilePro** Company

iSheetPile.com
info@isheetpile.com
+1-866-671-7453

Upload your project details for a free evaluation.

iSheetPile Webinar Series:
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Register at isheetpile.com/webinars

2012 New **PDCA Members**

The following is a complete list of all members who joined PDCA so far in 2012. The association welcomes everyone on the list!

Contractors

Agra Foundations
Derek Harris
101-12391 Horseshoe Way
Richmond, BC V7C 5S1
Phone: 604-270-1115
Fax: 604-241-7051
www.agra.com

C D Perry & Sons Inc.
J.V. Ryan
P.O. Box 866
Foot of Monroe Street
Troy, NY 12181
Phone: 518-272-0831
Fax: 518-874-2019
www.cdperryandsons.com

Desert Deep Foundations
Eric Hendricksen
393 South 2650 West
Salt Lake City, UT 84104
Phone: 801-381-5088
Fax: 801-282-0099
www.desertdeepfoundations.com

Facchina Construction Company Inc.
Gary Fry
102 Centennial Street, Suite 201
La Plata, MD 20646
Phone: 703-495-8111
Fax: 703-495-8121
www.facchina.com

Group Contractors, LLC
Kevin Gourgues
15055 Jefferson Highway
Baton Rouge, LA 70817
Phone: 225-752-2500
Fax: 225-752-2552
www.groupcontractors.com

Associates

Canadian Pile Driving Equipment, Inc.
Bruce Patterson
3801-53 Avenue
Red Deer, AB T4L 2L6
Phone: 888-466-4116
Fax: 888-407-7309
www.canadianpile.com

Creative Pultrusions
Dustin Troutman
214 Industrial Lane
Alum Bank, PA 15521
Phone: 814-839-4186
Fax: 814-839-4276

Gerdau – Texas
Andrew Verity
300 Ward Road
Midlothian, TX 76065
Phone: 214-463-7467
Fax: 972-446-1944

National Pipe and Piling
Troy Adams
2044 6th Avenue
Tacoma, WA 98403
Phone: 253-274-9800
Fax: 253-627-7473
www.natpipe.com

Northwest Pipe Company – Washington
Miranda Bergeron
5721 South East Columbia Way, Suite 200
Vancouver, WA 98661
Phone: 360-397-6339
Fax: 360-397-6257
www.nwpipe.com

Nova Group, Inc.
Russ Barns
P.O. Box 4050
Napa, CA 94558
Phone: 707-265-1100
Fax: 707-265-1199
www.novagrp.com

Reeve Trucking Co., Inc.
Doug Ottis
P.O. Box 5126
Stockton, CA 95205
Phone: 209-948-4061
www.reevetrucking.com

Smart Structures
Richard Hecht
324 2nd Street Pike
Southampton, PA 18966
Phone: 267-983-6106
Fax: 267-983-6106
www.smartpile.com

Associates II

Angbai Trading (Shanghai) Co., Ltd.
Hoffman Fang
1068 Wuzhong Road
Shanghai, 201103
www.sinosteeltube.com

Construction e Link, Inc.
Kevin Lathan, P.E.
P.O. Box 3175
Clearwater, FL 33767
Phone: 727-449-2100
Fax: 208-446-7756
www.constructionlink.com

CZM Foundation Equipment
Barrett Rahn
P.O. Box 126
Savannah, GA 31402
Phone: 912-401-5903
Fax: 912-966-5984
www.czm-us.com

Kokosing Construction Company
Mike Schmeltzer
958 North Huron Street
Cheboygan, MI 49721
Phone: 231-627-5633
Fax: 231-627-2624
www.kokosign.biz

Lane Enterprises, Inc.
Gene Anderson
1244 Claremont Road
Carlisle, PA 17015
Phone: 717-448-7956
Fax: 610-926-7856
www.lanecoatings.com

Power Engineering Construction Co.
Mike David
1501 Viking Street, Suite 200
Alameda, CA 94501
Phone: 510-337-3800

Power Lift Foundation Repair, Inc.
Bill McCown
304 Progress
Sherman, TX 75092
Phone: 903-893-2393
Fax: 903-893-2672

Saddlebrook Construction, Inc.
Don White
P.O. Box 216
Pickens, SC 29671
Phone: 864-898-1533
Fax: 864-898-0763
www.saddlebrookconstruction.com

Sea & Shore Contracting
Michael Lally
11 Randolph Road
Randolph, MA 02368
Phone: 781-767-0090
Fax: 781-767-0095
www.seaandshorecontracting.com

T.L. Wallace Construction, Inc.
Dwight Paschal
P.O. Box 523
Columbia, MS 39429
Phone: 601-736-4525
Fax: 601-736-3401

Engineering Affiliates

ANS Consultants, Inc.
Shah Atulkumar
4405 South Clinton Avenue
South Plainfield, NJ 07080
Phone: 908-754-8383
Fax: 908-754-8633
www.ansconsultants.net

Vikas Sharma
Phone: 908-754-8383
Fax: 908-754-8633

Dhimant Shah
Phone: 908-754-8383
Fax: 908-754-8633

John Gomez
Phone: 908-754-8383
Fax: 908-754-8633

Vatsal Shah
Phone: 908-754-8383
Fax: 908-754-8383

Bellingham Marine
Roxie Comstock
1323 Lincoln Street
Bellingham, WA 98229
Phone: 360-676-2800
Fax: 360-734-2417
www.bellingham-marine.com

D.W. Kozera, Inc.
David Kozera
1408 Bare Hill Road
Baltimore, MD 21209
Phone: 410-823-1060
Fax: 410-823-1062
www.dwkozerainc.com

Dan Brown & Associates, PC
D. Michael Holloway
5 Del Valle
Orinda, CA 94563
Phone: 925-765-0607
www.danbrownandassociates.com

Duffield Associates, Inc.
Dave Charles
5400 Limestone Road
Wilmington, DE 19808
Phone: 302-239-6634

Fugro Consultants, Inc. – Loadtest, Baton Rouge
Brenda Novoa
4233 Rhoda Drive
Baton Rouge, LA 70816
Phone: 225-292-5084
Fax: 225-292-8084
www.loadtest.com

George Perkins
Phone: 225-292-5084
Fax: 225-292-8084

Jennifer Aguettant
Phone: 225-292-5084
Fax: 225-292-8084

Fugro Consultants, Inc. – Loadtest, Kenner
Michael Alfortish
15 Veterans Memorial Boulevard
Kenner, LA 70062
Phone: 504-464-5355
Fax: 504-464-5357
www.loadtest.com

Ronald Hodges
Phone: 504-464-5355
Fax: 504-464-5357

Gannett Fleming, Inc.
Dave Scherer
207 Senate Avenue
Camp Hill, PA 17011
Phone: 717-763-7212
Fax: 717-303-0346
www.gfnet.com

Geosyntec Consultants
Terence Holman
1420 Kensington Road, Suite 103
Oak Brook, IL 60523
Phone: 630-203-3349
Fax: 630-203-3341
www.geosyntec.com

Gerhart Cole, Inc.
Corbett Hansen
668 East 12225 South, Suite 203
Draper, UT 84020
Phone: 801-849-0055
Fax: 801-555-1212
www.gerhartcole.com

GRL Engineering, Inc. – California
Camilo Alvarez
516 Crane Boulevard
Los Angeles, CA 90065
Phone: 323-441-0965
Fax: 323-441-0975
www.pile.com

GRL Engineering, Inc. – Colorado
Anna Klesney
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Lakewood, CO 80226
Phone: 303-666-6127
Fax: 303-666-6447
www.pile.com

GRL Engineering, Inc. – Florida
Mohamad Hussein
8000 South Orange Avenue, Suite 225
Orlando, FL 32809
Phone: 407-826-9539
Fax: 407-826-4747
www.pile.com

GRL Engineering, Inc. – Illinois
Pat Hannigan
1540 East Dundee Road, Suite 108
Palatine, IL 60074
Phone: 847-221-2750
Fax: 847-221-2752
www.pile.com

GRL Engineering, Inc. – Louisiana
Matt Nagy
2931 Layton Lane
Slidell, LA 70458
Phone: 216-978-7793
Fax: 216-831-0916
www.pile.com

GRL Engineering, Inc. – North Carolina
Scott Webster
9912 Colvard Circle
Charlotte, NC 28269
Phone: 704-593-0992
Fax: 704-593-0993
www.pile.com

GRL Engineering, Inc. – Ohio
Frank Rausche
30725 Aurora Road
Cleveland, OH 44139
Phone: 216-831-6131
Fax: 216-831-0916
www.pile.com

JZN Engineering, PC.
Nejm E. Jundi, P.E.
51 Swing Bridge Lane
South Bound Brook, NJ 08880
Phone: 732-369-6270
Fax: 732-412-9343
www.jznengineering.com

Kier & Wright Civil Engineers & Surveyors, Inc.
Tony McCants
2850 Collier Canyon Road
Livermore, CA 94551
Phone: 925-245-8788
Fax: 925-245-8796
www.kierwright.com

KPFF Consulting Engineers
Tommy Howard
101 Steward Street, Suite 400
Seattle, WA 98101
Phone: 206-382-0600
Fax: 206-382-0500

McCleary Engineering
Terry McCleary
3705 Progress Boulevard
Peru, IL 61354
Phone: 815-780-8486
www.mcclearyengineering.com

Mueser Rutledge Consulting Engineers
Walter E. Kaeck, P.E.
14 Penn Plaza 225 West 34th Street
New York, NY 10122
Phone: 917-339-9300
Fax: 917-339-9400
www.mrce.com

Alfred H. Brand, P.E.
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Fax: 917-339-9400

Francis J. Arland, P.E.
Phone: 917-339-9310
Fax: 917-339-9400

James L. Kaufman, P.E.
Phone: 917-339-9310
Fax: 917-339-9400

David R. Good, P.E.
Phone: 917-339-9310
Fax: 917-339-9400

Russell & Russell, LLC
Kimberly Russell
2766 Bruce Street
Matlacha, FL 33993
Phone: 239-440-2114
Fax: 866-416-0009

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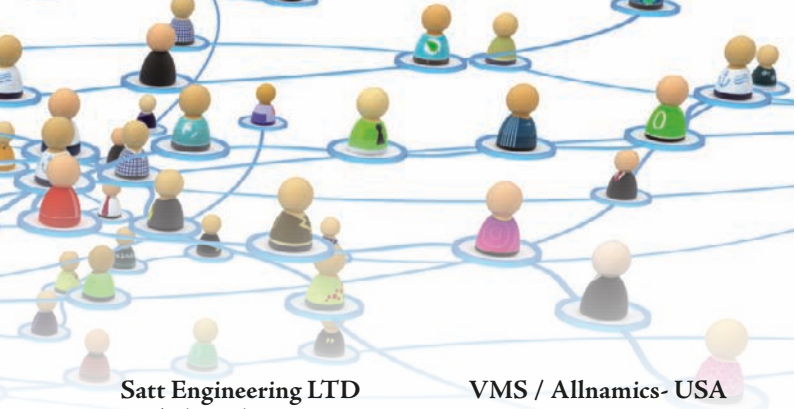

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Snehal Patel
1520-37 C Avenue Northwest
Edmonton, AB T6T 0E1
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Fax: 780-218-3896
www.sattengg.com

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Fax: 720-258-4122

Justin Crummett
Phone: 720-258-4100
Fax: 720-258-4122

Mark Vessely
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Fax: 720-258-4122

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Phone: 206-695-8020
Fax: 206-695-6777
www.shannonwilson.com

Hisham Sarieddine
Phone: 206-695-8020
Fax: 206-695-6777

Martin Page
Phone: 206-695-8020
Fax: 206-695-6777

Thomas Gurtowski
Phone: 206-695-8020
Fax: 206-695-6777

VMS / Allnamics- USA
Eric Baziw
1411 Cumberland Road
Tyler, TX 75703
Phone: 903-939-1168

Affiliate Labor Organization

BTC Transport Systems, Inc.
Damian Rodriguez
3808 Southwest 10th Place
Cape Coral, FL 33914
Phone: 201-344-0442
Fax: 239-945-1200
www.btctransportation.com

Individual

The Citadel
Timothy Mays, PhD, P.E.
Department of Civil Engineering: 302 LeTellier Hall, The Citadel, 171 Moultrie Street
Charleston, SC 29409
Phone: 843-953-7678

Dennis Fallon, PhD, P.E.
Phone: 843-953-5454

Keith Plemmons, PhD
Phone: 843-953-7677

Ronald W. Welch, PhD, P.E., COL
Phone: 843-953-6588

Retired

G A Platt Consulting, LLC
Gary Platt
1 Bayview Terrace
Green Brook, NJ 08812
Phone: 908-419-1303
Fax: 908-757-7679

Loftus Contracting Corp.
Michael Loftus
34 Fuskie Lane
Daufuskie Island, SC 29915
Phone: 203-810-8115

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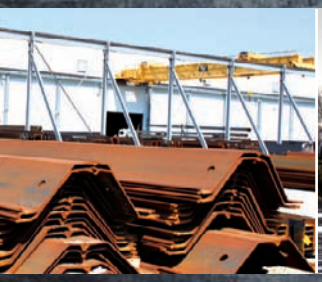


TRIAD
PILING PRODUCTS

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Updates to Your PDCA **Membership Directory**

A number of companies joined PDCA after the deadline for our annual PDCA Membership Directory had passed. Please add these companies to your directory listings.

Contractors

Agra Foundations Ltd.
Derek Harris
101-12391 Horseshoe Way
Richmond, BC V7C 5S1
Phone: 604-270-1115
Fax: 604-241-7051
derek.harris@agra.com
Compact Piles, Wick Drain, Vibro Work
All States, Canada, Europe, Asia, South America

Kokosing Construction Company
Mike Schmeltzer
958 North Huron Street
Cheboygan, MI 49721
Phone: 231-627-5633
Fax: 231-627-2624
mschmeltzer@kokosing.biz
Bulkheads, Bridge Building, Marine, Pile Driving
MI, OH, WV

Leware Construction Company of Florida, Inc.
Keith Waugh
925 Thomas Avenue
Leesburg, FL 34748
Phone: 352-787-1616
Fax: 352-787-3161
www.lewarecc.com
kwaugh@lewarecc.com
Bridge Building, Bulkheads, Earth Retention, General Contractor, Highway General Civil, Marine, Pile Driving
FL

Pile Installation Consultant, LLC
Henry Whitty
19-1 Chamale Cove East
Slidell, LA 70460
Phone: 504-214-8199
Fax: 985-649-7955
pichenrywhitty@yahoo.com
Pile Driving, Concrete Piles
LA

Power Lift Foundation Repair, Inc.
Bill McCown
304 Progress Street
Sherman, TX 75092
Phone: 903-893-2393
Fax: 903-893-2672
wbm@plfrinc.com
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All States

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Dave Harper
P.O. Box 16612
Tampa, FL 33687
Phone: 813-984-7453
Fax: 813-899-1105
www.precastpiling.com
dave@precastpiling.com
Pile Driving
FL

Williams Bros.
James Pitcock, Jr.
P.O. Box 66428
Houston, TX 77266
Phone: 713-522-9821
dpitcock@wbctx.com
Bridge Building, Pile Driving
TX

Associates

Angbai Trading Co., Ltd.
Hoffman Fang
1068 Wuzhong Road
Shanghai, 201103
Phone: 86-138-4858-5282
Fax: 86-21-6090-0838
metalsintl@yahoo.com
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International

American Piledriving Equipment Inc.
Dan Collins
7032 South 196th Street
Kent, WA 98032
Phone: 253-872-0141
Fax: 253-872-8710
danc@apevibro.com
Sales, Rental & Manufacturer of Pile Driving Equipment
All States

Cahaba Timber Co.
Phil Myers
P.O. Box 160
Briefield, AL 35035
Phone: 205-926-6271
pmyers@nwpoles.com

Canadian Pile Driving Equipment, Inc.
Bruce Patterson
3801-53 Avenue
Red Deer, AB T4L 2L6
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Fax: 888-407-7309
bruce@canadianpile.com
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Fax: 814-839-4276
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All States

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Bobby Chalfa, Jr.
488 Paul Avenue
St. Louis, MO 63135
Phone: 800-325-7909
Fax: 314-524-3110
bobby.chalfa@edgenmurray.com

Greg Briskovich
Phone: 800-325-7909
Fax: 314-524-3110
greg.briskovich@edgenmurray.com

Lane Enterprises, Inc.
Gene Anderson
1244 Claremont Road
Carlisle, PA 17015
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Fax: 610-926-7856
www.lanecoatings.com
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Troy Adams
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Tacoma, WA 98403
Phone: 253-274-9800
Fax: 253-627-7473
www.natpipe.com
tadams@natpipe.com
Steel H Piles, Steel Pipe Piles, Steel Sheet Piles
AK, CA, CO, ID, MT, OR, UT, WA

Engineers

Berenyi, Inc.
Tony Berenyi
49 Immigration Street, Suite 201
Charleston, SC 29403
Phone: 843-284-2000
Fax: 843284-2001
tberenyi@berenyi.com

Birdsall Services Group – LGA Engineering, Inc.
Timothy Rioux
2100 Highway 35 Sea Girt Square Building 28
Sea Girt, NJ 08750
Phone: 7329612162
Fax: 732-961-2163
trioux@birdsall.com

Coastal Engineering and Testing Co, Inc.
Michael Allen
1279 Remount Road
North Charleston, SC 29406
Phone: 843-566-1264
mallen@coastalengineering.net

D.W. Kozera, Inc.
David Kozera
1408 Bare Hill Road
Baltimore, MD 21209
Phone: 410-823-1060
Fax: 410-823-1062
dkozera@dwkozera.com
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Phone: 925-765-0607
www.danbrownandassociates.com
rthompson@danbrownandassociates.com
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All States

D. Michael Holloway
Phone: 925-765-0607
mholloway@danbrownandassociates.com

Dente Engineering, P.C.
Fred Dente
6 Bradford Drive
Saratoga Springs, NY 12866
Phone: 518-587-2295
fdente1@aol.com

Duffield Assoicates, Inc.
Dave Charles
5400 Limestone Road
Wilmington, DE 19808
Phone: 302-239-6634
Fax: 302-239-8485
dcharles@duffnet.com
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EXP Services
Steve Cheng
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Brampton, ON L6T 4V1
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Fax: 905-793-0641
stephen.cheng@trow.com
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International

McCleary Engineering
Terry McCleary
3705 Progress Boulevard
Peru, IL 61354
Phone: 815-780-8486
terry@mcclearyengineering.com
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GA, IA, IL, IN, OK, WI,

Mueser Rutledge Consulting Engineers
Walter E. Kaeck, P.E.
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farland@mrce.com

James L. Kaufman, P.E.
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Fax: 917-339-9400
jkaufman@mrce.com

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Chris Souder
1470 Vallombrosa Avenue
Chico, CA 95926
Phone: 530-518-2656
csouder@csuchico.edu

Affiliate Labor Organization

BTC Transport Systems, Inc.
Damian Rodriguez
3808 Southwest 10th Place
Cape Coral, FL 33914
Phone: 201-344-0442
Fax: 239-945-1200
damian1474@yahoo.com
Transportation
All States

In Memoriam

Honoring long-time PDCA member Doug Scaggs

By Van Hogan

The Pile Driving Contractors Association (PDCA) and the driven pile industry have lost a friend. On Friday, June 8, Doug Scaggs lost his battle with cancer and passed away at the age of 65.

Doug was born in Odessa, Texas. He graduated from Texas Tech University with a BBA in Marketing. He worked for many years in the driven pile industry, most recently for Menck Gmbh. In the spring of 2001, the PDCA sent out a request for volunteers. Doug, Garland Likins and I answered that call and were assigned to the Communications Committee. In June of that year, we all assembled in Denver, Colo. to establish our committee's guidelines and objectives. None of us had any particular notion of what we were getting into but we dove in nonetheless. Our conversations that weekend laid the groundwork for *PileDriver* and the PDCA website.

That first meeting led to many others over the years as we discussed various aspects of the magazine, website features and a variety of other topics not necessarily related to the industry.

Doug was a loyal committee member and a great companion at our annual meetings. He was a faithful supporter of PDCA and our industry. Doug loved music. He played the trombone in high school, at Texas Tech and in various church bands. He also loved to play tennis. Doug had a great sense of humor and always took things in stride. He found the joy in life.

He is survived by his wife of 42 years, Claudia and two sons, Kurt and Todd.

Doug was a good friend and a true gentleman. He will be missed. ▼

Photographer: Jupiterimages / Photoss.com

Steve Whitty Jr. Steps Down from Committee but Not the Pile Driving Industry

Hopes to pass long history of service to the next generation

Steve Whitty, Jr. has chosen to lessen his role within the Communications Committee for the Pile Driving Contractors Association (PDCA). Whitty has served, for many years, the piling and deep foundation industry with dedication and commitment. He has contributed to the implementation and great progression of PDCA through many roles including leading the Communications Committee.

Whitty began his service as a member of the Deep Foundation Institute (DFI), serving as Chair of the Equipment Applications Committee for the organization. In April 1996, Whitty accepted an invitation from a professional management firm to become an associate and charter member for the newly-formed PDCA, based in St. Louis, Mo. Later that same year, Whitty was appointed Chair of the Technical Activities Committee, an umbrella committee which had subcommittees of codes, communications, sheeting, safety and several others. He remained very active with these committees and spent the next few years dedicating much attention to the Code Committee, which was working on the first edition of the PDCA model code. The new model code was the hot topic of discussion at the first round table held in New Orleans, La. in 1997. After considerable deliberation over this controversial subject of safety and factors proposed in it, members decided to proceed with the code as the committee had envisioned. The code was finally finished and published in 1999.

Another project that was initiated with the help of Whitty was the Driven Pile CD Program. The intent of the videos was to educate engineering and construction management students in university with an instructional video of pile driving practices and other instructional pieces promoting driven piles. The CD was published in 2003 and has since been educating the future of the pile driving industry. Whitty went on to serve on the Board for the Round Table through his

retirement from that board in 2005.

In the years to follow, Whitty continued his great commitment and dedication with revisions to the PDCA Code and implementation of other materials such as the Foreman's Guide and multi-media projects to serve as an educational model for Pile Driving Practices. As PDCA progressed through the next few years, the Code Committee became independent with Whitty being appointed to chair the newly-established Public Relations Committee, which went on to become the Communications Committee.

During his years of dedication, Whitty saw the expansion of PDCA to include more area chapters, some of which include South Carolina and the Gulf Coast. He was a major contributor to the development of the Gulf Coast Chapter in 2006 and remained very active with the chapter through 2010. During this time he worked on several impressive projects in collaboration with Louisiana State University and local geotechnical engineers.

After many years of dedication and achievement in the implementation and progression of PDCA, including several years of involvement with the Communications Committee, Whitty has decided to retire. His wish is to afford the opportunity for some of the younger national members to have a chance to serve the organization. Whitty, who remains in his role at Specialty Piling Systems, Inc. in Slidell, La., concludes, "This is not my farewell. I hope to be involved in the industry for many years to come."

"We are most grateful to Steve for all of his time and service and for guiding us as we continue to grow our membership and the magazine," Pollyanna Cunningham, a National Board Member and Chair of the Communications Committee, states. "We wish him well and hope he jumps in from time to time to make sure we are staying on track!" ▼

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The Future of the Pile Driving Industry

PDCA Member News

Atlas Tube, a division of JMC Steel Group, has launched a new website for its line of ERW straight seam pipe piling products, www.atlaspipepiles.com.

According to Chris Ragan, product manager of pipe piling at Atlas Tube, "This website was designed as a market resource to offer our stocking partners and customers valuable information on our product lines. With insight from engineers, project managers, contractors and sub-contractors, the site delivers a wealth of knowledge for customers at different levels to learn more about Atlas Pipe Piles, key applications and our value-added services."

Started just eight years ago, the Atlas Pipe Piles Division is North America's leading producer of straight-seam ERW pipe piling for geotechnical and deep foundation projects below 20 NPS.

The new website includes a variety of features, including Products: With diameters from 2.375 to 20,000 NPS and lengths from 20 to 105 feet, Atlas Pipe Piles are found in bridges and structures of all kinds — public and private. Detailed specifications are available for the Atlas line of pin piles, micro piles, standard pipe piles and mini caissons; Projects: Atlas pipe piling has been used for deep foundation projects across North America and overseas. Case studies highlight specific projects and the solutions provided by Atlas Tube; Resources: White papers, loading patterns, material test reports data and more are easily accessible to visitors; Capabilities: A comprehensive listing of Atlas value-added services, rolling cycles and certifications is available on the site.

"This new website also makes clear that all Atlas pipe piling products meet the stringent 'Made-in-America' requirements under the ARRA," said Ragan. "It's a critical requirement for both partners and prospects."

Dan Brown and Associates, PC announced that Barry J. Meyer, P.E., has joined the firm as a senior principal. Meyer is a recognized expert in the design and construction of deep foundations. His over-30 years of geotechnical engineering experience includes time at McClelland Engineers in Houston, Texas where he designed large diameter high-capacity driven piles for major offshore structures and developed subsea geotechnical instrumentation. Meyer applied that knowledge at Marathon Oil Company where he was part of the team that installed the Steelhead Oil Production Platform in Cook Inlet, Alaska. This challenging project required the installation of driven and drilled pipe piles into dense glacial till.

After his time in Texas, Meyer served in various engineering roles at Leighton and Associates and at Law Engineering in California, before joining HDR in their Tampa, Fla. office. Meyer was also innovative in the use of the Osterberg O-Cell as part of the repair of the Los Angeles Coliseum after the devastating Northridge earthquake.

Meyer has worked on numerous international projects in a variety of capacities including, the Confederate Bridge connecting New Brunswick to Prince Edward Island over the ice-filled Northumberland Straits, the 55-kilometers elevated Bang Na Expressway Project in Bangkok, Thailand and the Puente de la Unidad cable-stayed bridge over the Santa Catarina River, Monterey, Mexico. He also has considerable seismic engineering experience and has designed and constructed flood protection levee systems and water storage reservoirs.

Meyer will be based in the Tampa, Fla. area. He can be reached by e-mail at bmeyer@danbrownandassociates.com. For more information on Dan Brown and Associates, visit their blog at http://danbrownandassociates.com.

ICE® – International Construction Equipment, Inc. has expanded with locations in Texas, Virginia, Louisiana and California.

ICE® Katy, Texas

International Construction Equipment, Inc. has announced their new location at 30095, Hwy 90, Katy, TX 77493. ICE® has repeat customers in the lower mid-west region and currently has a range of equipment in use on multiple projects throughout this area. These customers come back to ICE® to purchase equipment or for repeat rental service of equipment to use on a long-term basis.

This new facility in Texas gives ICE® the opportunity to continue offering customized quality service to their clients. Having additional equipment available at multiple regional branches is one of the easiest ways to offer optimal support to customers. With the high demand for ICE® equipment and increased construction on the gulf coast, it makes sense that ICE® would expand with a new location in Katy, Texas in order to be in closer proximity to these customers, therefore allowing the company to continue offering the quality service they are known for.

ICE® Chesapeake, Va.

The company is expanding with a new location at 1729 West Road, Chesapeake, VA 23323.

There are some large development projects in the mid-Atlantic region as the U.S. economy begins to recover, allowing for upgrades of infrastructure for roadways. Some upgrades already in the works include the $2.1-billion Downtown Midtown Tunnel Martin Luther King (MLK) Extension and the $215.8-million Bonner Bridge Replacement, set to begin in fall 2012.

"In the past our equipment came from our Maryland location," said Mike Robinson, mid-Atlantic sales representative for ICE®. "Our new location in Virginia will help us to have our equipment more readily available for our clients working on existing and future projects in the mid-Atlantic region."

ICE® Belle Chasse, La.

From their newly-expanded branch location at 412 Harvey Boulevard, Belle Chasse, LA 70037, ICE® continues to meet the needs of contractors in the Gulf Shores area.

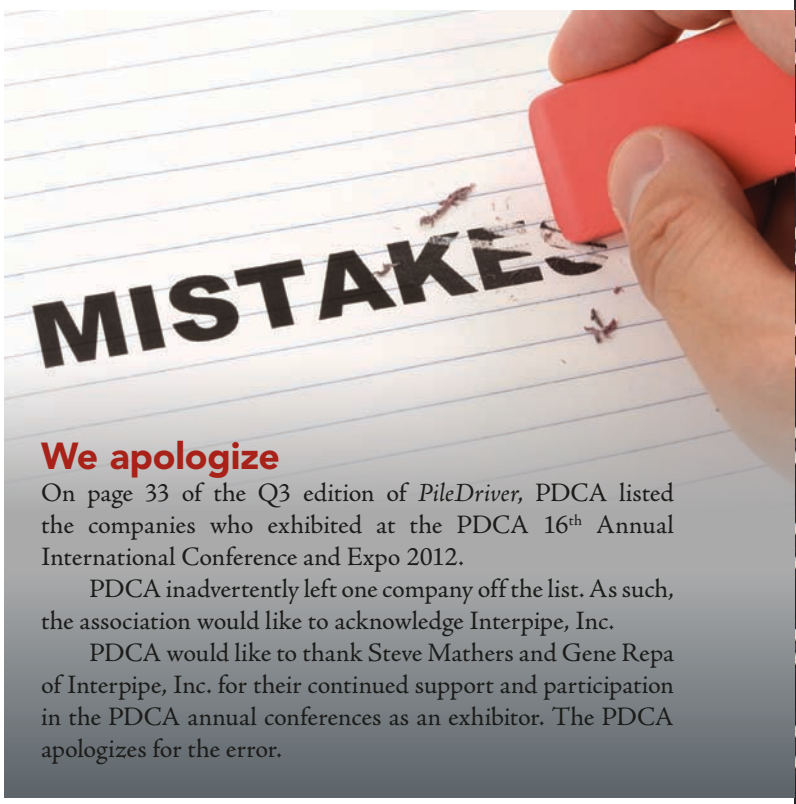
Christian Cunningham, ICE® operations manager, explains the expansion to Belle Chasse by saying, "We are always looking for new and better ways to assist our clients. One of the easiest ways to help customers gain improved support from our regional branch locations is to make more equipment available for rent. When we increase available equipment, we also require expansion of our location to enable our team to perform tests and maintenance on this extended amount of equipment. Our goal is to ensure when the rental unit goes to a new job site is has already been tested and is ready to perform the necessary task at hand–saving our customer time and money."

ICE®'s Regional Manager for Louisiana Bill Spatz, explains, "We chose this location in Belle Chase, La., based on our customers' demands and the increased construction on the Gulf Coast. This latest expansion allows us to be in closer proximity to major access roads, while continuing to meet the needs of customers unique job challenges presented with each project."

ICE® Pomona, Calif.

This new ICE® location in California accommodates the growth of the regional area to best assist their clients.

The new location at 2654 Pomona Boulevard, Pomona, CA 91768 opened its doors in May 2012. ICE®'s expansion to include the California location allows for the accommodation of clients in the Western region of the U.S. on the Pacific Coast for waterfront projects and upgrades of infrastructure for roadways. ▼



We apologize

On page 33 of the Q3 edition of *PileDriver*, PDCA listed the companies who exhibited at the PDCA 16th Annual International Conference and Expo 2012.

PDCA inadvertently left one company off the list. As such, the association would like to acknowledge Interpipe, Inc.

PDCA would like to thank Steve Mathers and Gene Repa of Interpipe, Inc. for their continued support and participation in the PDCA annual conferences as an exhibitor. The PDCA apologizes for the error.

Photographer: Feng Yu / Photos.com

Mark Your Calendar!

Upcoming PDCA events and conferences for 2012-13

PDCA has many events and conferences planned in the upcoming year. To allow members enough time to plan to attend, here are confirmed dates, locations and times. Please note all meetings, dates and times listed are subject to change. Visit the PDCA website at www.piledrivers.org for the latest updates and information.

DECEMBER 2012			
4	PDCA of South Carolina Chapter	Dinner Meeting – Charleston, SC	6:30 PM EST
7	PDCA of the Pacific Coast Chapter	Annual Luncheon – Richmond, CA	12:00 PM PST
13	PDCA Education Committee Meeting	Conference Call	11:00 AM EST
JANUARY 2013			
24-25	PDCA Board of Directors Tactical Meeting	New Orleans, LA	7:30 AM CST
FEBRUARY 2013			
20	Executive Committee Meeting	Conference Call	11:00 AM EST
25-27	Deep Foundation Dynamic Testing and Analysis Workshop	New Orleans, LA	
MARCH 2013			
6	PDCA Board of Directors Meeting	Conference Call	11:00 AM EST
11	Driven Deep Foundations LRFD Workshop	Milwaukee, WI	
APRIL 2013			
24	PDCA Executive Committee Meeting	Omni Hotel and Resort, Orlando, FL	4:00 PM EDT
25	PDCA Board of Directors Meeting	Omni Hotel and Resort, Orlando, FL	8:00 AM EDT
25-27	17th Annual International Conference and Expo	Omni Hotel and Resort, Orlando, FL	
MAY 2013			
15-17	Deep Foundation Dynamic Testing and Analysis Workshop	San Francisco Bay Area	
JUNE 2013			
13	Pile Driving Inspectors Course	Vancouver, BC	
24-28	Professors' Driven Pile Institute	Utah State University, Logan, UT	
JULY 2013			
10	PDCA Executive Committee Meeting	Conference Call	11:00 AM EDT
24	PDCA Board of Directors Meeting	Conference Call	11:00 AM EDT
SEPTEMBER 2013			
12	Driven Deep Foundations LRFD Workshop – South Carolina	Atlanta, GA	
OCTOBER 2013			
9	PDCA Executive Committee Meeting	Conference Call	11:00 AM EST
23	PDCA Board of Directors Meeting	Houston, TX	4:00 PM CST
24	14th Annual DICEP Conference	Houston, TX	7:30 AM CST
DECEMBER 2013			
6	PDCA of the Pacific Coast Chapter Luncheon	Hotel Mac, Richmond, CA	12:00 PM PST

PDCA Pacific Coast

2012 Scholarship Awards Presentation

Pacific Coast Chapter held its Scholarship Awards Presentation at the Dead Fish Restaurant in Crockett, Calif., on August 10, 2012.

A total of $6,000 in gifts and scholarships are made available through monies raised at the Pacific Coast Chapter's Annual Holiday Luncheon and Annual Sporting Clay Tournament.

Board Members present:
Dermot Fallon
Mark Weisz
Crandall and Elizabeth Bates
Doug Ollis
Paul Whitworth

Guests present:
Don and Mary Kathryn Perry
Pat Karinen
Kaylee Knudsen
Katie Knudsen
Ryan Lopez
Vitaliy and Myra Leshchik

Pacific Coast Chapter President, **Dermot Fallon**, presented each of the three winning students with individual scholarships. Dermot also presented **Pat Karinen** from Local 34 Pile Drivers Union with $1,000 for the Unions' apprenticeship program.

The Board received numerous scholarship applications. This year, the three outstanding candidates chosen are Ryan Lopez (CM, ITT Technical Institute), Kaylee Knudsen (Civil Engr., USC) and Vitaliy Leshchik (CM, CSU Sacramento). "We are confident that our scholarships will help each of the recipients with their individual studies and that the funds provided will help them to achieve their scholastic goals," said Fallon.

"We will continue to seek additional ways to fund scholarships while creating a means to promote the pile driving industry. We trust that our efforts in scholarship will inspire all of the PDCA chapters to help initiate more awareness of the piledriving industry in young professionals. We are proud to be one of the few PDCA chapters that offers college scholarships, and we plan to continue to do so."
Dermot Fallon, 2012.

For more information, contact PDCA Pacific Coast Chapter at 925-754-6633.

PDCA Pacific Coast Chapter
Scholarship Recipients

Miss Kaylee Knudsen: Kaylee lives in Oakley Calif. While in high school, she maintained a 3.98 GPA. She was her Class President both her freshman and sophomore years. Throughout her time in high school she was active in the Student Council and was seen as a student leader. Kaylee was on the Honor Roll and the Cheerleading Squad, yet still devoted time for involvement in community service. Her friends and teachers describe Kaylee as having "resolve and fortitude." Kaylee was selected to receive a scholarship in the amount of $1,000 This scholarship will help further her college education in Civil Engineering at the University of Southern California and encourage Kaylee to continue pursuing a career to benefit pile driving-related industries.

Mr. Ryan Lopez: Ryan received a scholarship in the amount of $2,000. This scholarship will help him finish his college education in Construction Management at ITT Technical Institute and encourage him to continue pursuing his career in the piledriving industry. Ryan is a skilled welder, and has experience in computer drafting and design. Ryan has worked for many of the great companies that have built impressive structures all over California, such as Kiewit, Manson, Dutra, Balfour Beatty, Foundation Constructors, MCM and Cooper Crane. Ryan currently is with CS Marine, and is spending his time on the Dunbarten Bridge repair/retrofit project. He has worked on almost all of the Bay Area Bridges, including the San Rafael, the San Mateo, the Carquinez and the Bay Bridge. Ryan lives in Yuba City, Calif., and is active as a volunteer with his church and on community projects, including a vegetable garden to feed the homeless.

Mr. Vitaliy Leshchik: For about the past five years, Vitaliy has split his time between working at Balfour Beatty, attending college in Sacramento during nights and weekends and commuting from Roseville, where he lives with his wife, to the job site in San Francisco. Vitaliy has worked on several Balfour Beatty projects, including the construction of the Dry Creek WWTP, in Roseville, Calif. Currently assigned to the Transbay project in downtown San Francisco, he is an integral part of the construction team in planning and scheduling for the removal of the existing wood piles (from old building foundations) and installing the new 36" diameter trestle pile. Vitaliy takes on expediting duties, engineering activities and is experienced in drafting and AutoCAD. In his spare time, he volunteers and works with teenagers at a summer camp. Vitaliy received a scholarship in the amount of $2,000. This scholarship will help further his college education in Construction Management at California State University Sacramento and encourage Vitaliy to continue pursuing his career in the pile driving industry.

PDCA Pile Driving Contractors Association

Executive Committee and Board of Directors Tactical Meeting

2013

January 24 - 25, 2013

InterContinental New Orleans
444 St. Charles Avenue
New Orleans, LA 70130

The purpose of the Tactical Meeting is to provide an opportunity for the Executive Committee and the Board of Directors to sit down early in the year to establish a "game plan". The objective is to generate meaningful discussions based on a practical action agenda with specific attention to determining 2013 goals that support PDCA's Vision and Mission statements.

Agenda

- The Executive Committee will meet on Thursday, January 24, 2013 to review the association's Strategic Plan and Bylaws. Changes to the Strategic Plan will include a review of the "Strategic Focus" items, concentrating on the objectives and strategies of each to ensure their continued relevance. Objectives that have been accomplished or are no longer relevant will be removed and new, realistic objectives will be incorporated into the plan for 2013. The Executive Committee will also review the Bylaws, proposing any updates necessary to keep the document current with the rules and procedures by which PDCA operates.

- The Directors of the PDCA Board will meet with the Executive Committee on Friday, January 25, 2013 to conduct the Board orientation for the new Directors. The returning Officers and Directors will be responsible for mentoring new Board members, helping to convey the importance of their position and the responsibilities they have undertaken as Directors on the PDCA Board.

- Topics of discussion will range from Board policies to programs and services; from the organizational structure of PDCA to finance and investments; and from the Vision and Mission of PDCA to committee reviews and updates.

- The final segment of the meeting will include a review of selected topics within the PDCA Bylaws, a review and acceptance of the Strategic Plan for 2013 and approval of the 2013 annual budget.

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For more information, contact Pile Driving Contractors Association at 888-311-PDCA (7322).


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April 25-27, 2013
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PDCA 17th ANNUAL INTERNATIONAL CONFERENCE AND EXPO 2013

Project of the Year Award

Putting Excellence to the Test!

Get Ready, PDCA! It's time for the PDCA Project of the Year Award 2013.

Benefits of Submission!

- **Free press about the work you or your customers accomplished in 2012**
- **Recognition at the PDCA 17th International Conference and Expo 2013**
- **Popular Vote - a new award voted on and announced during the annual conference**
- **Project entries will be displayed at the annual conference**

Easy as 1,2,3!

1. **Submit the Simple Entry Form**
2. **Submit a Brief Narrative and Project Outline**
3. **Submit Media**

After your entry form is submitted, PDCA staff inform you of key dates regarding additional submittal requirements, ensuring your entry packet is complete by the submittal deadlines. Please see www.piledrivers.org for more detailed information on project submittal guidelines.

Easy as 1,2,3!

1. **Submit your Project of the Year entry form and fee of $100.00 before January 11, 2013**
   - Entry forms can be found at www.piledrivers.org or at any PDCA chapter event
2. **Submit Project Information before February 15, 2013**
   - Include the project narrative and project outline
   - This is your opportunity to express how well you have documented your project
   - Contact PDCA for directions on submitting narrative and outline to the FTP site
3. **Submit available photos, video and media coverage by March 1, 2013**
   - Photos need to be minimum 300dpi (3"x 4" sizing or larger)
   - Please see photos, video and media coverage guidelines for submission details

Project of the Year Award

Sponsors Needed

The Project of the Year Award is an important part of PDCA. It is a time to recognize and pay tribute to jobs we do every day in the pile driving industry. It is a time when new ideas can be brought to the forefront and a time to see and share best practices. PDCA Project of the Year entry proceeds and sponsorships help support the PDCA educational programs, research and scholarship fund.

For the first time, PDCA is seeking Associate Member sponsorship of this program. PDCA would like to invite our Associate Members to consider sponsoring this special program.

Submit your company name now for an opportunity to sponsor this program. Companies interested in being considered must send a request to steve@piledrivers.org
no later than December 15, 2012.

Sponsor benefits include a company logo printed on Project of the Year advertising, a quarter-page advertisement in the Annual Conference Wrap-Up section of *PileDriver*, one full registration to the 17th Annual International Conference and Expo, participation in the PDCA Project of the Year Award presentation and company information and logo presented in our video loop at the annual conference.

Cost for the Project of the Year sponsorship is $3,000 USD and is limited to three Associate Member participants.

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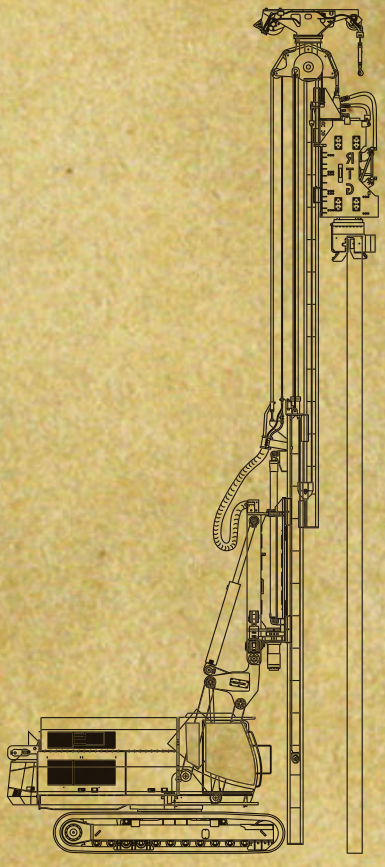

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PROVEN EXPERTISE

ECA is consistently represented on nearly every major and high profile project across the US and Canada, and in a variety of capacities. Our success stems from the diversity of our product lines, our best-in-class service and our specialized knowledge to adapt equipment to a variety of projects.

This knowledge and demonstrated success has placed our employees and equipment in crucial roles when and where they are needed the most. Like the widening projects on the Pennsylvania and New Jersey Turnpikes, Ground Zero, levee restoration in the Gulf after Hurricane Katrina, and the post-collapse replacement of the Mississippi River Bridge in Minneapolis. Stadiums? We have had our equipment on basically every major stadium built east of the Mississippi. Environmentally sensitive projects? We have solved customer problems where local emission standards have exceeded Federal EPA standards or where the use of biodegradable and synthetic oils are required.

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Meet Your New
PDCA Board Members

Dave Graff

My name is Dave Graff. I am the president of Stroer & Graff, Inc., which I co-founded with Conrad Stroer in 1980. Our main office is in Antioch, Calif. and we have a branch office in Chula Vista, Calif. We are licensed to work in California, Nevada and Utah. Besides driving bearing piles, we install sheet piling and do other types of shoring systems. We have done thousands of projects over the last 32 years for bridges, refineries, treatment plans and buildings. The headquarters for Visa and Oracle are supported by our piles, just to name a couple.

I guess you could say I was born into the pile driving business. My father was hired by Raymond Concrete Pile Co. (RCP) in New York at the start of World War II and was transferred to California in 1942 to work on the new shipyards being built in Sausalito and Richmond, Calif. Dad went on to be the Northern California district manager, Western regional manager and the vice president for the Piling Division of RCP by the end of his career. Early on, Dad would take us to look at prospective job sites, as well as jobs in progress. Those were the old steam days and the Raymond Step Taper Pile was king. During high school and college breaks and summers, I worked on pile jobs screwing shells together, lofting piles – you name it, I did it. When I graduated from UC Berkeley, I continued working as a "pile buck" to support my little family as office jobs were hard to come by and salaries were low. I was made job superintendent after a while and then transferred by RCP to Boston, Mass. as assistant district manager and later to Washington, D.C. RCP had begun to neglect the pile driving business in favor of the "oil patch" and moved its headquarters from New York City to Houston, Texas. The hand writing was on the wall, so I loaded up the U-Haul and headed back to California. I had been offered a job with a new pile driving company, Foundation Constructors, which Fred Caven and Joe Hilton had started a year earlier. So it was back to being a "pile buck" for a while, then district manager of the Los Angeles office.

I started Stroer & Graff, Inc. in 1980.

My career has spanned many years and I have seen a lot of changes in our business. From the old steam crawler and hammers to today's diesel hammers, rigs and vibrating hammers, we have come a long way.

Hammer energies and allowable loads have greatly increased with Al Smith's "Wave Equation" and the PDCA helping to prove higher and higher loads feasible. This has helped us keep up, but we are being out sold by the drillers, I'm afraid.

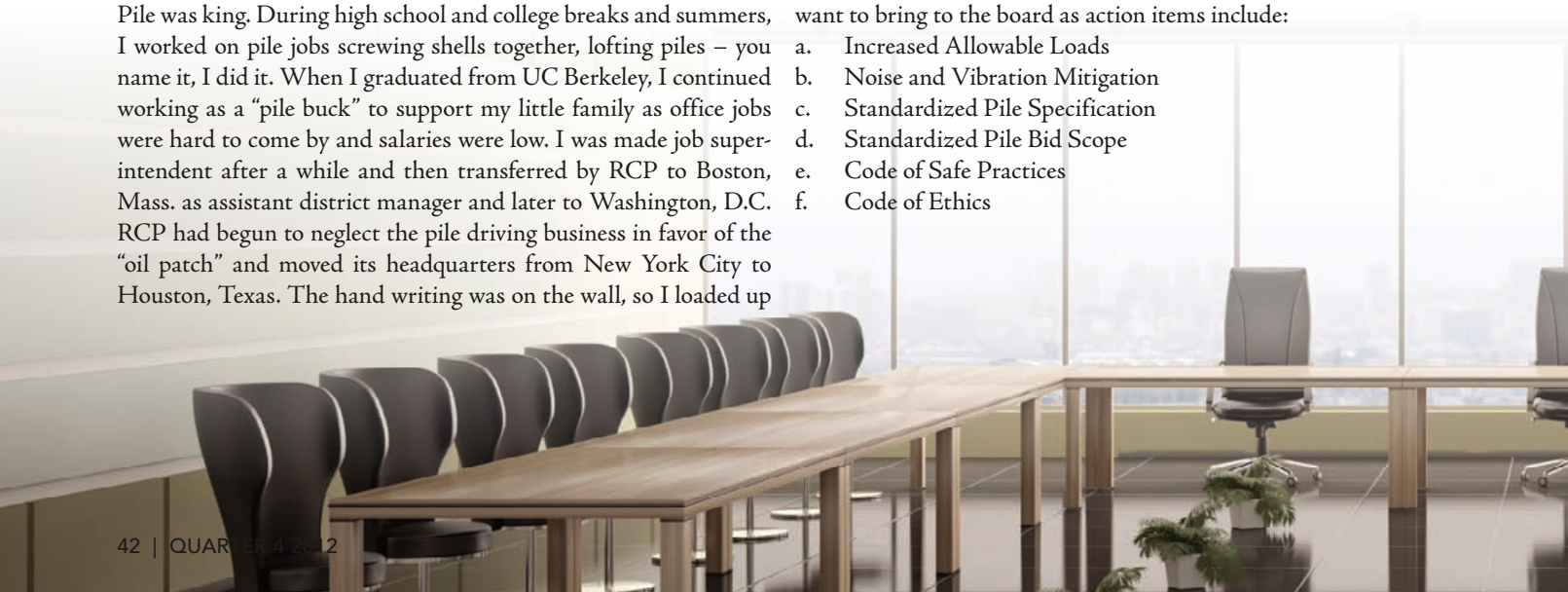
Years ago, I was president of the local chapter of the PDCA – PDCA of the Pacific Coast, but we did not do much except have a Christmas lunch and tell jokes. Thankfully, the local chapter has gotten much more relevant and active, with its scholarship program and industry advocacy.

I have served on the boards of our local parish council, the Delta Soccer League (where I coached and refereed for many years), Graff Family Vineyards, local council, the Boy Scouts of America, the Woodward/Graff Foundation and I was president of the April Club.

I have not gotten any awards yet, but the night is still young.

When I was asked to serve on the PDCA board, I hoped I could contribute something to our business and help the effort to increase market share in our industry. My interests and issues I want to bring to the board as action items include:

a. Increased Allowable Loads
b. Noise and Vibration Mitigation
c. Standardized Pile Specification
d. Standardized Pile Bid Scope
e. Code of Safe Practices
f. Code of Ethics



Mike Moran

In 1986, Mike Moran found himself working with Cajun Industries, LLC and working on his bachelor's degree in civil engineering at Louisiana State University (LSU). After his graduation from LSU his career at Cajun officially begun. In 2000, Mike was named president of Cajun Deep Foundations, LLC, where he has been responsible for company operations, business development and oversees two divisions – piling and drilled shafts. Under his leadership, Cajun was the 2012 recipient of the Engineering News and Record (ENR) Contractor of the Year and two National Eagle Awards for top performing projects.

Mike's passion for the foundation industry started from day one.

"Growing up I loved building things, including high-rise tree houses. I was fortunate to get started with Cajun Industries right after high school and thankful to have every opportunity that the company has presented to me," he said.

Mike's ability to recognize his team's strengths is the reason he has held so many great leadership roles with Cajun. Project superintendent, project manager and division manager are all positions where Mike was able to train others and reinforce his passion for the industry by helping in setting goals, aligning resources with priorities and promoting a collaborative learning culture.

Mike's committed passion is not only focused on the foundation industry but as a community leader in Baton Rouge, La. He is on several boards promoting youth education and rehabilitation, including the Associated Marine Institute (AMI). AMI is a privately founded juvenile rehabilitation center offering alternative ways of educating and counseling on making better decisions and contributions to their future.

Being involved with the PDCA comes with great opportunities. Safety is a priority for Mike and he hopes the PDCA would continue educating the industry on how to deploy best practice safety measures.

"It's a moral obligation of every contractor to ensure every team member on the job site has some form of safety training. Coming up with a new technique and focusing on safety measures, makes me feel that I have contributed to making each job site safer."

Kevin Shannon

Kevin Shannon is the senior vice president at Linde-Griffith Construction Co. The family-owned business has been providing deep foundation and marine construction solutions since 1909 with operations in New Jersey, New York, Pennsylvania and Connecticut. Kevin decided to invest his efforts in the company while ensuring Linde-Griffith continues to thrive, as well as follow in his grandfather's footsteps to keep his family legacy prosperous.

Graduating from Lafayette College in Easton, Pa., where he completed his bachelor's degree in Business Management, Kevin has been involved with Linde-Griffith since 1999. Beginning his career as a surveyor, Kevin moved up the ranks to assistant project manager, then to project manager and now to senior vice president. With this new position, these responsibilities and more are up to Kevin to ensure the business runs efficiently.

Being involved in the industry for over a decade, Kevin still finds himself in an industry of continuous growth and change. Unique projects call for out-of-the-box thinking. New equipment innovation and techniques allow Kevin to stay on his feet and persevere through ongoing changes.

The mindset of moving forward directed Kevin to PDCA where he started his official involvement, becoming president of the North East Chapter in 2010. The goals to grow the region and its popularity within the industry have always been main priorities for Kevin. 2012 has been an awarding year so far for him, as he is now a part of the PDCA's National Board of Directors. Contributing his leadership skills and promoting PDCA to new members, are some of the critical areas Kevin would like to focus on. The goal is to make a direct impact with PDCA and also to take advantage of the great benefits the organization has to offer. Using the knowledge from his fellow board members and applying it to the North East Chapter is something Kevin plans on doing for many years to come.

The goals to grow the region and its popularity within the industry have always been main priorities for Kevin.

Pollyanna Cunningham

Pollyanna Cunningham is the director of marketing and IT communications at ICE – International Construction Equipment, Inc. (ICE®). Her five years at ICE have helped the company gain even further recognition in the industry, especially over the Internet. She spends a great deal of time focused on improving new ways to stay ahead of the curve by introducing and implementing innovative plans for ICE to operate.

Pollyanna's well-rounded experience has allowed her to excel in every point of her career. Her academics prove her dedicated commitment, completing her Bachelor of Arts at Penn State University and her Master of Arts and Master of Business Administration at Webster University. This work ethic propelled her career; some prior positions include special events manager at Epcot WDW Company, organizational deployment specialist to the vice-president at e-LYNXX Corporation and professional fundraiser for Republican politics. Pollyanna's efforts were also able to gain her awards within the industry for professional, civic and reward-driven results.

Pollyanna has committed that same dedication to PDCA. Joining PDCA came with great ambition and opportunity to assist the industry and to help the organization grow. After great efforts and results as acting committee chair, PDCA asked her to join the Board of Directors.

In 2009, Pollyanna was awarded the Chair of the Year Award for recreating the website and for her tremendous involvement with *PileDriver*, moving it from a saddle-stitched publication to a coffee table favorite. Accepting her board member position has Pollyanna feeling extremely privileged and humbled; substantial enjoyment comes from being able to assist others and help to guide the organization into the future.

Leadership capacities come second-nature for Pollyanna: she has held similar roles with other associations and civic groups, including the AEM I MAKE AMERICA Campaign, and was even awarded the Pillar of the Industry Award in 2011. Prior to this, Pollyanna served as the alternative delegate in Pennsylvania for the 2004 Republican National Convention.

Pollyanna's consistent dedication has helped her gain the knowledge and wisdom that enable her to move forward with committed efforts and excitement for progressing with PDCA. Her goals consist of establishing better representation for all PDCA members, delivering more educational avenues that support business standards and creating a gathering place for members to work together for the good of the pile driving industry.

A long-term goal is introducing a lobbying group to help Washington make more informed decisions with money in infrastructure by creating a stronger and tighter organizational partnership with those who have a strong voice in D.C.

"I believe that the more support I can give to the pile driving industry – contractors, manufacturers and engineers – the more stable the industry becomes," Pollyanna noted.

She believes coming together with the same mindset of moving forward combined with the right work ethic can bring great results for PDCA and the industry as a whole.

Doug Keller

Douglas Keller, P.E., is president and CEO of Richard Goettle, Inc., a Cincinnati-based specialty foundations contractor. Doug was elected to the position of president by the Board of Directors in 2004, following 16 years with the company as a project manager, vice president of engineering and sales and executive vice president. He has designed hundreds of permanent and temporary earth retention projects, deep foundations and marine structures. Recently he designed and supervised construction of the deepest single wall cofferdam known in the United States.

Doug received a Bachelor of Science in Physics from Northern Kentucky University, a Bachelor of Science in Civil Engineering from the University of Kentucky and a Master's of Science in Geotechnical Engineering from the University of Cincinnati (UC). He completed all the coursework for and passed the PhD qualifying exam at UC, but was hired by Larry Rayburn before completing his dissertation.

Doug is currently a trustee for the Deep Foundation Institute and served as the Chair of DFI's Tieback and Soil Nail Committee. He is also a member of the American Institute of Constructors, Engineers and Scientists of Cincinnati and the American Society of Civil Engineers, where he served as the local chapter president from 1994-95. In 1995, he received the Young Engineer of the Year Award from the Engineers & Scientists of Cincinnati. Doug is registered as a professional engineer in 16 states, has been married to his wife, Mary, for 21 years and has three children. ▼

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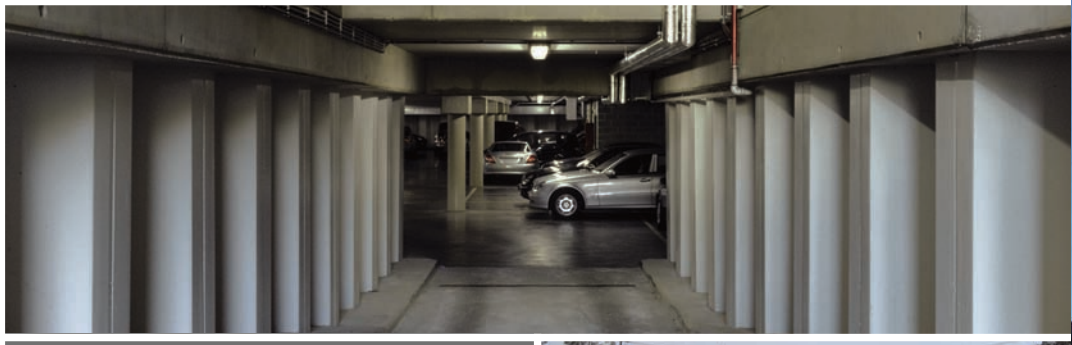

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Superior Construction

From the Hoosier State to the Sunshine State

By Jim Chliboyko

It's about 1,000 miles between Gary, Ind., and Jacksonville, Fla., give or take a few, depending on your route. But it's a 1,000-mile stretch that also separates the two regional offices of Superior Construction, a family firm started up by an Italian immigrant in the 1930s on the shores of Lake Michigan.

"Our company started in Gary in 1938," said Nicholas Largura, from Superior Construction's second home in Florida. He's part of the fourth generation of Larguras who have worked at Superior since their great-grandfather began the company 74 years ago. "Our presence in Florida started in the late '80s. We slowly started to pick up highway work here, until we were one of the top contractors in northeast Florida."

"But it all goes back to our great-grandfather. He came over from Italy," said Largura. "Once he managed to get some construction guys together, he scraped money to bring the rest of the family over. I still like going up to Gary because of that. That's where it all started."

The two offices are treated like two different, but connected, entities. They each sport their own website (Gary's is www.superior-construction.com, while Florida's is www.superiorfla.com) and they tend to have different types of jobs, as well. The Florida business is generally more transportation-infrastructure oriented, while the focus of the Gary office is on refinery and other industry-specific jobs.

"We look at it as more of a strength," said Largura, about maintaining the two different centers. "As the southern market boomed, the real estate in the area boomed, too. We took advantage of that by getting a lot of contracts in highways in Florida. Indiana then slowed down. Now, Florida is slowing down, the Midwest is picking up."

Together, the company generates revenues of over $250 million annually, with a workforce of approximately 1,300 employees.

From their beginnings in Gary, the company was involved in constructing such historical buildings as the impressive St. Mark's Catholic Church and Lew Wallace High School, as well as two historically and locally important buildings, the Virginia Hotel and the Gary Public Schools Memorial Auditorium, where Harry Truman once spoke in the 1940s. Superior also specialized in post offices before expanding into highway, industrial and wastewater treatment jobs.

Superior is also responsible for much work on the steel mills and refineries of northwestern Indiana and has worked for such notable companies as U.S. Steel, Inland Steel, Bethlehem Steel, Midwest Steel and BP/Amoco. As steel is the material the country is essentially made from, one could say that Superior helped build America's builders.

Looking historically at the company's past work, compared with what they do now, it's obvious that things have changed a bit for Superior, over the almost three-quarters of a century the company has been at work. As the market has changed, the company has adapted.

"Right now, it's mostly industrial work," said Largura. "The reason for our company's success is that we managed to go wherever the work is. Originally, it was in post offices and housing. When the steel industry developed (in Gary), we managed to capture that. As the auto industry has changed, the refinery work picked up. When the government pushed the national infrastructure program, that's what brought us to Florida."

Though it's such a big company doing so many different things, they haven't forgotten about the importance of piling.

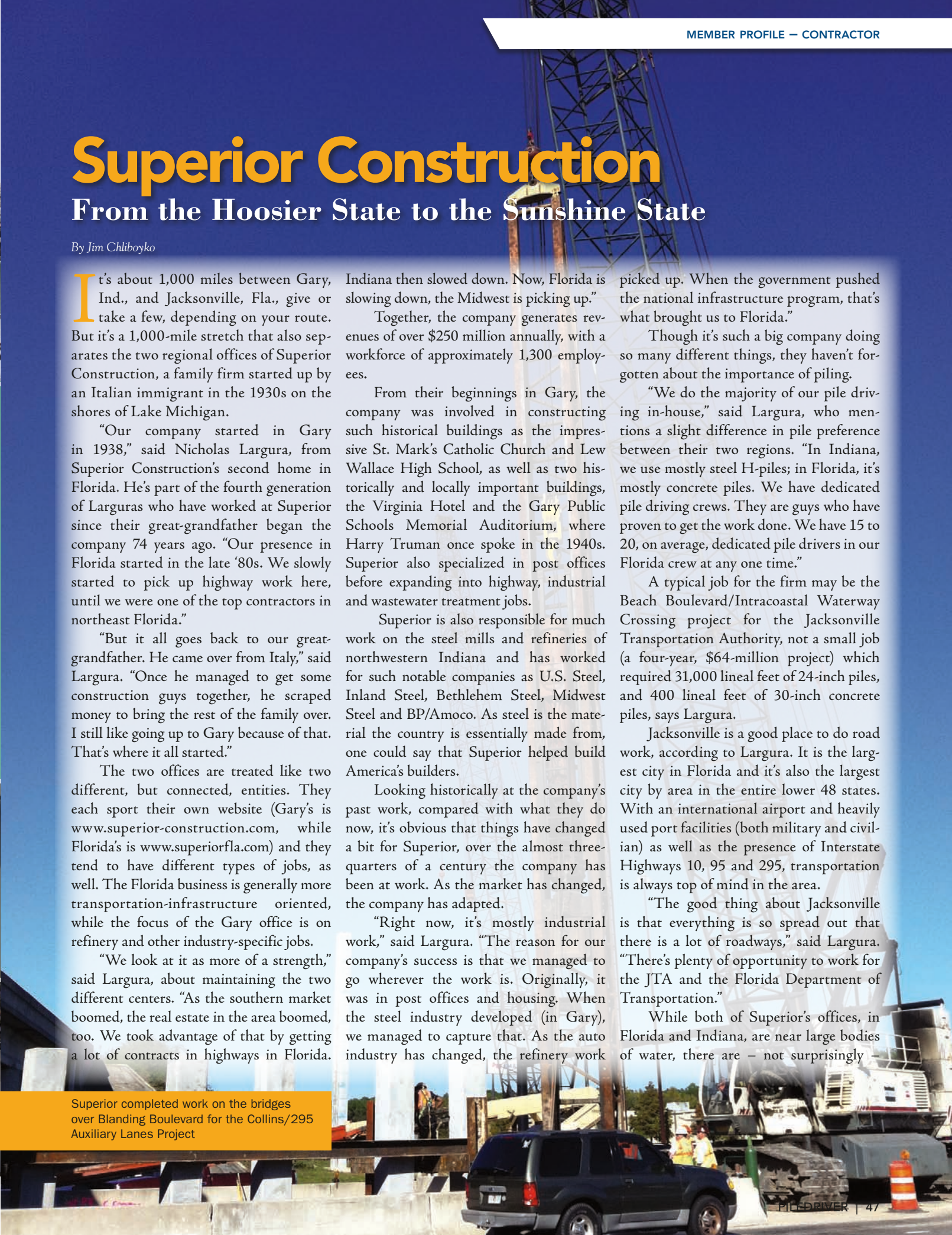
"We do the majority of our pile driving in-house," said Largura, who mentions a slight difference in pile preference between their two regions. "In Indiana, we use mostly steel H-piles; in Florida, it's mostly concrete piles. We have dedicated pile driving crews. They are guys who have proven to get the work done. We have 15 to 20, on average, dedicated pile drivers in our Florida crew at any one time."

A typical job for the firm may be the Beach Boulevard/Intracoastal Waterway Crossing project for the Jacksonville Transportation Authority, not a small job (a four-year, $64-million project) which required 31,000 lineal feet of 24-inch piles, and 400 lineal feet of 30-inch concrete piles, says Largura.

Jacksonville is a good place to do road work, according to Largura. It is the largest city in Florida and it's also the largest city by area in the entire lower 48 states. With an international airport and heavily used port facilities (both military and civilian) as well as the presence of Interstate Highways 10, 95 and 295, transportation is always top of mind in the area.

"The good thing about Jacksonville is that everything is so spread out that there is a lot of roadways," said Largura. "There's plenty of opportunity to work for the JTA and the Florida Department of Transportation."

While both of Superior's offices, in Florida and Indiana, are near large bodies of water, there are – not surprisingly –



Superior completed work on the bridges over Blanding Boulevard for the Collins/295 Auxiliary Lanes Project

The job on the 9A/I-95 overpass

The construction of two-thirds of a mile of road and two bridges at Plantation Oaks Boulevard, using, among other things, 1,700 linear feet of prestressed concrete pile

"The marine projects have very irregular soils; as well, there's a shifting dynamic of shorefront. It's a continual challenge to go into these projects."

– *Nicholas Largura, Superior Construction*

some made-in-Florida challenges to shoreline work.

"The marine projects have very irregular soils; as well, there's a shifting dynamic of shorefront. It's a continual challenge to go into these projects," said Largura.

The company is also proud of its safety record. Superior has won numerous safety awards and their record is something of which they're very proud. Largura credits their safety record, in particular, as leading to the amount of work in the refinery sector in Indiana.

"We have recorded 14 million man-hours of work in the British Petroleum refinery, in Whiting, Ind., without a lost-time accident," said Largura.

Specifically, in recent years Superior has been awarded the 2010 USF (University of South Florida) Sunshine State Safety Award and the 2011 Florida Transportation Builders' Association Safety Award. The Gary arm of the company has been awarded the 2008 to 2011 ICA Golden Summit Award for Leadership in Construction Safety, the 2009 Indiana Governor's Safety Award and the 2010 NMAPC Zero Injury Top Performance Safety Award.

Largura explains such an emphasis on safety in two ways.

"I would say it's cultural, but also because of Tom Owens, our safety director. He's been in the place for over 50 years."

But, says Largura, it also has to do with the company's notion of the importance of their employees.

"We're not a nomadic company hiring people that we've never met before, then, once the job's done, kicks them out. We know our employees; I know most of my foremen. Employees aren't just the people who are getting the job done. They are a part of the company, too." ▼

Piling Performers

Florida-based Piling Products, Inc. has made a name for itself as a leader in sales and rental of piling products

By Kelly Gray

When contractors dig, they face the possibility of cave-in and collapse. Certainly, projects from manhole repair to lift stations to retaining walls are works that seek out solutions to make sites safer for crews and accessible for work to be performed. Enter Piling Products, Inc. (PPI) of Jacksonville, Fla. This company has been making construction sites safer and projects more cost effective since 1984 through its full line of steel sheet piling and associated products.

Since its inception, PPI has achieved a leading position in the Florida steel sheet piling and steel foundation piling sales and rental market as well as throughout the surrounding southern U.S. states. It is this success that has attracted the interest of suitors who sought to grow their market share in key sectors.

Today, the company is a division of Roll Form Group (U.S.) Inc., which is a subsidiary of Samuel, Son & Co., Limited. This follows a 2009 acquisition where the Toronto-based multi-national obtained PPI and its strategic assets. According to Samuel, Son & Co., the strategic acquisition was one that complimented its existing sheet piling roll forming capability at its Roll Form Group operations in Iuka, Miss. and Cambridge, Ont. and helped to provide sales and rental coverage in the southern U.S. states working to complete Roll Form's coast-to-coast sales network.

"We got our start in the southeast U.S. and then moved into the Gulf area, the Midwest and the mid-Atlantic regions," said Lane Koslow, PPI's engineering manager. He reports that customer requirements tend to be highly specific for projects where their piling needs are typically a one-off situation.

"In addition to sales we also provide rental materials for temporary construction projects. This means contractors don't have to buy and own expensive items that can sit around in equipment yards between jobs," he said, adding that they are looking at expansion of strategically located rental yards as well as new product offerings.

Temporary PZ-27 sheet piling for NC DOT on Highway 220 in Guilford County, N.C.

The company got its start as the progeny of Gary Johnson and Sandra Richardson. Johnson was an executive with Mississippi Valley Equipment Company and Richardson was a sales manager. The pair could see the benefits of filling a market need that offered a way for contractors to save on projects by reducing capital costs through rentals. Through their vision, PPI was born. Richardson currently functions as the division's general manager.

"Today we set the industry pace for rentals and we have increased both our sales and market share," Koslow said, noting that the PPI division carries over 13,000 tons of rental inventory between its Florida and Mississippi yards while it sells in excess of 10,000 tons of new piling products annually. "The recent tough economy has us holding steady while we wait for things to pick up," he added.

PPI offers a line that features both hot-rolled and cold-formed sheet piling for a wide range of applications. The assortment

U.S. Army Corps of Engineers C-44 Reservoir Improvements in Indiantown, Fla. featuring temporary and permanent coated XZ and JZ sheet piling

includes Roll Form Z, EZ, XZ, JZ-sections, various hot-rolled sections, H-bearing piles, pipe piling, structural shapes and vinyl and aluminum sheet piling. Add to this list things such as protective coatings, interlock sealant, vibratory hammers, sheet pile shackles, points and splicers, pipe pile points, tie-rods systems, ground release shackles and fabrication services and the full range of PPI/Roll Form Group capabilities come into focus.

"There is no job too big or small for us to handle," Koslow said. "There is simply no project we cannot offer a quotation on. We can aid in design and submittals and have engineers on staff. We have the ability to furnish equipment and piling solutions on short notice. And we can do it at competitive pricing to any location."

He noted that their cold-formed sheet piling product is manufactured at the company's mill in northern Mississippi.

"When things like hurricanes happen or a contractor has an emergency request we are able to get on it fast and have the right product and solutions available quickly. The speed of our response is certainly a key point to our product and service mix that keeps us ahead of the competitive game," he said.

Product is shipped f.o.b. from PPI's head office and warehouse where they maintain a skilled workforce of 18 associates. Shipments are also made from the Luka, Miss. facility and an eastern Pennsylvania location. This roster includes sales staff, warehousing personnel as well as engineering specialists. In fact, PPI's breadth of experience is such that they have personnel that can help with virtually all aspects of a contractor's piling requirements right down to design and engineering.

"Our goal is to achieve product-right sourcing that gets the correct pieces into place quickly on job sites. We understand that delays are costly. We have the team in place to get it right before products are shipped to job sites," Koslow said. "The success we enjoy today is a result of the hard work we put in at the front end and the follow-through planning that makes a Piling Products solution as cost effective as you could find in the industry today."

At any given time PPI is involved in as many as 100 separate rentals. This makes them the most experienced in the industry, an aspect on which they continually build by sourcing new products and developing innovative techniques.

"As we grow we increase our sales volume and experience, add to our market reach and bring in more product lines to enhance the offering to new levels of capability," Koslow noted.

Indeed, the level of capability and capacity is considerable, especially given the recent acquisition that has placed PPI together with Roll Form Group (U.S.) Inc. within the Samuel family of companies. Now PPI can call on support from engineering and design teams at Roll Form Group or Samuel.

"We always stated that we could handle any job, big or small. By being part of a larger corporation with all their resources we have found that we are in an even better competitive position thanks to our abilities to be a one-stop source for piling solutions," Koslow said.

Certainly, construction undertakings can be hazardous. PPI is helping lessen risks and increase project productivity and the bottom line through product innovation, customer service and strong skill sets that have made them industry leaders.

"Now that we are part of a bigger family of companies, look for the innovations to continue," Koslow said. "When construction firms have need for piling solutions ours is the only call they need to make." ▼

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Pipe piling both driven and waiting to be driven. The piling was a foundation for a building to service trains/engines in Bayonne, N.J. Piling was supplied by Skyline Steel.

Lane Enterprises, Inc.

This manufacturer of drainage products remains committed to quality assurance, technology and customer satisfaction

Lane Enterprises, Inc. is a veteran company with over 75 years experience and steady growth. Founded in Bath, N.Y., their focus on quality products, responsible customer service and technical expertise has led them to a long history of success. Ray Lane founded the company in 1934 and throughout the years new plants have been added along the east coast. In 2006, they transitioned to a 100 percent employee stock ownership plan (ESOP).

The full-line manufacturers of corrugated metal and HDPE drainage products have 11 plants throughout the east coast. Their involvement with state/federal agencies and organizations like the American Society for Testing and Materials (ASTM) and the American Association of State and Highway Transportation Officials (AASHTO) continue to help gain the knowledge and wisdom necessary to be the leader of this consistently changing industry. Lane also has memberships with the Concrete Reinforcing Steel Institute (CRSI), the Wire Reinforcing Institute (WRI) and American Bridge Construction and Design (ABCD). The company also participates in many coating projects for state departments of transportation in the mid-Atlantic and northeast regions.

Powder coating is one of Lane's specialties; this comes as no surprise as they have been applying their technique for over 20 years. This alternative application uses finely ground particles which are electro-statically charged and sprayed onto parts. This type of coating is more durable when compared to traditional liquid coatings. The faster process adds increased value as this can take anywhere from just 30 seconds to an hour to complete and is more cost effective than the multi-coat liquid systems.

Lane has been offering quality and experienced service for many years; their wide range of uses with unique property advancements puts them in a great position to create additional applications. Advancements in technology have pushed them forward to create and apply environmentally friendly powder coating. Not only are the harmful solvents eliminated in this process but powder coating can be recycled and has no effect when waste water is discharged into public sewers.

"These coatings have a proven track record in the oil and gas pipeline industry, with many of these attributes carrying over to driven piles."

– Gene Anderson, Sales Manager, Lane Enterprises, Inc.

Sheet piling just after installation at the Tuckahoe Creek Bridge between Easton and Denton, Md.

Lane's mission continues to be: "provide high-quality industrial powder coat finishes for larger products that require a higher level of functional protection than provided by traditional coatings." Their plan to achieve this goal comes by the commitment to quality assurance, technology and customer satisfaction.

In an interview with Gene Anderson, sales manager for Lane, he was able to answer some important questions about the company for PDCA members:

Pipe piling at the Maine State Ferry Service landing in Rockport, Maine. This project was completed by Prock Marine.

Q: How does your product impact or tie to PDCA membership?

A: Lane Enterprises supplies fusion-bonded epoxy (FBE) coated piling to the piling market throughout the United States. The FBE gives excellent corrosion and chemical resistance and is an excellent alternative to other coating systems in the market. It is also environmentally friendly!

Q: What are the advantages to using your product that you would like the membership to understand?

A: Aside from the environmental advantages, FBE coated piles provide better corrosion and chemical resistance in marine environments. And, when combined with an abrasion-resistant overcoat (ARO), you add superior scratch and mar resistance. These coatings have a proven track record in the oil and gas pipeline industry, with many of these attributes carrying over to driven piles.

Q: How should the membership look at their existing services to evaluate their impact compared to using your services?

A: The coatings (FBE and ARO) that we apply are alternatives to other applied materials. The FBE and ARO are offered due to their superior performance characteristics. And, they are offered in more than one color.

Q: What is the number one thing you would like the PDCA membership to know about your company?

A: Lane is a full-service powder coater. Our powder coating line can handle large parts (4.5 ft. (w) x 9.5 ft. (h) x 120 ft. (l) x 18 tons). We can apply the dual-layer, dual-powder coat system to sheet and pipe piling. We also apply decorative polyester powder coatings for the highway market which includes sound wall posts, guide rail, bridge rail and overhead sign structures. ▼

The Brazilian company that has evolved into a world leader in machinery innovation

CZM Foundation Equipment, a Brazilian machinery company, offers machines for various foundation applications and delivers a wide variety of equipment ranging from mini conveyors, excavators, cranes and handheld pieces to over 25 countries on five continents. Their mission is to provide foundation equipment solutions, gain customer profitability and generate sustainable results.

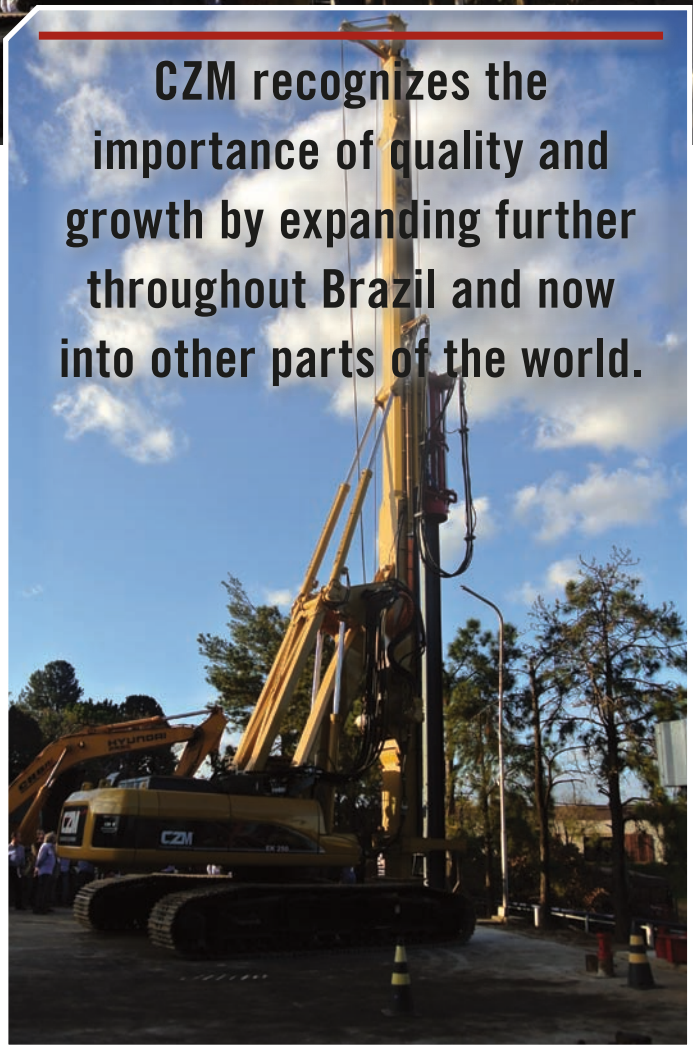
Enthusiasm for their business and taking pleasure in making machines with a commitment to clients by ensuring the constant evaluation of products allows CZM to maintain its leadership among manufacturers of foundation equipment in Brazil. Developing innovative quality designs keeps CZM on the pursuit of excellence. The company sustains growth with its belief in creativity, persistence and determination. These characteristics have helped in establishing social and environmental responsibility and professionalism.

In order to gain the edge over its competitors, CZM revolutionized the implementation of continuous flight auger piles. The patented system, named Bottom Drive CFA, applies to the position of the rotary head at the foot of the drilling rig. When comparing the product to the traditional system, the advantages of being extremely lighter and balanced stands out as the entire center of gravity is downwards; this allows the drill to reach greater depths and drilling diameters. It's extremely efficient and robust drilling head allows for more consistent and effective drilling torques. Stability was also addressed providing for greater safety in the operation of the continuous flight auger.

CZM also offers a line of hydraulic pile driving machines equipped with Fambo Hammers ranging from five to eight tons mounted on a Caterpillar base. This equipment provides high energy transfer efficiency, high hammer frequency and it is easy to transport with quick on-site setup.

CZM recognizes the importance of quality and growth by expanding further throughout Brazil and now into other parts of the world. Branching off into Sao Paulo, Brazil and establishing a new facility in Savannah, Ga., CZM was able to gain popularity in new markets as it's proven to be an important logistical hub that facilitates and expedites the distribution to all regions of Brazil and the U.S., which is critical to this company's exports around the world.

CZM recognizes the importance of quality and growth by expanding further throughout Brazil and now into other parts of the world.



With over 30 years of experience, CZM continues to develop and perfect its management quality because it understands that the more satisfied customers are, the higher sustainable growth.

Establishing these important fundamentals allow CZM to meet market demands not only in Brazil but around the world. ▼

COVER STORY

After the Flood

Eustis Engineering at forefront of rebuilding efforts in New Orleans

By Mark Halsall

In the wake of America's most destructive storm, New Orleans, La. has done a remarkable job of pulling itself up from the depths of the disaster that was Hurricane Katrina.

Eustis Engineering Services, L.L.C. has played a big part in this rebuilding. In the seven years since Katrina, the New Orleans geotechnical engineering and construction materials testing firm has contributed to flood protection works as well as a multitude of infrastructure, commercial and industrial reconstruction projects.

"Hurricane Katrina was very close to home," said Chad Held, a vicepresident and project manager for Eustis Engineering.

"It was some very tough times," he added. "We had many employees who lost everything they had, their houses, their cars… but like everyone else in New Orleans, we kind of accepted it and did what we had to do to get ourselves back up and running."

For Eustis Engineering, that meant acting swiftly to set up a temporary replacement office more than 100 miles away in Lafayette, La. obviously not an easy feat.

As Held explains, the company managed to lease new office space, bring in furniture, transfer servers from New Orleans to Lafayette and get back to work on a job – all within a week from when Katrina hit.

"It showed a lot of dedication from our employees to react so quickly and understand that, yes, we were going through some terrible personal times, but it was an opportunity for us to show our resolve and get back to work," he said.

Eustis Engineering's headquarters is now back in New Orleans, but it maintains an office in Lafayette. The company also has branches in Baton Rouge, La. and Gulfport, Miss.

According to Held, the regional focus is Louisiana, Mississippi, Texas, Alabama and occasionally Florida, although the company's resume includes projects in 22 states and a dozen foreign countries.

Eustis Engineering is known for providing innovative, timely and cost-effective geotechnical solutions that include:

- field exploration services (i.e. soil borings, cone penetrometer testing, in situ vane shear testing, etc.)
- laboratory testing
- geotechnical engineering
- construction quality control and materials testing
- dynamic pile testing
- geotechnical instrumentation

The company's efforts in the piling industry include assisting and facilitating the design and construction of driven pile foundations as well as specialized pile testing.

"Some of those tests would be dynamic pile testing, static load testing, logging the installation of piles and performing pile integrity tests," Held said.

Dynamic testing in marine environment for IHNC Floodwall

Lateral load test setup at IHNC

Background: Concrete and steel piles comprising IHNC Lake Borgne Surge Barrier foundation

"Everybody plays an integral part in the success of the company. It's a total team effort to ensure that clients get a quality product, from initial soil borings to laboratory testing to engineering design to construction inspection services."

– Chad Held, Vice President and Project Manager, Eustis Engineering Services, L.L.C.

One of the first private firms to practice soil mechanics in the southern U.S., Eustis Engineering was founded by J. Bres Eustis back in 1946.

"It has its roots in a long history of engineers and construction inspectors who have worked together to promote the company and to promote geotechnical engineering in the pile driving industry," Held said.

The founder retired back in the 1980s but a family presence remains – his son, Randy Eustis, is the company's executive vice president and treasurer. Rounding the list of vice presidents are Held, Gwendolyn Sanders, James Hance and Travis Richards. Bill Gwyn is the company's president.

Expertise helps set Eustis Engineering apart

Eustis Engineering is now employee-owned and has a staff of about 110. Held maintains this ownership structure "gives everyone a bigger stake in the direction of the company and also gives them a chance to feel like they have a vested interest and a reward if the company does well, other than just their pay.

"Everybody plays an integral part in the success of the company," he said. "It's a total team effort to ensure that clients get a quality product, from initial soil borings to laboratory testing to engineering design to construction inspection services."

According to Held, Eustis Engineering employees are not only dedicated but also extremely knowledgeable about their work. And it's this expertise that helps set the company apart.

"We have a very experienced staff with many years of design as well as construction inspection services," Held said. "That experience helps us provide economic designs for our clients and also allows us to provide quality inspection services, because not only do we have qualified experienced inspectors out in the field but we also have an engineering staff that is extremely construction-oriented."

Held cites technology as another key focus for Eustis Engineering.

"Being innovative with regard to technology has helped us tremendously," he explained. "We try to always stay abreast of new technology with regard to testing and geotechnical design."

Among the company's high-tech tools is a Pile Driving Analyzer (PDA), which Held says "has provided us with extensive knowledge of pile performance during installation as well as long term capacity estimates for pile design.

Logging square, precast concrete pile at I-12 Widening

"That has been an invaluable tool in understanding hammer performance and soil to pile interaction to ensure the pile is being installed without being overstressed and that it is achieving adequate initial capacity upon installation, and to verify our long-term capacity predictions," he added.

Louisiana Superdome among signature projects

Eustis Engineering has played a part in some 20,000 projects over the years, involving everything from offshore structures, flood protection, interstate highways, airports, universities, high-rise structures and industrial facilities.

Drilling soil borings for the Louisiana Superdome

"We did the foundation design for the Louisiana Superdome as well as the New Orleans Arena," Held said, who lists the 24-mile long Causeway Bridge across Lake Pontchartrain as another signature project.

Held points out that Eustis Engineering remains heavily involved in rebuilding efforts in and around New Orleans.

"We are currently working on geotechnical design and construction inspection for the Huey P. Long Bridge that's being expanded right now. This is a significant structure that was named as a National Historic Landmark by the American Society of Civil Engineers on Sept. 28, 2012," he said.

"We're also doing the geotechnical design and foundation load testing and pile driving inspection for the University Medical Center Hospital, which is one of the new hospitals being rebuilt in the New Orleans area."

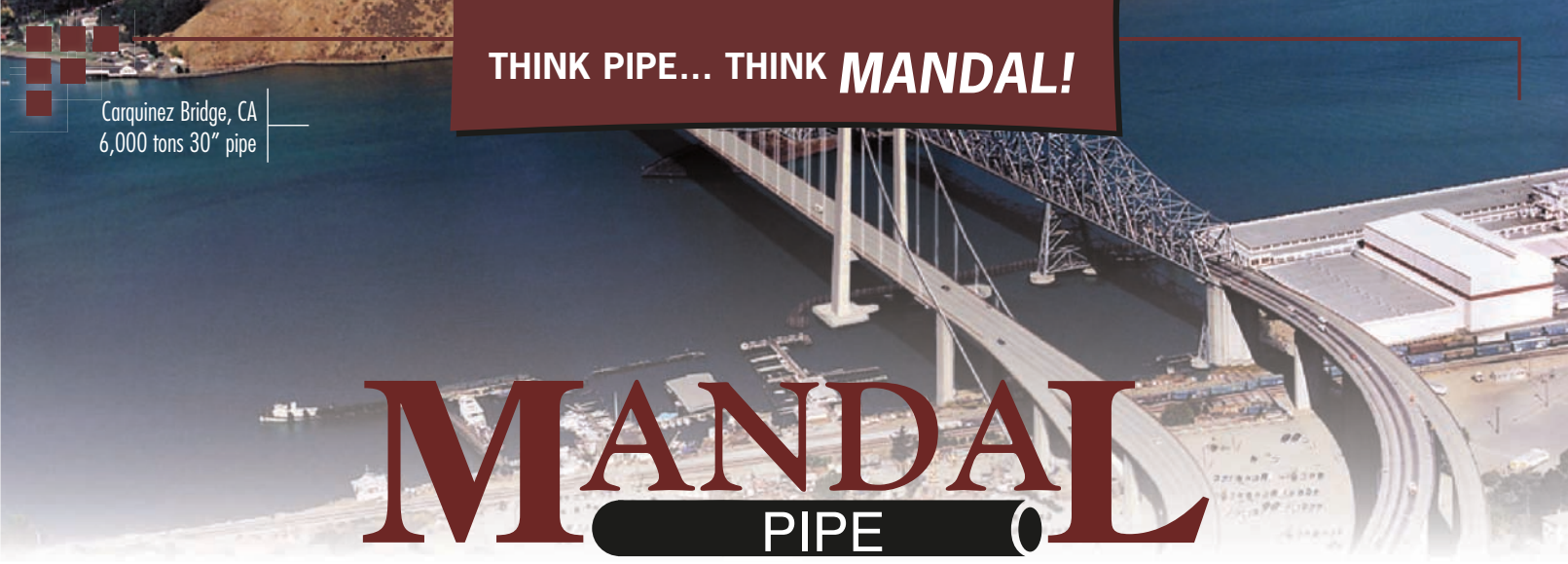
In addition, the company has lent its expertise and experience to numerous hurricane and flood protection works for the U.S. Army Corps of Engineers, local governments and other agencies. A notable example is the Inner Harbor Navigational Canal (IHNC) Lake Borgne Surge Barrier – a colossal project aimed at helping protect New Orleans from another hurricane disaster.

"We participated in the geotechnical exploration and provided geotechnical recommendations for various pile founded structures. In addition, we were the project-wide geotechnical engineer, which included the performance of various static and dynamic pile load tests and pile installation observations to verify pile design requirements were met," Held said.

"It's one of the largest design-build projects ever done by the U.S. Army Corps of Engineers and that was one of the structures we were involved with from initial design all the way through construction with regard to pile foundations."

Held says Eustis Engineering has a well-deserved reputation for excellence in the construction industry, as proven by numerous industrial and civic awards. They include a National Recognition Award from the American Council of Engineering Companies and several Certificates of Recognition from the U.S. Army Corps of Engineers.

For more information on Eustis Engineering, check out their website at www.eustisengineering.com. ▼



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Repairing the Jefferson Memorial

Piling for the North Plaza and Seawall was crucial to the project's success

By Darrell Wilder, P.E., Senior Associate, Schnabel Engineering and Helen Robinson, P.E., Schnabel Engineering

In the summer of 2011, emergency repairs to the Jefferson Memorial North Plaza and Seawall were completed. These repairs were necessitated by settlement and lateral movement of the seawall and North Plaza, which prompted the National Park Service (NPS) to initiate an investigation as to the possible causes of the movement and commission a design for its mitigation.

Information gathered from extensive instrumentation on site led to the design of a movement mitigation scheme that included demolition of the Ashlar Seawall and reconstruction of a new seawall. The new seawall foundation is an A-Wall consisting of vertical caissons and battered pipe piles connected to the seawall itself. The scheme provides resistance to future vertical and lateral movement of the North Plaza and the new seawall. Repair to the seawall and plaza began in December 2009 and was completed in August 2011.

Clark Construction Group, LLC out of Bethesda, Md. was awarded the contract in November 2009. Clark constructed a temporary work platform over the North Plaza in order to facilitate repair activities. The contractor drove additional H-piles at the northern edge of the North Plaza and built a grillage system to support their cranes and heavy equipment. The platform facilitated work and prevented damage to the North Plaza. The majority of the construction activities, including caisson installation and pile driving, were performed from the platform.

According to the design by Schnabel Engineering, steel sheet piling was installed completely surrounding the existing seawall in a 600-foot long, 40-foot wide arcing cofferdam. Once the cofferdam was dewatered, the existing Ashlar facing blocks were removed, cataloged, stored and the seawall was dismantled. Following the seawall demolition, the existing timber piles were cut off one foot below the proposed bottom of seawall. Five-foot diameter reinforced concrete caissons were installed by Raito, Inc. of Woburn, Mass. using a Bauer BG 30 rig with a flighted auger. The caissons were temporarily cased as they were drilled through soft soils to a depth of about 60 feet. The auger was then advanced without casing using synthetic drilling mud to prevent caving of the formation. Upon reaching hard rock, the auger was removed and a rock core barrel was used to create the ten-foot embedment into suitable rock.

As caisson installation was nearing completion, pipe pile instal-

lation began. The 18-inch diameter battered pipe piles were fitted with a conical driving tip so they could be driven to refusal at the top of bedrock without undergoing structural damage. The piles were installed with a 25 or 35 degree batter which required a specialized Junttan driving rig to accommodate the angles. Driving the piles was relatively easy given the soft overburden materials. After the piles were driven to refusal, they were filled with a 4,000-pound per square inch concrete mix, placed from the bottom. The top 15 feet of each pipe pile were reinforced with 1-3/4-inch Grade 150 threaded bar, which was connected to an end plate embedded in the seawall. Prior to installation, a load test program was completed to verify actual bearing capacity achievable. Two vertical piles were installed within the west transition zone area with arc weldable strain gauges placed at four locations along the length of the pile. The test piles were driven in two pieces to accommodate the depth to bedrock and spliced at a splice collar with a full penetration weld.

After completion of the driving activities, the strain gauges did provide usable data for the load test. Two load tests were run using the ASTM D1143 Quick Method to determine the amount of settlement recorded with loads applied at 866 kips (200 percent of design load). After the instrumentation malfunctions, thought to be from the hard driving, a third vertical pipe pile was installed with both arc weldable strain gauges and sister bars installed with the center reinforcing bar to provide a "belt and suspenders" approach, ensuring multiple sources of data were collected in the last load test. In addition, the pile was driven to a shallower depth to obtain the skin friction capacities required to verify and complete pile design. All gauges functioned correctly and adequate data was collected to verify the pipe piles would meet the design load of 433 kips in compression. The maximum total deflection of the piles was about 0.6 of an inch under the maximum test load of 866 kips.

Following the seawall and foundation work, the contractor restored the North Plaza to its former layout: resetting the granite curb stones, pouring a new reinforced concrete plaza and refinishing the surface with exposed aggregate topping. New landscaping and lighting were installed with the overall goal of preserving the historic fabric of the memorial and creating a smooth transition to contribute to a positive visitor experience. ▼

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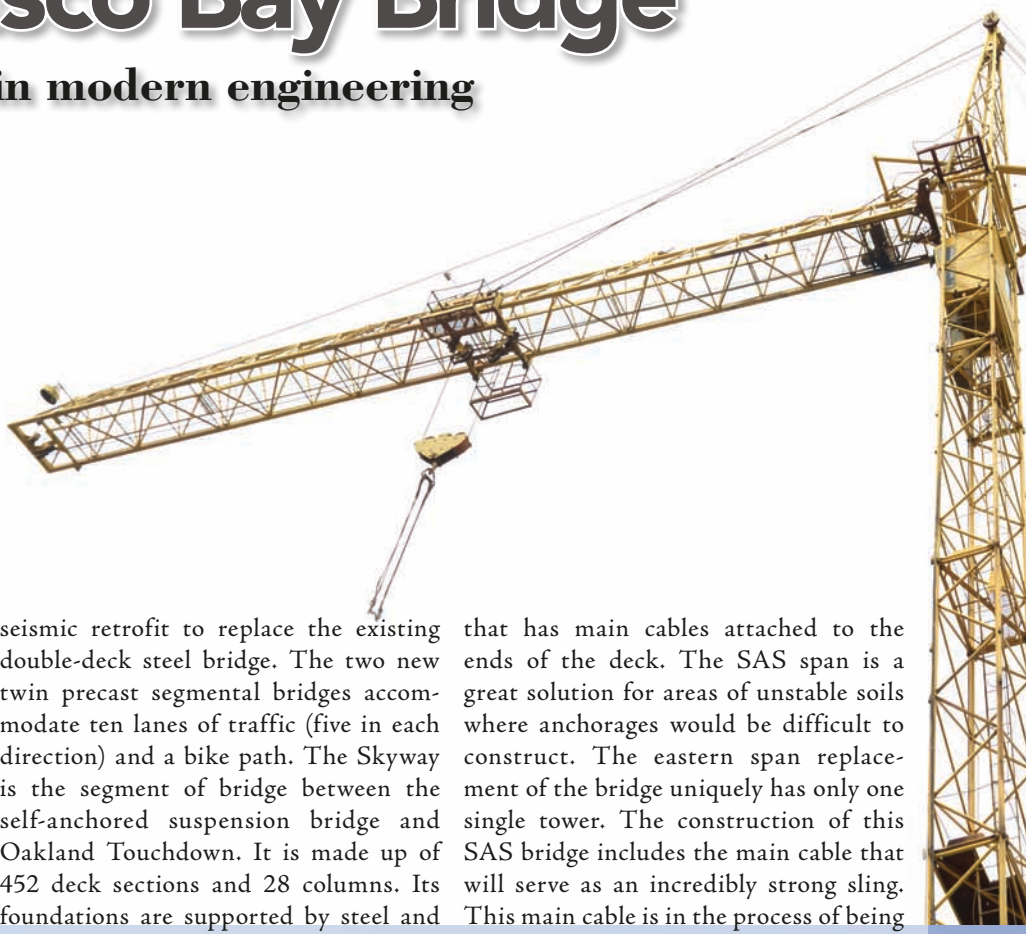

Innovative engineering technologies are placed in the spotlight with the San Francisco Bay Bridge as the main stage. The bridge connects the eastern side of San Francisco, Calif. with the western side of Oakland, Calif. The recently enhanced bridge is the world's first to include the latest seismic event safety enhancements along with structural, visual and travel improvements, making the San Francisco Bay Bridge the iconic symbol of modern engineering of the 21st century.

Many projects for the revitalization of the bridge have been completed and are still underway. The largest of these projects include the new skyway, the first of the series of bridge upgrades and the east side of San Francisco-Oakland Bay Bridge Self Anchored Suspension Span (SAS). Two 1,800-ton orthotropic tubs will connect the recently completed Skyway portion of the bridge to the SAS span which is currently under construction.

The $1.04-billion, 1.2-mile long "Skyway Segment" of the eastern span connects travelers across the San Francisco Bay from Yuerba Buena Island to the city of Oakland. Construction of the Skyway consists of a four-phase seismic retrofit to replace the existing double-deck steel bridge. The two new twin precast segmental bridges accommodate ten lanes of traffic (five in each direction) and a bike path. The Skyway is the segment of bridge between the self-anchored suspension bridge and Oakland Touchdown. It is made up of 452 deck sections and 28 columns. Its foundations are supported by steel and concrete piles. Piles are eight feet in diameter, driven 300 feet into the bay mud. Construction was recently completed on the Skyway in 2008, however, is not expected to open until the east side SAS bridge opens in 2013.

The 1,263-foot (385 meter) long SAS is a self-anchored suspension bridge that has main cables attached to the ends of the deck. The SAS span is a great solution for areas of unstable soils where anchorages would be difficult to construct. The eastern span replacement of the bridge uniquely has only one single tower. The construction of this SAS bridge includes the main cable that will serve as an incredibly strong sling. This main cable is in the process of being installed and consists of 114 cable bands that have been attached to the main cable. The cable will be nearly a mile long and is also the longest looped suspension cable in any bridge. The cable features 118 miles of two-and-a-half-inch steel strands and more than 17,000 millimeter wires, weighing a whopping 5,291 tons.

Photographer: Philip Dyer & Pavlo Vakhrushev / Photos.com

Load transfers are expected to start in late summer/early fall 2012. The SAS eastern span replacement of the Oakland Bay Bridge has been under construction since 2002 and is scheduled to open to traffic on or just after Labor Day 2013 at an estimated cost of $6.3 billion.

Piles play a vital role to ensure the safety of the bridge. The pile driving processes to create the foundation for the Skyway include 160 rebar and concrete piles to anchor the bridge. Each pile is 300-feet long by 8.5-inches in diameter and were driven into the earth's soil using a battering process which involved driving the piles under the water's surface into the soil at an angle which added a tremendous amount of stability to the structure. The battered driven piles play an important role that allow the bridge to have a larger amount of flexibility and movement in case of seismic activity caused by a vibration in the soil by an earthquake. This is the first time this method has been used for the construction of a bridge of this size.

Another innovative technology used in this project to ensure the safety of the bridge includes the installation of hinge-pipe beams which are similar to very large metal dowels that move within their sleeves during expansion or contraction of the decks which is caused by changes in temperature. These pipe-beams are 60-feet long and are installed in twenty locations between the deck sections, as well as where the Skyway and SAS meet. The beams are designed to absorb the energy of an earthquake by moving in their center with enough flexibility to minimize damage to the main structure of the bridge.

In addition to the hinge-pipe beams on the SAS bridge, another innovative component is a tower measuring 525-feet tall. This tower is constructed of four separate steel legs connected by shear link beams. The linked beams allow the legs to move independently and are designed to absorb most of the seismic energy while protecting the tower during

Another innovative technology to ensure the safety of the bridge includes the installation of hinge-pipe beams which move within their sleeves during expansion or contraction of the decks.

an earthquake. Support for the tower includes a massive marine foundation consisting of 13 drilled shafts extending 196 feet below the water surface anchoring into the bedrock. Support for the eastern end of the SAS includes another massive marine foundation that extends 340 feet below the surface. Supporting the western end of the SAS is a land-based foundation that is drilled down 80 feet into Yerba Buena Island.

Another project included in the bridge enhancements is located at the other end of the east span at the Oakland shoreline referred to as the Oakland Touchdown. High-tech seismic innovations have been included in its foundations. To reduce intense motion from dispersing through the bridge, columns are connected at the top and to the road decks. Flexible vertical piles are used as the foundations to absorb seismic forces more efficiently. Other projects on the bridge include installing hinge-seats to allow for greater movement on the area of the bridge that collapsed during the 1989 earthquake along with the replacement of the east span's original rivets with stronger bolts, viscous dampers, steel plates and later braces.

Multiple contractors were used for the series of innovative bridge enhancements and include numerous PDCA Members, such as MCM Construction for the Oakland Touchdown, Kiewit Pacific Co., a subsidiary of Kiewit Corporation, and Flatiron for construction for a portion of the Skyway Bridge. The SAS span contract was awarded to joint venture American Bridge/Fluor Enterprises as part of the largest public infrastructure contract in California history. ▼

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Herbert Hoover Dike Rehabilitation

Lake Okeechobee at the center of project to protect residents, businesses

The Herbert Hoover Dike (HHD) around Florida's Lake Okeechobee is undergoing considerable, long-term rehabilitation to fix issues that include flooding, seepage and leakage. A long-term, multi-phase overhaul, the HHD rehabilitation will protect residents and businesses on the southeastern edge of Lake Okeechobee by stabilizing and securing the aging dike from future severe weather events.

Lake Okeechobee, known as the second largest freshwater lake in the nation, covers 730 square miles. Drinking water is provided by the lake to communities in the area and to more than 6 million people living along the lower east coast. The lake is also a source of irrigation for a large agricultural industry that produces vegetables, citrus fruit, sugar cane and rice. The lake is also the gateway to the Everglades. Water flows into the lake from a watershed that includes the Kissimmee River. The lake features an average depth of nine feet, however, tropical storms and the rainy season can elevate the water to dangerous levels.

More than a century old, the dike originally built in the 1910s, has undergone numerous expansions in the 1930s, 40s and 60s in reaction to devastating effects of storms and flooding. Two hurricanes flooded the dike in 1947. The dike was expanded in the 1960s to create the current HHD. Regrettably, the dike is now falling into disrepair, rendering it incapable of withstanding extreme weather conditions. In addition, increased development has shifted additional water storage to Lake Okeechobee, and the dike, which historically stored water from a 4,000-square mile basin to the north, has undergone increased stress.

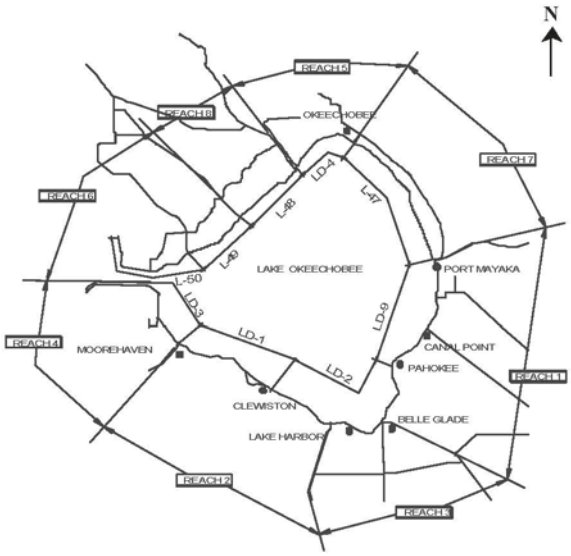


Figure 1: Reach Designations for HHD and Lake Okeechobee

Solution, plan in place

In 2007, the U.S. Army Corps of Engineers (USACE) declared the HHD one of the top six on the list of dams in the nation needing repair. The USACE Jacksonville District prioritized rehabilitation of dike segments that were identified as most vulnerable, focusing initial efforts to achieve the most significant impacts. Rehabilitation of the Hoover Dike consists of con-

Photographer: Linda King

struction of the cutoff wall and extension of the seepage berm and landside features.

Timeline

Work began on the cutoff wall in 2007 as an initial effort to stop existing internal erosion, known as "piping," and prevent further damage to the internal structure of the dike. This multi-phase project began on the wall where the risk is highest due to the southern side of the lake being near sea level – the threat of damage is greatest in the southeast quadrant. Bauer Foundation Corp. (BFC) is responsible for the HHD Cutoff Wall Construction Project which will be completed in three distinct phases:

- Phase 1 includes the construction and testing of a 500-foot demonstration section
- Phase 2 includes the construction and testing of a 12,000-linear foot section
- Phase 3 includes the construction and testing of a 4,000-linear foot section

In the first phase of construction, Reach 1, Jacksonville District is currently rehabilitating the dike's most vulnerable section, the 22-mile (35 kilometer) section along the southeast shore of the lake between Port Mayaca and Belle Glade, Fla. Work on this section is expected to be completed in 2013, at which time work will move to the south portion. The second phase includes Reaches 2 and 3, followed by Reach 7. The estimated completion date for the entire rehabilitation project is 2024.

Recent bidding

Bidding for replacement of Culverts 11 and 13 was recently posted on the Government Contract & Bid website (http://www.govcb.com) and had a due date of Aug. 26, 2012.

As outlined on the government website:

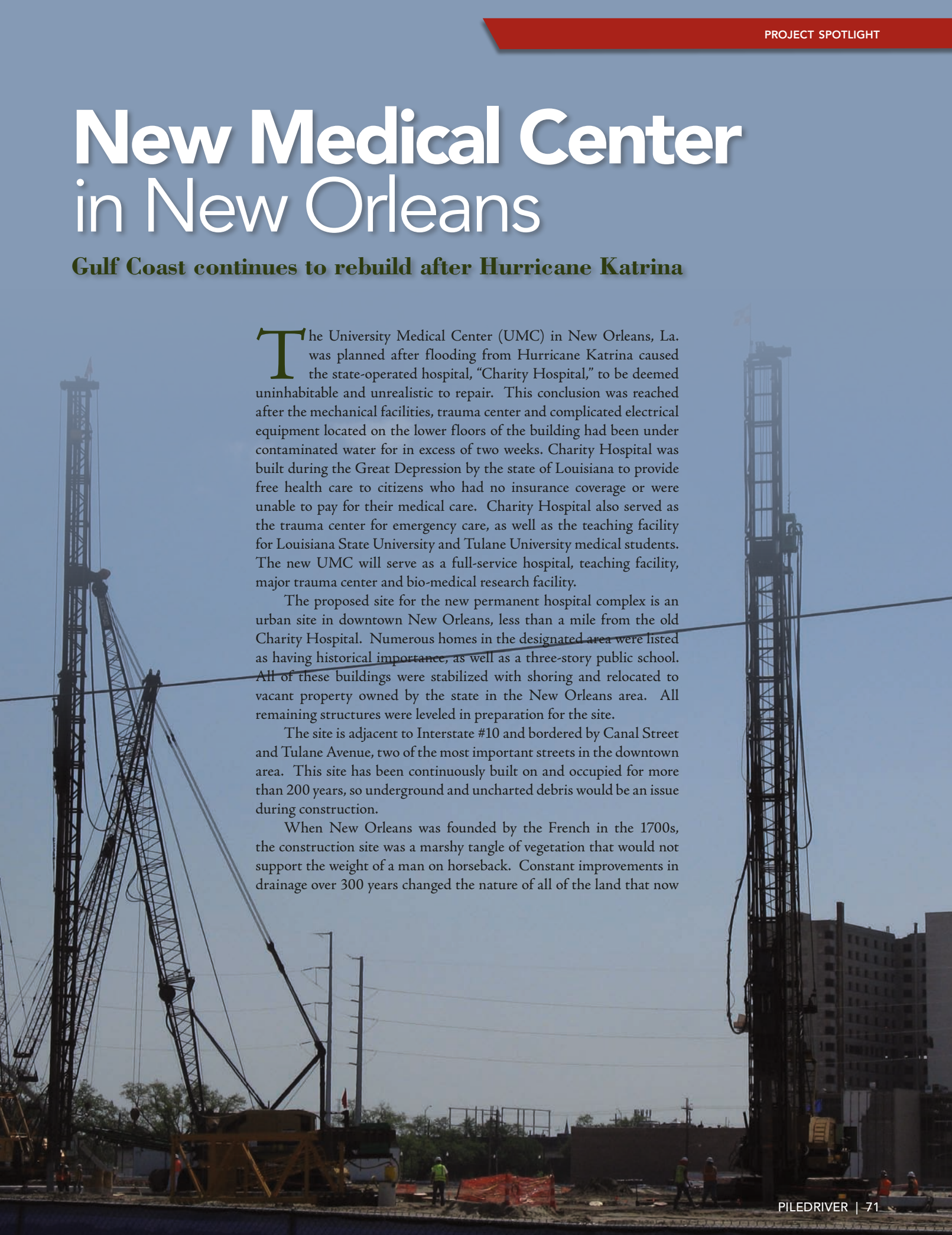
"DESCRIPTION OF WORK: The work includes demolition of existing Culverts 11 and 16, placing lengths of cutoff wall to close the existing gaps in the existing cutoff wall at the culvert locations, placement of new cast-in-place concrete culvert structures with gates and control systems at the same locations, and restoring the embankment. The cutoff wall at Culvert 11 must be completed and accepted within 18 months of Notice to Proceed. The work includes construction of cofferdams, dewatering, re-watering upon completion for the new culvert structures and removal of the cofferdams. Culvert 11 will include a combination driven pile/earthen cofferdam on the lakeside and a driven pile cofferdam on the lakeside. Culvert 16 will include an earthen cofferdam on the lakeside and a driven pile cofferdam on the landside. Construction access will be provided by utilizing the crest of Herbert Hoover Dike (HHD) at Port Mayaca, and driving south. After removal of the lakeside cofferdams, new groins will be constructed and new rip-rap installed at the culvert locations."

HHD rehabilitation will be underway for the next decade with an expected completion date in 2024.

Look in the next issue of *PileDriver* for scheduled information about new phases and bidding for this project. ▼

New Medical Center in New Orleans

Gulf Coast continues to rebuild after Hurricane Katrina



The University Medical Center (UMC) in New Orleans, La. was planned after flooding from Hurricane Katrina caused the state-operated hospital, "Charity Hospital," to be deemed uninhabitable and unrealistic to repair. This conclusion was reached after the mechanical facilities, trauma center and complicated electrical equipment located on the lower floors of the building had been under contaminated water for in excess of two weeks. Charity Hospital was built during the Great Depression by the state of Louisiana to provide free health care to citizens who had no insurance coverage or were unable to pay for their medical care. Charity Hospital also served as the trauma center for emergency care, as well as the teaching facility for Louisiana State University and Tulane University medical students. The new UMC will serve as a full-service hospital, teaching facility, major trauma center and bio-medical research facility.

The proposed site for the new permanent hospital complex is an urban site in downtown New Orleans, less than a mile from the old Charity Hospital. Numerous homes in the designated area were listed as having historical importance, as well as a three-story public school. All of these buildings were stabilized with shoring and relocated to vacant property owned by the state in the New Orleans area. All remaining structures were leveled in preparation for the site.

The site is adjacent to Interstate #10 and bordered by Canal Street and Tulane Avenue, two of the most important streets in the downtown area. This site has been continuously built on and occupied for more than 200 years, so underground and uncharted debris would be an issue during construction.

When New Orleans was founded by the French in the 1700s, the construction site was a marshy tangle of vegetation that would not support the weight of a man on horseback. Constant improvements in drainage over 300 years changed the nature of all of the land that now

comprises New Orleans outside of the original French Quarter. The French Quarter area was selected by the French because it was the high ground, located on the Mississippi River. The water table at the construction site has remained very high in spite of drainage improvements completed over hundreds of years of habitation. The moisture content of the soil, and the low bearing capacity it provides, were the biggest challenges for the foundation design.

Gulf South Piling and Construction, Inc. was selected by Skanska/Mapp to handle the test pile program and later assigned the driving of all concrete and timber piles for the multiple buildings in the UMC project.

Because of the soil conditions and the need for careful placement and control of the piles, fixed extended leads were an absolute requirement. Five sets of ICE®, 32-inch fixed/extended leads with side mounted augers and hydraulic spotters were supplied. ICE®'s engineering department was assigned the task of designing three custom boom point connectors to fit the various boom sizes and types; these added to Gulf South Piling and Construction's equipment pool, which already included several sets of fixed/extended lead systems. All leads, auger track and custom components fabrication was expedited in order to meet the important start-up schedule for the UMC project. As engineering determined the need for pre-drilling to decrease stress in the concrete piles that made up the foundation design, Gulf South Piling and Construction requested that ICE® supply them with additional augers for the project. Gulf South Piling and Construction used ICE®, model #760, #HS-7, #1250, & EX-25 top drive augers for the five fixed lead rigs driving 14-inch pre-stressed concrete piles.

Gulf South Piling and Construction, Inc. drove the following piles as part of their contract at UMC:

- 4,270 – 14-inch square, pre-stressed, concrete piles from 68-feet to 86-feet long
- 492 – 14- inch square, pre-stressed, concrete piles from 158-feet to 162-feet long, with Kie-Lock mechanical connectors
- 1,770 – 65-foot treated timber piles

Based on an extensive test pile program, utilizing GRL Engineers, Inc. energy and stress measuring equipment, engineers specified the use of multiple air hammers to handle the driving of the various piles with the energy rating and ram weights correlating to the bearing requirements of the individual piles.

ICE® sales personnel were involved with stress analysis interpretation, equipment application selections and recommendations for this project. It was required that service personnel were involved in keeping all of the equipment on this site operating to their maximum potential in order to keep production schedules required by the general contractor. ▼

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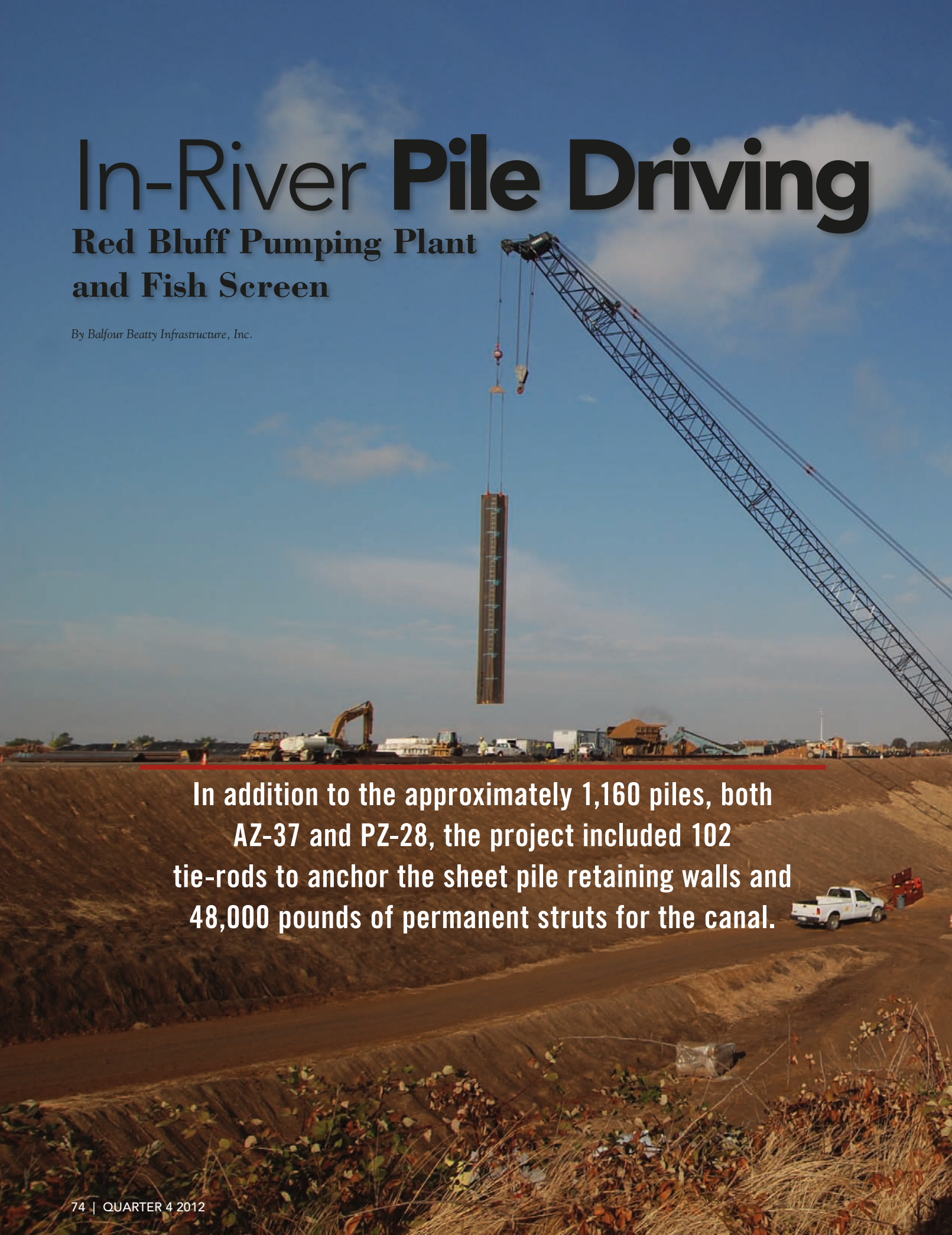
Red Bluff Pumping Plant and Fish Screen

By Balfour Beatty Infrastructure, Inc.



In addition to the approximately 1,160 piles, both AZ-37 and PZ-28, the project included 102 tie-rods to anchor the sheet pile retaining walls and 48,000 pounds of permanent struts for the canal.

Balfour Beatty Infrastructure, Inc. received the Notice to Proceed (NTP) on the Red Bluff Pumping Plant and Fish Screen on May 25, 2012 and was required to deliver 1,125 cubic feet per second of water to the Tehama Colusa Canal Authority in less than two years. This new fish screen and pumping plant delivers irrigation water to the Colusa and Corning canals and eventually 150,000 acres of crop in four counties.

This project involved a nearly quarter mile-long sheet pile cofferdam in the Sacramento River for construction of the new fish screen. This in-river pile driving began in September 2010 and had to be complete by Jan. 31, 2011 to minimize the environmental impacts. Excavation of nearly 150,000 cubic yards of contaminated material in the pump station's forebay complicated access to the cofferdam. The 505 sheet pile pair cofferdam was installed from the river bank utilizing a Manitowoc 999 Crawler Crane, a Terex HC 230 Crawler Crane, an ICE® 66-80 vibratory hammer, an APE 200-6 vibratory hammer, a D-30 and a D-36 impact hammer.

The driving templates were left in place and used for the cofferdam's supports, allowing it to be completed weeks before the January deadline and allowing each of the 29 18-inch pipe piles for the new log boom to be installed within the first in-water work period.

As the cofferdam piles were being installed, a Manitowoc 12000 was installing 154 pairs of PZC-28 sheet piles at the new pumping plant location to be used as temporary support during

the 30-foot deep excavation. Construction progress was challenged by the unusually wet November and December of 2010 and exceptionally hard Tehama formation, where the standard penetration resistance was as high as 50 blows per .3 of a foot.

After completion of the cofferdam and temporary supports for the new pumped plant, the cranes went to work installing about 400 of the remaining 500 sheet piles for retaining, tie-back and canal walls. Installation of these piles remained a challenge, coordinating with many phases of excavation and fill. There were also two additional pipe piles installed for a floating dock.

Installation of the remaining 100 piles was halted while crews placed over 20,000 cubic yards of concrete between March and November 2012. Pile driving was completed in January 2012 during installation of the nine government-furnished pumps.

In addition to the approximately 1,160 piles, both AZ-37 and PZ-28, the project included 102 tie-rods to anchor the sheet pile retaining walls and 48,000 pounds of permanent struts for the canal. There was a new switchyard constructed and a partial clean closure of a nearby landfill. There was roughly 500,000 cubic yards of excavation for the new fore bay. The new fish screen included 60 bays of fish screens, four fish screen cleaners, a sediment jetting system and tuning baffles.

The pumping plant consisted of 11 pumping bays, with seven 84-inch pumps and two 60-inch pumps. There was also a shift in March 2011, changing five of the original soft starters to variable-frequency drives. This change resulted in a more efficient final product for the owner.

The largest obstacles of this project were a schedule of less than two years and access for the numerous activities that had to be accomplished at the same time.

The schedule obstacle was overcome by working two shifts during construction of the pumping plant as well as a close relationship with the owner and engineers, allowing issues to be resolved quickly. The access issues were overcome by cutting out sheet piles for access roads into both the cofferdam and the pumping plant. The project also overcame an unusually high Sacramento River level in March 2012 when the river elevation was even with the top of the cofferdam. The cofferdam withstood this flooding without an issue and the project was back to normal operation within the week.

The project was successful and delivered the 1,125 cubic feet of water per second on schedule, just shy of two years from the NTP. ▼

Up-and-Coming in Brazil

A brand new infrastructure for a growing country

Brazil is the largest country in South America and covers nearly half (47 percent) of the South American continent. It is currently the fifth largest economy in the world, is home to the Amazon rainforest and is a popular location for tourism. Brazil is also rich in natural resources and active in world issues such as climate change, giving it significance on a worldwide scale. The next four years will be monumental for the country as they have been named host to both the Fédération Internationale de Football Association (FIFA) World Cup in 2014 and the 2016 Summer Olympics. These exciting opportunities also present challenges to the nation as they are forced to step up their lacking infrastructure. These challenges also represent a blessing in disguise.

2014 FIFA World Cup

Brazil is the host of the twentieth FIFA World Cup, an international association football tournament, scheduled to take place from June 12 to July 13, 2014. Construction work at the 12 stadiums that will host the tournament's games is progressing smoothly and on schedule. Media reports of delays and tight deadlines for stadium construction have been dismissed by the sports minister of the country. Work in the northeastern city of Salvador will be completed in time for next year's 2013 warm-up competition, the FIFA Confederations Cup. Many of these stadiums will also host the 2016 Summer Olympics.

Maracanã Stadium, *Rio de Janeiro* – upgrade

The centerpiece venue for the international soccer tournament, the 90,000-seat giant Maracanã Stadium, is undergoing a major upgrade and will be the biggest stadium of the World Cup. The Maracanã will host the final match of the event. Renovations on this five-story stadium are well on the way to completion and the venue is expected to reopen in December 2012; its historic façade will remain, but it will be improved with a new roof and restructured seating to meet the guidelines of FIFA. The reconstruction of the Maracanã is the biggest of all 12 stadiums for the World Cup with an estimated cost of R$620 million (about USD $300 million). Renovation for this project is under Odebrecht Infrastructure (http://www.odebrecht.com.br/en), with the contract for the roof of the stadium awarded to SEPA and Hightex Group PLC (HTIG), headquartered in Bernau, Germany. When complete, the Maracanã will be much larger than before, expanding from 112,000 to 124,000 square meters of built area and will include high-tech lighting, sound and visual equipment. There will be 16 escalators, 60 service bars and 238 toilets. The parking area will hold 358 vehicles. The Maracanã is also the site of the opening and closing ceremonies for the 2016 Summer Olympics.

Continued on page 79

Maracanã Stadium, Rio de Janeiro
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Map photographer: Marcio Silva / Photos.com

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National Stadium, *Brasilia* – rebuild

This stadium is the second largest of the 12 and is undergoing an overhaul and name change. Presently called Mané Garrincha Stadium, it now seats 40,000 people and when finished will seat approximately 70,000. The venue is expected to host the opening match of the 2013 FIFA Confederations Cup as well as seven World Cup games, including a quarter-final and third place game. It is set to be the most expensive venue of the World Cup stadiums at an estimated cost of R$696 million (about USD $400 million). Contractors for this venue are Andrade Gutierrez and Via Engenharia, who expect to have it ready by December 2012.

Mineirao, *Belo Horizonte* – upgrade

Originally built in 1965, this facility will be getting a complete overhaul utilizing 1,700 workers. When complete, it will seat 69,650 and will be hosting six matches at the World Cup, including one semi-final. The overhaul includes the removal of the running track and lowering of the pitch by three-and-a-half meters to improve sightlines. The renovations will better stadium accessability and functionality as well as enable the capture and storage of up to 6,270,000 liters of rainwater. This stadium was designed by GMP Architects, a German company, at an estimated cost of R$608 million (nearly USD $300 million).

2016 Summer Olympics

The 2016 Summer Olympics will be hosted by Rio de Janeiro, Brazil from Aug. 5 to 21, 2016. The 2016 Summer Paralympics will also be held in the city and are scheduled to be held from Sept. 7 to 18.

The famous borough of Rio de Janeiro, Barra da Tijuca, will host most of the venues of the Olympics and Paralympics in 2016. The rest will be located in three other areas of Rio de Janeiro: Copacabana Beach, Maracanã and Deodoro; Barra da Tijuca will also house the Olympic Village. The host sites and their corresponding events for the 2016 Summer Olympics are:

1. Maracanã Stadium – the opening and closing ceremonies
2. Engenhão (João Havelange Stadium) – athletic events
3. Maria Lenk Aquatic Center – diving, swimming, and water polo
4. Copacabana Beach – marathon swimming, triathlon and beach volleyball
5. HSBC Arena – artistic and rhythmic gymnastics, basketball and trampoline
6. Sambadrome Marquês de Sapucaí – marathon and archery
7. Maracanãzinho Gymnasium – volleyball
8. Lagoa Rodrigo de Freitas – rowing and canoeing

Airport upgrades in progress

The future of Brazil's infrastructure is prominent. Residents and tourists alike are sure to love the country's infrastructure improvements. Economic turnaround from the many tenders given will take some time but it will help in giving Brazil highly publicized exposure while the country grows exponentially. For the many tenders that are made, Brazil's federal government has turned to public-private partnerships (P3s). Operating this way will decrease the risk for construction costs, any delays in schedule and long-term costs; and maintenance will now be on the private sector organization.

The opportunity to host two of the biggest sporting events in the world presents itself as a tremendous achievement to the nation but it also presents enormous problems, if adequate preparations are not made. Tensions can increase if flight delays and cancellations come about as most fans will need to fly in order to get from one event to the other. If airports cannot keep up with the traffic, the country risks embarrassment on a global level. Time is of the essence for Brazil's troubled airport infrastructure.

McKinsey Management Consultants reports that the number of airline passengers in Brazil has increased from 68 million in 2000 to 113 million passengers in 2008, with 13 of the 20 airports already experiencing overcrowding and plane congestion. Cancellations and flight delays are natural occurrences at these airports; Brazil won't be able to handle the status quo for much longer unless changes are made. Economic increases have grown Brazil's airline travel thanks to the expansion of the country's middle class; the past two years have posed a 35 percent increase in air travel alone. The World Cup is estimated to bring approximately 6 million guests and athletes. Other reported estimations by McKinsey predict that by 2014, some 152 million travelers will be coming and going from Brazil's international airports.

In order to move forward with revamping these projects, Brazil's federal government turned to P3s as well. Three bidders were awarded the concessions for three of the country's biggest airports. Invepar-ACSA Consortium won the projects at the Sao Paulo Guarulhos International Airport; Inframerica, which consists of Brazil's Grupo Engevix and Argentina's Corporacion America, was awarded the Brasilia International Airport concession, which is the third largest in the country. The consortium awarded the Viracopos International Airport concession is Aeroportos Brazil and France's Egis airport operation. Viracopos is marked as the ninth largest facility but has the potential to become South America's biggest aviation hub.

The Sao Paulo Guarulhos International Airport covers 8,558 miles servicing over 26 million passengers annualy and is the largest airport in Brazil. Currently, the airport's structure has two passen-

Photographer: cokada / Photos.com

ger terminals and 260 check-in counters. Projects for the modernization include a third terminal, the construction of a third runway and new taxiways.

Infraero announced its upgrade and expansion plans for Brasilia International Airport in 2009. They have broken their plans down into two phases; the first phase includes renovations to the airport's taxiways and the complete modernization of passenger terminals. In the second phase more expansions will be geared toward passenger terminals an additional 1,200 square feet will allow the airport to accommodate 1 million more passengers each year. New parking lots are also in the works for the second phase. Along with new ramp areas is the revamping of sanitary facilities, a new inspection room located in the landing area, extensions to the departure lounge and a new elevator will be built. This phase will increase the airport's infrastructure area from 80,000 to 175,000 square feet. The great increase in space will allow long-term use of the airport to handle over 30 million travelers a year.

The Viracopos International Airport serves more than 7 million passengers annually and is the second busiest cargo airport in Brazil and the largest in Latin America. Projects in modernization of the airport include new runway parking lots and a new terminal. The new passenger terminal will feature an enormous expansion of 190,051 to 568,596 square feet. The expansion completion date will be just in time for the FIFA World Cup with full use of the terminal available by the end of 2013 and into early 2014. Because Viracopos has been known for its logistics hub, many new additions will be made to this area of the airport. The expansion will be finished in two phases: the first phase of the project has been geared toward the construction of a cargo terminal and another terminal strictly for constrained cargo. The second phase is to expand on national and international cargo areas which include a new 10,000-square foot courier cargo terminal. The Brazil Airport consortium will spend at least $5.06 billion in the next 30 years toward the continuation of airport improvements.

As of May 24, 2012, five of the 31 airport projects for the World Cup were completed. Projections are for 26 of the planned projects to be completely finished by the end of 2013 with the remaining five projects to be finished in the first half of 2014, right before the World Cup arrives. Brazil's infrastructure has been on hold for far too long and it is because of these two historic events that the county's economic future remains promising. Once all projects have been completed, 13 of the airports are expected to increase in occupancy from 141 million to 259 million passengers per year, giving Brazil an airport infrastructure that, at last, can support the needs of its people and economy.

Highway infrastructure updates on the horizon

Airport upgrades are just one-half of the major infrastructure changes that are necessary to the success of these two events. Brazil's highway infrastructure is in need of an enormous overhaul as well. Using the P3 model, the goal is to have the needed improvements completed before the summer of 2014.

Brazil's roads and railroads were primarily linked to production centers like sea ports and the closest major urban cities. With the need to produce more in the late-80s, Brazil developed a master plan for a national road system connecting various parts of the country. Unfortunately, this program was put on hold due to the high cost of construction and maintenance.

Brazil's national highway network measures 1,670,148 kilometers long with only 161,503 kilometers paved, leaving 1,508,645 kilometers covered in gravel or dirt. This means only about 10 percent of Brazilian highways are paved and 83 percent are either in poor or terrible condition. The average transportation speed is 40 percent slower in Brazil than in developed countries. Brazil's roads make up the primary mode of transport accounting for 60 percent of freight transport and 95 percent of passenger traffic. Based on such an inefficient scenario, the highway sector should be receiving the greatest amount of investment in the country.

Now, decades later, the master plan is finally under way. Thanks to the 2014 World Cup and the 2016 Summer Olympics, a major push is now helping the country make vast moves in the next two to four years to bring Brazilian infrastructure up-to-date.

Major highway and airport infrastructure changes will be made to include a high-speed train called the Bullet Train, currently underway. Critical improvements will be made on key roads in Brazil's Parana State. Sixteen stretches of road totaling 4,800 kilometers will be repaired and maintained to improve safety and signals along the highway. Other repairs include preserva-

tion work, cleaning of drainage systems and overall road improvements. Road work alone is expected to cost $29 million.

Other jobs include the widening of 65 kilometers of federal highway BR-101 in the northeastern state of Alagoas.

In the southeastern part of Brazil, 80 kilometers of road work will be undertaken as part of the highway expansion program.

To date, the Espirito Santo Highway is measured at 6,000 kilometers with 3,200 kilometers currently paved. In February 2013, a $6-million tender will be used for environmental restoration. Afterward, another tender worth $2.6 million will be implemented for IT equipment, followed by an additional $391,179 tender for a state highway patrol station.

Contributing companies

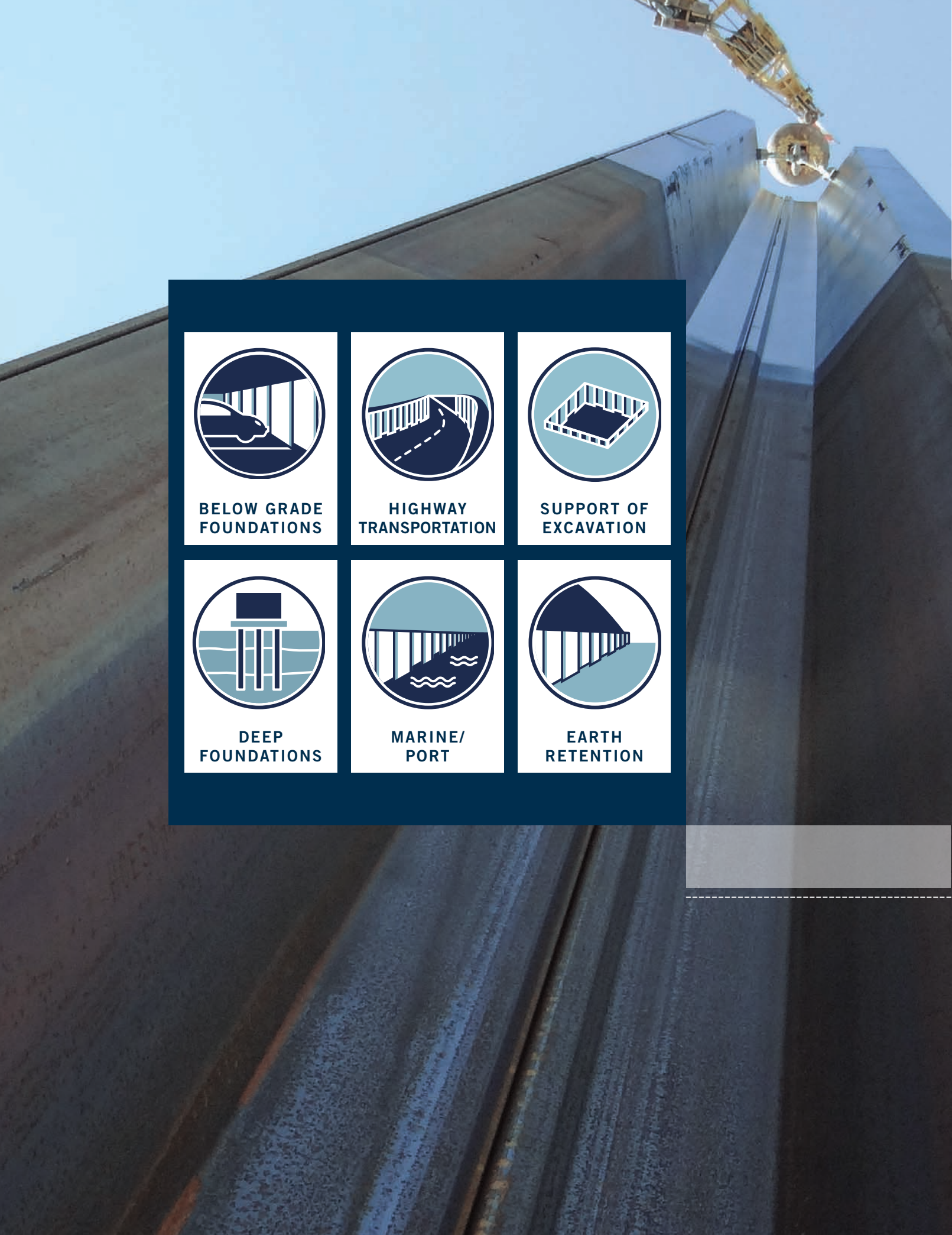
A lot of dedication and commitment is critical to the revamping of one of South America's most competitive markets. Key players will be involved in the future of this nation and although limited information is available, some companies stand out more than others when it comes to the contribution of these major projects.

Engevix may be one of those companies. For the past five years, Engevix has been a part of project designs and has delivered 600 kilometers of highway duplications, refurbishments and modernization of existing highways all over Brazil. The company has also connected major highways surrounding Sao Paulo with the construction of the Mario Covas beltway. The Porto de Sao Sebastiao, a critical project which expanded the operational capacity of the export corridor, has been worked on by Engevix as well. These improvements have happened along with the duplication efforts of the SP-099, the Taminos highway and also the Nova Transposicao of the Serra de Caraguatatuba Mountain Range. With substantial challenges, such as overcoming a 500-meter overpass to then create three tunnels, a project of such complexity is only for a company with the experience of Engevix.

Another top contender for the development of Brazil's infrastructure is Odebrecht. The company is currently preparing for the World Cup by constructing and revamping four of the major stadiums, including Maracana, which will also be the primary stadium for the 2016 Olympics, as previously mentioned. The company also provides construction and engineering services by participating as an investor in new businesses and focusing primarily on urban transport, airport sectors, logistics and highways. Brazil's infrastructure guru was awarded the Most Admired Company in Brazil Award for the construction sector and the Leading Company title among the 500 largest companies in the same industry by *O Empreiteiro* magazine.

Companies like CZM Foundation Equipment will need to contribute full production efforts and even overtime in order to provide for Brazil's infrastructure projects alone. The provider of intellectual solutions in foundation equipment has the potential as well to become a key player in developing and manufacturing the equipment needed for Brazil's massive infrastructure venture.

Big events for Brazil lead to an increase in attention toward areas in the country that seemed forgotten. As a result, the South American nation can look forward to promising progressions as more investors look to its strong economic fundamentals as one of the biggest emerging markets in the world. ▼



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Sao Paulo Takes Long Strides toward 2014 World Cup

The construction of the stadium which will stage the world's biggest soccer tournament has the support of a diverse group of companies

In October 2011, it was officially announced that the opening of the 2014 World Cup will be held in Sao Paulo, Brazil. As a result, the construction of the Sport Club Corinthians Paulista Stadium, located in the Itaquera neighborhood on the east side of Sao Paulo, began at full swing.

The stadium will have the capacity to hold 48,000 people, plus 20,000 in the stands in an area of 200,000 square meters.

The first pillars were driven in July 2012 and on Sept. 1, the day of the club's centennial celebration, three pillars were installed for a total of 500.

The project has 61 pillars installed in the field and 84 beams that will hold the rings of the bleachers.

The project in Itaquerao is using seven CZM hydraulic hammers, operated by different customers. These companies, with branches in different parts of the country, are driving the precast piles of Scac.

Construtora Norberto Odebrecht is the company responsible for the management of the foundation. The piles of the Scac have gauges of 50 centimeters and are driven with equipment pestle of five tons E5000HH, which at the same time are installed on hydraulic excavators of 20 tons like the Cat320DL. As the 70 centimeter-gauge piles are driven by hydraulic hammers EM8000HH of seven tons, they are mounted on hydraulic excavators of 30 tons such as CAT336DL. In Itaquerao, depths range from eight to 22 meters in segments of up to 12 meters and the equipment also performs at an incline angle of 14 degrees with piles of 70 centimeters in diameter, which results in versatility and safety in these applications. According to Romeo Falci, the director of the Stack Company which has three hydraulic hammers model EM5000HH CZM (equipped with five-ton pestles) in operation on the project, several aspects of the equipment should be considered in comparison to traditional equipment.

The hydraulic hammers in operation in this project ensure mobility because the different stages of execution require constant movement, which would be impossible for traditional piles on rolls. Furthermore, the dynamic load tests performed until then, found an efficiency of transmission of energy from the hammer of up to 90 percent, compared to about 40 percent for mechanical hammers. This performance, combined with the inexistence of eccentricity, gives high productivity and a low index of broken pegs.

Driving control, with the drop height and frequency of strikes set in the cabin through the control panel, the hammer guarantees to adhere to the parameters defined by the soil consultant.

Photographer: Konstantin Yuganov / Photos.com

Photographer: Marcio Silva / Photos.com

Falci also explained that the safety aspects for specialized and small teams added to the quality of the equipment and met the security requirements by minimizing the occurrence of accidents. According to the commercial director of CZM, Marcos Clo, the increase in orders for hydraulic pile hammers in the production line is the result of the demand for modernization from the consumer. There are 119 machines working on the job and 925 workers, with a peak of 1,800 in the second half of 2012.

The two lines of ducts from Transpetro which cross the basement of Itaquerao carrying light oil products such as gasoline, kerosene, aviation fuel and engine oil, are being diverted by a subsidiary of Petrobras. They will go around the site, passing through an area where there aren't any buildings.

The entire cost of this part of the project will be funded by the Sport Club Corinthians Paulista, a Brazilian multi-sport club based in Sao Paulo. The club bought 92 ducts of 22 inches and they are being located on the highest part of the site. After the conclusion of the installation, the old pipeline will be withdrawn.

The development of the region to the east of Sao Paulo was always slow in relation to other regions, both in structure, equipment and job offers. This project will help promote businesses, and also the city, according to Sao Paulo's Municipal Secretary for the FIFA World Cup 2014, Gilmar Tadeu.

Besides the stadium itself, diverse projects such as the construction of a technical school (ETEC), a division of technology in Sao Paulo (Fatec), the creation of the Linear Park of Rio Verde as well as projects for urban access aiming to integrate public transportation will also be built around it.

According to Odebrecht, 2,720 of the 3,200 piles needed have already been driven and therefore the stadium is well on the way to completion.

More than 460 concrete blocks and 30 beams have been installed in the stands on the lower east side of the building. The beams for the stands are made of precast concrete and manufactured on-site. For the work to be ready by Dec. 13, a graveyard shift has been scheduled where workers concentrate on the fabrication and installation of precast components and concrete blocks. ▼

This article originally appeared in the March 2012 issue of *Revista Fundações & Obras Geotécnicas*.

Photographer: Witthaya / Photos.com

Thailand Experiences Worst Floods in Over a Half Century

$9.45 billion to be invested in water projects all over the country

In 2011, Thailand experienced its worst flooding in 50 years, costing millions of dollars and the death of hundreds of residents.

In July, serious flooding started due to heavier than normal rainfall. Water levels in the Bhumibol and Sirikit Dams were not controlled due to lack of monitoring combined with difficulty in predicting rainfall and the downward slope of the land.

Geographically sloped, the massive amounts of rainwater from the north naturally flowed southward toward the Gulf of Thailand and even to the capital where the 9 million people of Bangkok sought to be spared.

To date, over 900,000 families and businesses have been impacted, with over 800 lives lost. Flood waters have covered approximately two-thirds of the country, submerging rice fields, auto plants and technology companies. Two hundred factories had to close their doors due to the flooding in central Thailand, the province of Ayutthaya and Bangkok. Some major businesses affected were Toyota, Honda and Western Digital Corporation. The floods have cost the economy over $40 billion.

National relief efforts have focused on providing essential food, clean water and shelter. Organizations such as The Water and Flood Management Committee (WFMC) are helping restore damaged infrastructure to the country.

$9.45 billion in projects to private firms has been offered for proposals on sustainable water management and flood prevention systems. The funding would go toward eight projects targeting the Chao Phraya River Basin. Six of these projects are for water basins and one project for the coastal areas. Floodways and water-retention areas will be designated with more urban expansion to be constructed in low-lying areas. The WFMC is planning a dam and reservoir project for large-sized dams in the Yom and Sakaekrang river basins. This will be the first time flood prevention action will take place at these parts of the country.

One of measures WFMC is implementing is raising the overall height of roads

from one to one-and-a-half meters, which will enable them to act as flood walls.

Italian-Thai Development PLC (ITD) has been appointed the design-build contractor for a floodwall project that includes 46 miles (74 kilometers) of precast concrete sheet pile to act as a flood prevention wall around the entire Rojana Industrial Park, where automotive giants Toyota and Honda have their factories located.

The race was on to close off the industrial park by the 2012 monsoon season which typically begins in September. ITD addressed the challenge of this tight deadline by simultaneously starting various sections of the concrete walls in order to complete this phase of the project on time. ICE® Far East, working in conjunction with its partner, Tat Hong Thailand (THT), secured the contract to supply 15 units of the ICE® model 416L hydraulic vibratory hammer for this phase of the project. THT is providing the crawler cranes required to handle all of the vibratory hammers as well as the concrete sheet piles.

Each section of the concrete wall is made of precast concrete that is poured in Thailand. The concrete piles are 10 meters long by one meter wide. The ICE® model 416L hammers are able to drive them to the desired depth of seven meters in only eight to ten minutes per pile. The ICE® hammers drove the piles so fast that the concrete suppliers could not find a way to make the sheets fast enough to keep up. The project has several phases that will last for years to come, however the speed of the ICE® model 416L presented the optimum solution to this initial phase of securing the industrial park in time for the 2012 flood season.

As a preventative measure for future flooding in Thailand, a flood prevention plan has been put into place that involves continuous monitoring of rainfall and alerting residents when flooding becomes imminent. Under the plan, water sources have been divided into three significant areas. Retention areas of the middle section of these rivers will be built. Another section will be geared toward the downstream regions where canal embankments will be reinforced. Flood disaster drills will also be a part of this vital flood prevention plan.

Despite the flooding of 2011, the economy of Thailand to date is progressively increasing. Thai Deputy Prime Minister Kittirat na Ranong is confident that growth since the flood could reach seven percent in the upcoming years. With companies back in full force, continuing government aide and the increasing rate of investment spending due to reconstruction, efforts will persist to pick up headline growth. ▼

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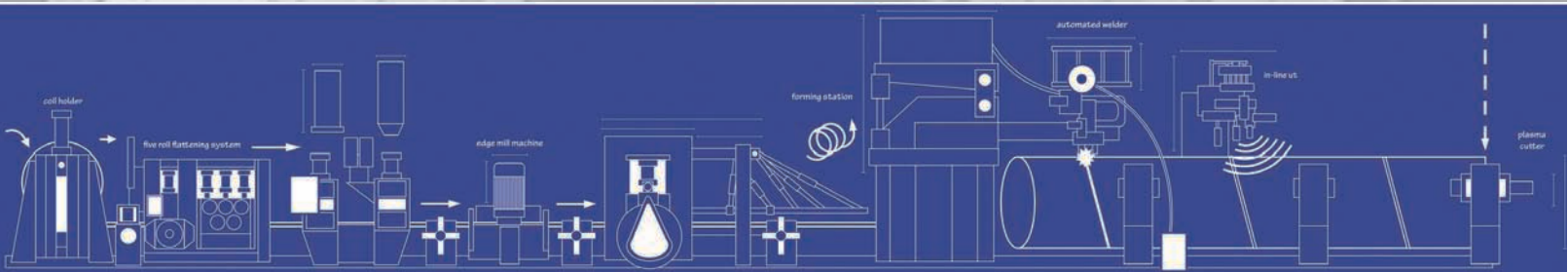

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ICE® 8E Excavator Mounted Hydraulic Vibratory Driver/Extractor in action in Brazil

The ICE® 8E Excavator Mounted Hydraulic Vibratory Driver/Extractor was used in order to assist the installation of an underground sewer pipe in Belo Horizonte, Brazil. This new installation replaces the exposed pipe to control the flowing stream of dirty water which also assists in minimizing the erosion to the canal that is caused every time it rains. ICE® dealer, CZM, set up the ICE® Excavator mounted drill model 8E with an optional goose neck attached to the Hyundai Rollex 360 LC excavator. Contractor, Vilasa, located in Brazil, undertook the project that involved installing new sewer pipes along a canal.

In preparation for the installation of the new sewer pipe, the project began by excavating the buried pipe, then using the 8E to drive temporary 40-foot long steel sheet piles, a necessary precaution that prevents future damage and a potentially dangerous mudslide, while holding the hillside in place. Conditions of the grounds are hard clay which can cause quite a few challenges on top of other obstacles Vilasa has to face.

Vilasa's biggest challenge was to keep the surrounding buildings intact while digging a trench for the new pipe. One idea was to get a crawler crane on the job site but it was not accessible. However, using the 8E made this process much easier than using the crawler crane, as it has the required power to drive the necessary sheet piles.

The successful completion of this 18 to 24-month project gives local residents peace of mind by keeping water flowing properly with minimal erosion to the canal. For more information on this project please visit www.vilasa.com.br or www.iceusa.com. ▼

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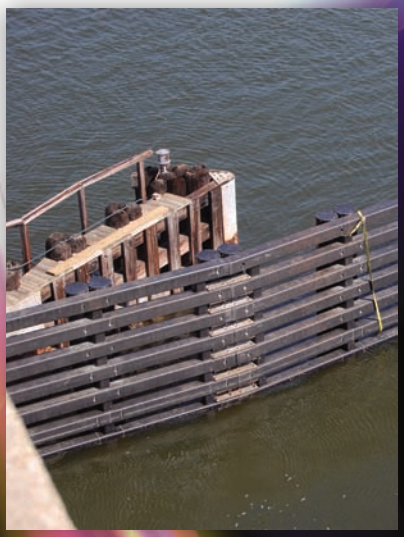

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Living Legend

Success lies in people and courage to evolve in ever-changing industry

By Heather Hudson

In 1950, Tommy Parker, owner of Parker Marine Contracting in Charleston, S.C., started out with a drop hammer "that you picked up and dropped." Today, his company boasts ten cranes, 12 hammers and 12 acres of waterfront property, barges to carry the cranes, their own prestressed concrete plant and "best of all, some very good people."

If that's not a success story, we're not sure what is.

He says the secret to his accomplishments in the industry is simple: "You have to be fair and just with everybody. And you have to surround yourself with employees who have initiative and a desire to do bigger and better things."

Of course, high-quality pile driving has something to do with it, too. Parker's first job was building residential wood docks in the Charleston area before branching out to timber pile driving work. It being the 1950s, all of their pile driving work was carried out with 25-ton Lima cranes and drop hammers or small steam-driven Vulcan hammers. The Charleston area is littered with structures still standing strong on some of the composite foundation piles they began using around 1955.

"I would like to think we brought the concrete pile business to Charleston," he said, noting that he was in heavy competition with Raymond Concrete Pile Incorporated for many years before the latter went out of business.

> **"I would like to think we brought the concrete pile business to Charleston."**
>
> – *Tommy Parker, Owner, Parker Marine Contracting*

In the 1960s, they were invited to bid a large pressed concrete pile job for a pier for the Georgia Port Authority. When they got the job they built the prestressed concrete pile plant in Savannah, Ga. and officially entered the prestressed business.

"When we successfully performed a 100-ton static load test at a huge expansion project at the Georgetown paper mill, we greatly opened up market acceptance of prestressed concrete pile in the area," he said. "Previous to that, many design professionals weren't convinced that this type of pile could economically handle the still increasing loads required."

Other highlights of their years in business is the introduction of the first diesel hammer to the area with Link-Belt Speeder 520. With it, the scope of their work expanded to include bridges, large concrete piers for the Navy, marine ender systems for the DOT and utilities for regional power companies.

In 1988, Tommy's son, John T. Parker Jr., returned to the business, joining a cluster of employees, many of whom are still there today.

"The majority of our employees have been here for 25 years. We wouldn't have been able to grow like we have without them. My son and I get along extremely well together. He is learning the business and he thinks he's running it and I haven't told him any different. He does what needs to be done and I look over his shoulder," he said.

Though mostly pleased with the advances in equipment over the years, Parker says hydraulic hammers "have too many working parts."

He may or may not be right, but who's going to argue with a living legend? ▼

Photographer: Svetlana Ivanova / Photos.com

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Promoting the Driven Pile

Founding chairman of the PDCA always an industry advocate

By Barb Feldman

The driven pile industry was losing market share to the auger-cast industry when a small group got together to form the Pile Driving Contractors Association (PDCA) in 1996, recalls Bob Brode, its founding chairman. He smiles at the suggestion that he is a PDCA "distinguished pioneer" and is modest about his own contribution.

"PDCA gave us the opportunity to promote the driven pile—since I had experience in both the sale of pile hammers and the use of them as a contractor, I could wear both those hats at the same time … It was really Dr. George Goble's brainchild," he said. "He, Tom Wysockey and Chuck Whittaker were all founding members with me and were instrumental in getting the PDCA put together. They wanted someone with experience as a contractor, but also wanted some representation from the pile driving equipment industry."

His family's contracting business, The W. M. Brode Company, had been founded in 1887 by his great-grandfather Wilson Monroe Brode in Newcomerstown, Ohio at the intersection of two main railway lines, the east-west Panhandle Line of the Pennsylvania Railway and the now-defunct north-south Cleveland and Marietta Line. Brode worked summers there during high school and college and always intended to join the company full-time after finishing his math and engineering studies at Ohio State University. But when his father died and the company's general superintendent fell ill, he decided that the family business needed him more in the field as a manager than as an engineer and he became superintendent of the general construction company after completing his military service.

> **"The single-acting diesel pile hammer was the first minor revolution in the pile driving industry."**
>
> – Bob Brode

In the late 1950s, the Brode family, through its Foundation Equipment Corporation, had begun importing pile hammers from west Germany and marketing them throughout the United States.

"As soon as my father and my uncle Borden saw the Delmag at an equipment show in Canada, they realized that highway and railroad contractors could use smaller cranes and reach further with the lighter hammers and increase productivity," Brode recalled. "The single-acting diesel pile hammer was the first minor revolution in the pile driving industry. Up until then, American contractors were using air hammers that were quite heavy and didn't have a lot of capacity."

Photographer: Rob Bouwman / Photo.com

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"'A Driven Pile is a Tested Pile™' was adopted as the PDCA's tagline right from the beginning and it's pretty much stuck to today."

– *Bob Brode*

Beginning in the late 1970s the company manufactured its own pile hammers and leader systems in the U.S., but has now ceased operations.

"The competition with the Chinese was too great," he said. "Now all the hammers made by APE and Delmag are made in China and shipped back to the United States."

The W.M. Brode Company employs about 40 people today and railroads and railroad bridges still comprise more than half of its business. The fifth-generation Brode to manage the corporation, Bob's nephew Steven, is now the company's COO.

Bob Brode is a charter member of PDCA and still attends its conventions when his schedule allows, appreciating the opportunity they give him to discuss the industry.

"Our company has gotten very good exposure from the PDCA," he said, "We get a lot of calls from general contractors looking for a specialty contractor just to drive piling."

PDCA has been helping piling contractors defend their market share through education seminars and professional lectures since the beginning, says Brode.

"There are a lot of challenges in the industry and a lot of competition for deep foundation solutions," he said. "The drilled-shaft industry is very aggressive in their marketing of the caisson product."

He notes that through spearheading programs for professors of deep foundation science, engineers and contractors and encouraging research to improve the reliability, usefulness and cost-effectiveness of driven piles are other specific ways PDCA has reached out to its members.

"Railways require higher-capacity piles and use mostly heavy steel pipe and heavy steel H-beams," he observed. "Most railway bridges are built under existing traffic and you really don't have the time for concrete piles to set up under traffic. 'A Driven Pile is a Tested Pile™' was adopted as the PDCA's tagline right from the beginning and it's pretty much stuck to today."

Brode recently dedicated about three years building a steam-engine roundhouse that used timber piles—that most ancient of driven pile solutions—and still spends time on the road inspecting railway bridges.

"I wouldn't look to myself so much as a pioneer but as a pile driver who wanted to continue in the deep foundation industry," he said, "to keep on doing what had been done for so many decades before I went to work for the family company." ▼

Portrait of a Piling Pioneer

Early organizer of the deep foundations community loves the industry he has given so much for

By Margaret Anne Fehr

Starting out in 1965, John (Jack) Dougherty first joined forces with Associated Pile and Fitting (APF) in Clifton, N.J., a small company in the business of supplying points and splices for piling.

"My previous experience had been as an estimator with a large industrial painting contractor," he said. "The pile driving industry was all very new to me but with some extensive reading and listening, I was able to soon adapt to this new field."

One of Dougherty's strengths was always being the one to ask 'why not?' when gaps in the industry presented themselves. What followed was his initiating a marketing program at APF that included the publishing of *Piletips*, a quarterly magazine focusing on the industry, as well as Piletalk Seminars, first held in Saddleback, N.J. Dougherty admits that the response to the seminars exceeded even his own expectations when the first seminar instead of attracting a modest estimate of 50 attendees went on to present to a packed house of over 400 industry participants.

"The first two seminars were in New Jersey and then we took them to St. Louis, San Francisco, Carlsbad, California, Atlanta, Miami and New Orleans. We went on to present 10 sessions with the last one held in 1980. That's when everyone else started similar events, but when we started, no one was doing anything."

Continued on page 99

Photographer: Gina Smith / Photos.com

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"I'm working till I drop. What would I do if I did quit? I love what I do."

– *Jack Dougherty*

The seminars also spawned the beginning of the Deep Foundations Institute (DFI), the present not-for-profit association of contractors, engineers, manufacturers, suppliers, owners and academia.

"I held the first several meetings at my Piletalk Seminars," Dougherty said. "We combined the two meetings at the same time."

Dougherty organized and chaired the steering committee that founded DFI and served as the institute's first president and on the Board of Trustees from 1976 to 1996. He also chaired eight annual meetings for DFI and received the institute's Distinguished Service Award in 1997.

Dougherty went on to start DFP Foundation Products in 1984 after resigning from the position of executive vice president at APF. He has also been president of both Advance Pile Equipment and Monotube Pile Corporation in addition to forming Midlantic Pile Corporation of York, Pa.

Dougherty recalls the early years of the industry.

"All piling was driven using cranes with fixed leads or hanging leads. Most hammers were air operated with some diesel hammers also in use," he said. "This equipment is still in use in many places but often takes many trucks to move. The trend now in highly competitive markets such as the New York Metro area is to use hydraulic hammers mounted on specially built crawler carriers that can be moved on one truck and set up in only minutes rather than hours."

Dougherty's contribution to the evolution of the industry has resulted in being awarded two patents; one for an H-pile point design and a second for the TAPERTUBE™ pile.

DFP Foundation Products manufactures the TAPERTUBE™ pile and driving points for pipe and H-piles along with splicing devices for pipe and H-pile. DFP also manufactures cast steel timber pile points and timber pile UP-LIFT anchors.

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Dougherty left APF to form DFP Foundation Products in order to develop new products. His involvement with PDCA began soon after resigning from DFI around 2000 and he holds high expectations that PDCA will grow in its mandate of providing help and direction to the piling industry as it continues to adapt to future requirements.

Now at the venerable age of 77, with a grown family of nine daughters, three sons and 13 grandchildren, Dougherty admits that he has no plans to retire from an industry that has given him so much and to which he has responded in kind.

With an adamancy that's been well-earned, he says, "I'm working till I drop. What would I do if I did quit? I love what I do." ▼

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Winding Road to Pile Driving Success

Former PDCA president reflects on his start and evolution in the field

By Randy Dietel

Looking back after 42 years of being in the pile driving business is sometimes mind-boggling. Where does one start, or better yet, what highlights or difficulties stand out through a lifetime of working for the same company?

Maybe it's best if I back up in time a little further and say that I grew up working and thinking I was going to be the third generation of a family-owned and operated newspaper in Fredericksburg, Texas. But that didn't happen. Destiny took me into my love of music where I earned a bachelor's degree in music and taught three years as a band director in two public schools.

Life is always full of twists and turns. Shortly after marrying a beautiful lady whose family owned a marine construction company that specialized in pile driving, I lost my teaching deferment and Uncle Sam sent me to basic training in 1969 during the Vietnam build-up. I am 6'5" and while lying in those bunks that were too short for me, I considered the family offer to join the business. Thinking of making a third career change gave me some serious reservations, but I knew I could always go back to teaching if…

I am now the president and CEO of Nunez Construction Co., Inc. and Piling, Inc., which is a wholly owned subsidiary of Nunez. My son, who is a civil engineer, is working for us and he is the fourth

Continued on page 103

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MARSEILLES, IL

DECATUR, AL

On April 27, 2011 our Decatur, Alabama plant was struck by 200 mile per hour winds and was virtually destroyed. We have started the rebuild in Decatur and shifted what production we could up to our Northern Divisions in Chicago and Marseilles, Illinois. First and foremost, we want to thank our employees, customers and suppliers for their incredible patience and support during this difficult time.

So what's next? While we are having to rebuild the plant from the ground up again, we are taking the time during this temporary set-back to increase our round size capabilities in Decatur to 14" OD and 16" OD with walls up to .625". New tooling has been purchased and modifications are being made so we will be able to manufacture these two new sizes when Decatur opens early next year.

In addition, we have purchased tooling and are now making 8.625" OD, 10.750" OD and 12.750" OD in our Marseilles, IL Division. As a result, when our Decatur, AL Division is operational again, we will be able to make these A500 ITC50 Pipe Sizes and A252 Pipe Piling sizes in two locations with quicker cycle times to get the product to you when you need it.

What's next? Stay tuned.

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generation of this small but well-recognized pile driving company located in Texas City, Texas. We just celebrated our 81st year under family ownership.

My first job with Nunez was digging with a shovel in a trench behind a steel sheet pile bulkhead for hog rods and a waler system. I remember the benzene smell was so strong I had a headache by 10:30 a.m. that morning. I thought those first few days were never going to end.

A week later, I went on a job where they were driving pile and I was introduced to another terrible problem for me called serious loud noise for my band-directing ears. My ears were ringing before we finished driving the first steel pile. No one wore ear-plugs; they were not even on the horizon. I had to take aspirin at noon so I could make the rest of the day. Everyone in the crew was quite a bit older than me and they couldn't understand what my problem was, even though they couldn't hear too well.

My third introduction to the pile driving world was two weeks later when I went on a timber pile job. All pilings were treated with a heavy dose of creosote. It was summer time and by noon my arms and face were blistered from the creosote splattering on my skin. I hardly slept a wink that night, and the next day, the skin was peeling off. I learned why they all wore long-sleeved shirts when driving wood pile.

Thank goodness, I still have all my fingers and toes because as I looked around at the different crews, most were missing one or the other if they had been there for several years.

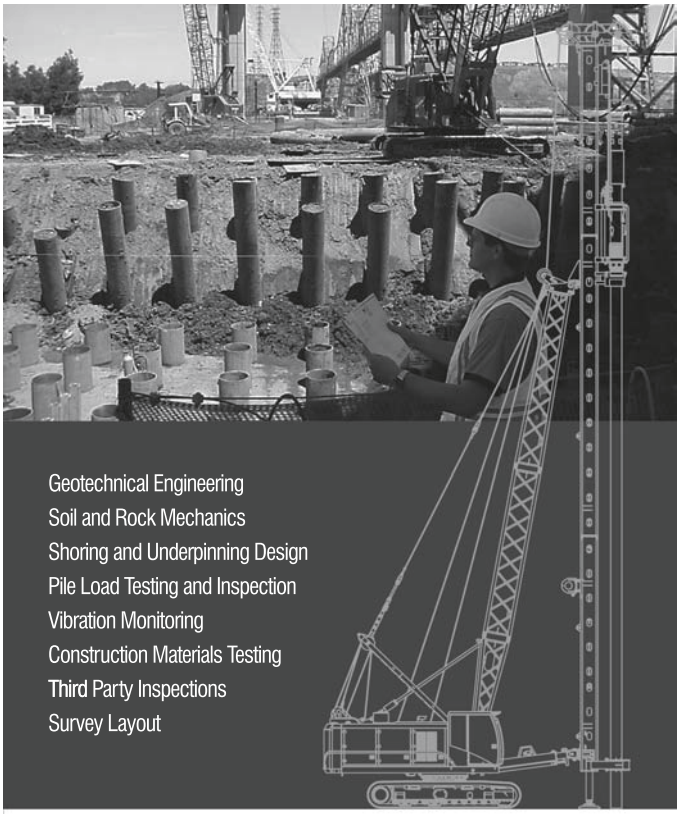
That was then, but today we are miles apart from those ways. Things have changed tremendously and assuredly for the better. Regulations, technology and safety requirements have improved the pile driving world, probably as much as any type of construction. For the most part, it is still a specialty business and not part of what most general contractors do.

I am a charter member of PDCA. I've attended every annual meeting except the first and the last. Serving on the Board of Directors allowed me to really understand that PDCA needed to tell its story to almost everyone. It became apparent to us that professors were no longer teaching anything about driven pile at universities anymore. It was like a dying understanding of the easiest proven and assured foundation system in the world. So we founded the Professors' Driven Pile Institute (PDPI) summer program at Utah State University.

It was my distinct pleasure to serve as president of PDCA in 2005. Currently, I serve on the Technical Committee where we have developed our own installation specifications and assisted the AASHTO Code Committee in revising and improving their codes.

PDCA has introduced me to many wonderful things. I have learned that I can work together with other pile driving competitors where we have a common goal. I have met many new suppliers and manufacturers of products which I did not know about before attending the associations annual conferences. The speakers at the conferences have made me aware of design possibilities and constructability issues I didn't believe could be done.

But most of all, I have made many good friends through the industry and have realized they are only an e-mail or phone call away from helping one another or buying a product. Had I not gotten involved, became active on committees or attended special conferences and annual meetings, I would never have seen the rest of the world that is out there. Thanks, PDCA. ▼



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A Thirst for Knowledge

Clayton Signor is following his passion for pile driving by presenting its benefits around the country

By Clayton Signor

Four years ago I was finishing up a house in Colorado and on the verge of moving back to Austin, Texas to focus on our family pile driving business, TX Pile, LLC. While driving to our office from the airport on a week-long visit, my mother and I stopped by a new construction site along the Lower Colorado River to see if the contractors would be interested in using driven piles instead of the drilled shaft cages they had stacked onsite. The superintendent scratched his head and looked a little confused because driven piles were rarely used in Austin besides residential jobs our company had performed. He said it was a little late for any engineering changes and sent me on my way. From that experience, I learned that if we wanted to get pile driving in the area, we had to educate the local geotechnical and structural engineers on how to design and specify them. But before I could teach these engineers about the benefits of driven piles, I had to learn as much as possible because neither of my degrees in Civil Engineering nor Construction Management from Vanderbilt University gave me much, if any, exposure to pile driving. However, I had been working on our rigs during the summers of high school and college and going to PDCA annual conferences since I was a sophomore in college, so I had a place to start.

I found a couple of presentations on the PDCA website that gave basic information on how "A Driven Pile is a Tested Pile™" and the benefits of driven piles. The benefits presentation ended up being the easiest to use and add to my father's "war stories" of our local experience over the past two decades. The first few presentations were awkward because of my unfamiliarity of the information. To help with that, I read everything that I could find on pile driving on the Internet, various foundation engineering textbooks and PDCA conference articles. The more I learned, the more questions I had about pile driving, so I signed up for every PDCA conference and some classes like the American Society of Civil Engineers' (ASCE) Deep Foundation: Design, Construction and Quality Control, dynamic pile testing mini-session and the PDA workshop. These classes helped clarify some of the geotechnical and pile driving jargon out there so I could explain to engineers why pile

Continued on page 108

"Now I understand the need for soil exploration and why a driven pile is the highest form of quality control for a deep foundation."

– Clayton Signor, TX Pile, LLC

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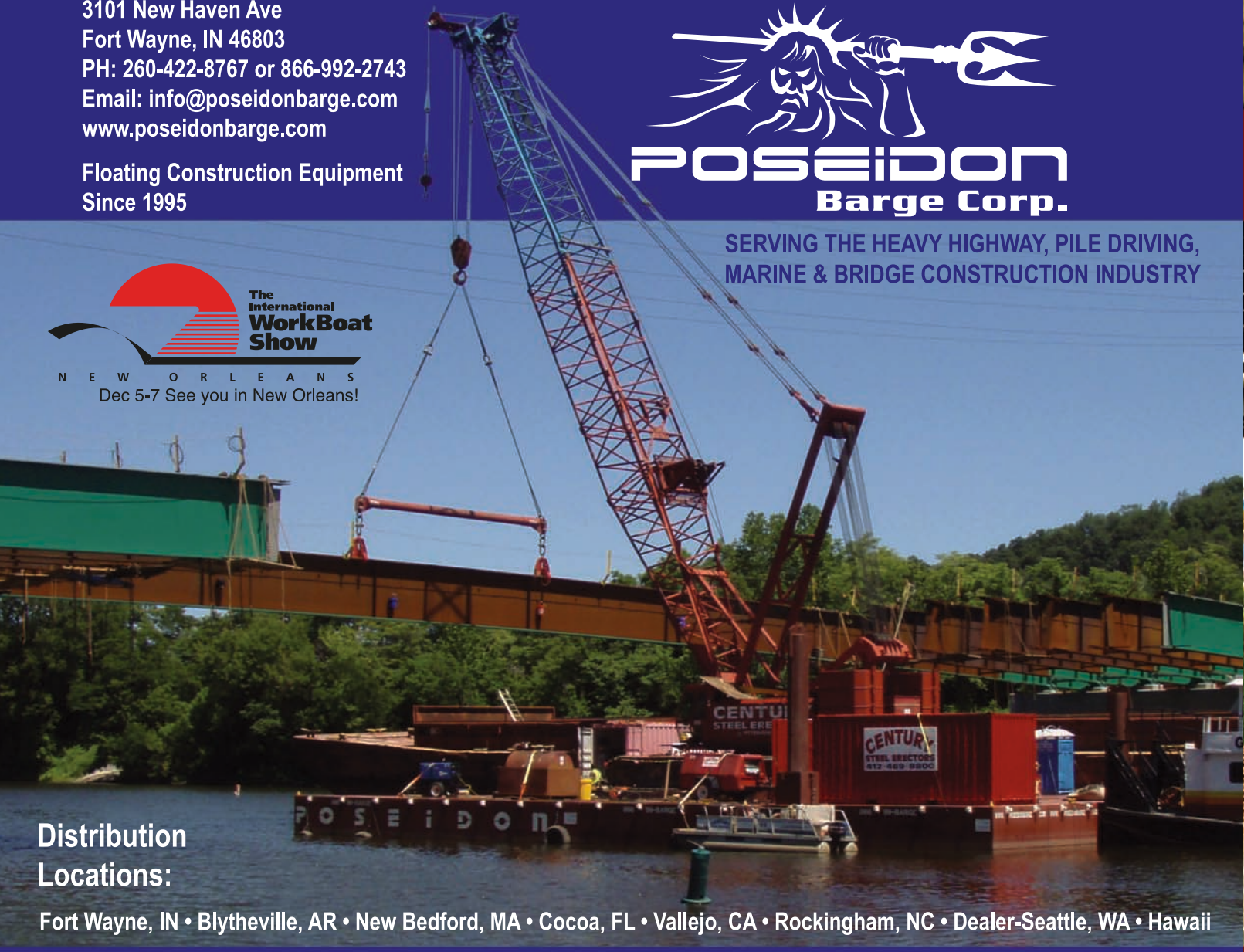

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Signor at a PDCA Golf Tournament

Signor and new bride, Heather

driving is the best deep foundation in most cases. In the first year of presenting, my father and I went to nearly 30 engineering firms, association meetings and university classrooms. Along with those presentations, we set up a PDA demonstration in expansive clay and organized a pile type seminar with representatives from concrete, timber and steel pile suppliers.

My thirst to learn about pile driving and geotechnical engineering was so much that I ended up applying and being accepted to the Geotechnical Engineering Program at the University of Texas in Austin. Before I started the program, I knew that there was some "black magic" associated with geotechnical engineering. This was confirmed by the thorough description of all the different types of soil properties, how they are determined through field exploration and laboratory tests and how they are incorporated into design. I learned that only one billionth of material of a site is tested, so statistics and past experience play the greatest role in geotechnical engineering. "It depends" was a common phrase and introducing water to a soil model always made conditions exponentially worse. Now I understand the need for soil exploration and why a driven pile is the highest form of quality control for a deep foundation.

In those two years, I was challenged more than any other time in my life by working full-time, taking two classes per semester and completing my thesis, "Driven Piles in Central Texas Expansive Soil." That thesis was the collection of four case histories in which dynamic pile testing was performed. The main goal was to explain that driven piles could be effectively used as an alternative to drilled shafts through reported average unit skin friction values and rate of soil set up. The missing piece of the puzzle in designing for driven piles in expansive soil is the magnitude of uplift forces from swelling and the reduction of skin friction from shrinkage. That is why in the next few years, I would like to organize fully instrumented pile tests in expansive soils and observe how the soil and pile interact below ground over at least two years.

It has been quite a journey in understanding pile driving over the past four years, but without the help of my family business and PDCA, I do not think I could have made it where I am today. ▼

Piling Potential

Dedication and hard work paid off for rising star Dan Winters

By Dan Winters

Daniel John Winters was born in 1978 in Chattanooga, Tenn. Dan's parents, Mr. and Mrs. Kurt Winters, may also sound familiar to the industry. Dan's father was employed as the national sales manager of Vulcan Iron Works located in Chattanooga, Tenn. Vulcan, at the time, was the largest producer of pile driving equipment in the world.

Dan was moved to Kansas City, Mo. in 1990 as his father joined in an equity position with Hydraulic Power Systems, Inc. (HPSI) and its three partners.

Dan worked summers for HPSI gaining knowledge of the products and tools of the pile driving industry the company produced over many years.

After attending both Pittsburg State and Kansas State University, it appeared that pile driving offered the potential of a specialty industry providing opportunities not available in all careers.

Dan relocated to Palm Beach, Fla. with a chance to enter the lightweight composite sheeting industry through the forming of Composite Components, Inc., dedicated to the FRP sheeting market.

For the next five years, Dan would work to build Composite Components with relationships, product knowledge and installation experience while learning many aspects of running a business in the industry.

Persistent and patient follow-up by Dan resulted in the largest FRP contract to date in Dubai, UAE at "The Palms" development.

In March 2006, Dan joined the L.B. Foster Company, starting in inside sales and quickly moving to outside sales, covering Florida, Georgia, South Carolina and Alabama.

"The last six years have been great," Dan said. "Working for a great company, L.B. Foster, is really a special thing."

Dan, as majority stockholder, is currently restructuring Composite Components by working with the current management and employees for additional profiles of FRP products as well as additional products to continue to grow the company. He is still keeping an open mind about any other opportunities that may come his way with other organizations.

"The pile driving industry is truly a unique industry with endless opportunities available with the changing methods and techniques of piling and installation equipment," he said. "I have grown up knowing and watching many of the best innovators of the industry. My goal is to continue to be part of the new ones. Thank you to all that got me here." ▼

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Sheet Piling Interlock Sealants

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Steel sheet piling is used in many types of temporary works and permanent structures. Sheet piles are interlocking steel sections that are driven in the ground making a continuous steel wall. The piles are installed with vibratory and impact hammers depending on the soil conditions at the site. Sheet piles are most useful to stop water and loose soil infiltration. They are manufactured in many shapes and thicknesses and are suitable for various purposes from lightweight residential shoring to high capacity commercial structures. Sheet piles can be used for temporary shoring then removed and reused for years to come. Sealing of the sheet piles is an extremely important factor that has always proposed a challenge in order to accommodate environmental exposure such as resistance to hydrostatic pressure and weathering effects.

Through the years, perfecting port construction has been a major concern for engineers as they strive to reduce the amount of water infiltration and environmental effects such as oxidation and corrosion on sheet piles. In the past, most port designers concluded there was no adequate solution for complete environmental resistance for piles going through large amounts of water.

Sheet piling interlock sealant has been around for decades with patent dating back as far as 1971 and recent advances in interlocking sealant has made it possible to eliminate many concerns of inadequacy as new products emerge on the market. Today, products such as SWELLSEAL®, ARCOSEAL and WADIT® enlist a perfect solution to infiltration and environmental effects on installed sheet piles. The sheet piles can be coated with these sealants for improved leak resistance and corrosion protection to add a longer life under severe conditions such as high pressure and a wide range of temperatures.

WADIT® Application

An important benefit of modern sheet pile interlocking sealants is that they are non-toxic, contain no harmful substances and can be in direct contact with drinking water making them useful for many situations.

These products are made of a self-swelling flexible resin-like material. The sealant is applied by painting on the pile's joint structures. The joints are sealed by the swelling of the product, made possible by hydrophilic polyurethane which is an important ingredient in SWELLSEAL® and many sealants on the market today. The polyurethane is formulated to swell upon contact with water, which can expand to any shape to form a seal against water leaking through the interlocks and penetrations in sheet piles resulting in resistance to outside forces.

Continued on page 113

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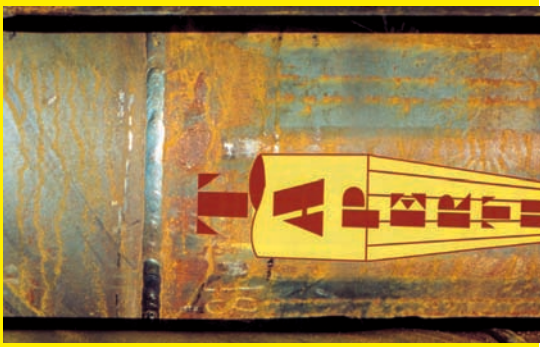

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The future of port construction has arrived thanks to improvements in the sealant industry allowing for safety and longevity of structures.

The ARCOSEAL brand sealant contains a combination of mineral oil and wax. The sealant is applied while it is heated and then retains its flexibility after it has cooled. Its use is versatile and is used on U and AZ sheet piles and for cold-formed sheet piles. It can be applied to free interlocks and to crimped or un-crimped interlocks.

Some useful applications for sheet pile sealant include temporary and permanent sheet pile wall construction, trenches in soil with high ground water level, dam renovation work, sealing river banks, sealing work on concrete and steel parts, river control structures, flood defense for ports, harbors, pumping stations, bridge abutment and road widening retaining walls.

WADIT® sheet piling interlock sealant was demonstrated on the Bremerhaven Container Port in Germany with great success. The reason for the success is that WADIT® interlock sealants combines three properties that are essential for port designers: water resistance, application flexibility and low cost. Water resistance under extreme pressure and temperature are critical of these sealants to prevent corrosion in sheet piling interlocks. They do not allow salt water or oxygen to make contact with the inner part of the interlock. The easy application and the cost efficiency come as huge benefits for how the sealant performs. Studies have demonstrated that a sealed joint sheet pile is 100 to 10,000 times more effective as groundwater flow barriers than the common unsealed interlock walls. Sealed joint sheet piles can also be used in every possible environment, be it tropical, mild or arctic.

WADIT® sealant consists of sustainable natural raw materials rendering it an environmentally friendly sealant. The sealant also allows for flexibility in the timing for when the piles are used after application of the sealant. Piling can be driven almost right away as it only takes 30 minutes for the sealant to secure itself among the sheet pile. If the piles are not used right away, the sealant remains effective for later use of the sealed piles while remaining effective against extreme temperatures for years to come.

WADIT® sealant produces the optimum solution with many benefits for port construction, as demonstrated on the Bremerhaven Container Port. Once installed it is impervious to weather and provides optimal flexibility with a material rebound that comes to effect after any type of movements. Its unique, durable bond has strength that will measure up to extreme conditions such as ice, earth pressure or movements of the sheet pile wall.

The future of port construction has arrived thanks to improvements in the sealant industry allowing for safety and longevity of structures. ▼

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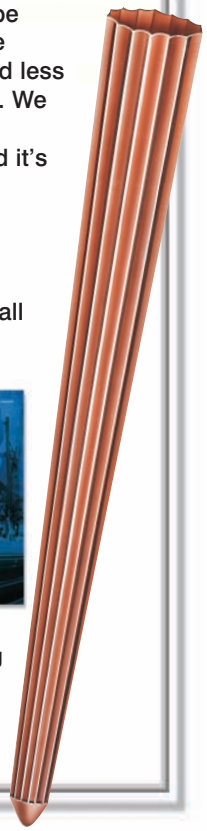

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Illustrator: Natalia Sliyeh / Photos.com

Moving Parts

The bottom line is often at the top of the list when it comes to a company's success

By Alan Sage

For the long-term benefit of your company, the bottom line has to be on your radar at all times. When talking about equipment maintenance, technical documentation becomes urgent information to both those who sell and buy the parts that keep projects moving forward. The best equipment is not always new; it's the equipment that is onsite and operational. Unplanned downtime of equipment, as we all know, represents a significant burden when it becomes a loss of revenue.[1]

Technical documentation has always been where the rubber meets the road when it comes to maintenance and repairs. Thankfully, this documentation has come a long way in keeping equipment up and running, reducing downtime and protecting profits.[2]

So what is the trend when it comes to technical documentation? Many companies still rely on hard copy manuals that are sitting dusty on the dashboard of a truck or an electronic copy stored as a PDF on a laptop or smart phone. Does this sound like progress?

Keeping parts catalogs updated and in the hands of users has always been manual in nature, taking weeks for revision and delivery – greatly impacting time and accuracy. A recent study shows that parts catalogs are relied upon by internal and external audiences as an important tool for purchasing spare parts, maintaining equipment and making repairs. But they often fail to provide the information fast enough or accurate enough to gain the highest practical and monetary benefits.

What the technical documentation industry needs is its own pile driver to get to the core of the information and deliver as fast and as accurate as the machines they support. This is where technical documentation is headed and it's exciting.

First, technical documentation has found its long-awaited space on the information super-highway. Many companies now provide documentation online, even if it's just a webpage with links to PDF documents. There are, however, new methodologies that host electronic parts catalogs with dynamic diagrams and data-driven parts lists. These new catalogs are available 24/7 with something as simple as an Internet connection.

Second, online parts catalogs have the specific feature of being able to transfer parts' information to an electronic shopping cart that follows the model seen on most e-commerce sites like Amazon or eBay, but at a diagram level – not just the widget. The cumbersome manual process of thumbing through a hard copy or clicking links in a PDF with their inherent errors and delay can be replaced by a simple recognize, click and submit process.

Now that's progress.

Third, the biggest gap in parts catalogs is now closing: integration with Enterprise Requirements Planning (ERP) and Product Lifecycle Management (PLM) systems. With

Continued on page 117

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GEOSTRUCTURAL SYSTEMS MANUAL

Trending next for technical documentation and access to part information is offline and mobile versions that will certainly bring this much needed information up to social media standards.

inventories of bill of materials already online in internal parts management systems, electronic parts catalogs are able to connect to information that is up-to-date. With integration, online parts catalogs connect to make this information viewable to the public for accurate parts availability and instant purchase order creation and submission.

Companies like Joy Global are fully launched, whereas others like ICE – International Construction Equipment, Inc. and other big deep foundation equipment manufacturers are just starting to move their parts catalogs to an online dynamic ordering solution to help their field services teams and customers get replacement parts on the spot by simply clicking on a diagram, being provided a list of suggested parts necessary to install the request and then placing the order in real time. Learn more about the solutions these groups are using at http://digabit.com.

There are even some murmurs in the industry of 3-D catalogs on the horizon. Since most companies use CAD rendering for design, it's a natural step to use these models to make an electronic parts catalog more accurate, and, let's face it, much more appealing.

Parts catalogs are broadening their beginnings from a marketing department project to support sales, to one that incorporates marketing, database management and engineering. This full-cycle approach – that includes part information, availability and seamless online ordering – takes the dusty manual off the dashboard and replaces it with a laptop connected to a world of parts just now becoming the standard.

Trending next for technical documentation and access to part information is offline and mobile versions that will certainly bring this much-needed information up to social media standards. Yes, soon there will be an app for that as well. ▼

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1. http://bit.ly/Rkb7ii
2. http://bit.ly/Siwcek

Alan Sage has over sixteen years' experience in Enterprise software. Mr. Sage has served in senior management roles at several startup companies, one of which went public before divesting part of its product line to Microsoft. He was also a co-founder of Configuresoft, one of the largest privately held software companies in Colorado. Mr. Sage currently serves as the CEO/President and Member of the Board of Directors of Digabit™, a Denver-based Software Company that develops aftermarket solutions for Original Equipment Manufacturers. Digabit's flagship product, Documoto™, is a modern aftermarket web solution that helps manufacturers deliver thousands of aftermarket technical documents on the web.

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Changes to Comprehensive General Liability?

Insurance coverage for construction defects in Texas may be in jeopardy

By C. Ryan Maloney, Foley & Lardner LLP

Those in the construction industry doing work in Texas should be aware of a pending court decision that could have the potential to drastically limit the scope of insurance coverage for claims of defective construction work in Texas under the standard Comprehensive General Liability (CGL) insurance policies most commonly used in the industry. As background, it should first be understood that CGL policies do not always provide coverage for property damage resulting from faulty construction work. Often, this is because defective work is either not considered to be an "occurrence" triggering coverage under the policy, or if it is considered an "occurrence," the standard "your work" exclusion in CGL policies, which excludes coverage for "[w]ork or operations performed by or on your behalf," is applied to exclude coverage. However, in a number of jurisdictions, such as Texas and Florida for example,[1] defective work is considered an "occurrence" and the standard "subcontractor" exception to the "your work" exclusion, which provides that the "your work" exclusion does not apply to work "performed on your behalf by a subcontractor," has been read to provide insurance coverage for certain types of property damage arising out of defective work performed by a subcontractor.

Photographer: Jeremy Edwards / Photos.com

CGL policies do not always provide coverage for property damage resulting from faulty construction work.

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However, in June 2012, the Fifth Circuit Court of Appeals, the federal appellate court covering Texas, Louisiana and Mississippi, issued a ruling in Ewing Construction Co. v. Amerisure Insurance Co.,[2] that, if its reasoning is approved by Texas Supreme Court, could drastically change the scope of such coverage under CGL policies in Texas. In Ewing, the insured contractor had contracted with a school district to construct tennis courts at a school. Soon after the tennis courts were completed, they started cracking and flaking, rendering them unfit for tennis. The school district sued the contractor for breach of contract and negligence alleging defective work by the contractor and/or its subcontractors.

Because the allegations by the school district included claims of defective work by subcontractors, under prior law in Texas, this would have triggered the subcontractor exception to the "your work" exclusion in the CGL and created at least a duty for the insurer to defend the contractor.[3] However, the insurer denied coverage, relying on the standard contractual liability exclusion in the CGL, which excludes coverage for "damages by reason of the assumption of liability in a contract or agreement."

The Fifth Circuit in Ewing agreed with the insurer, holding that by entering into a contract to construct the tennis courts, the insured contractor had by definition "assumed liability for defective construction" and therefore triggered the contractual liability exclusion under the policy. The court rejected the contractor's argument that simply entering into the construction contract was not the same as expressly assuming liability for faulty workmanship under the contract, and also rejected the argument that an exception to the contractual liability exclusion for liability the insured would otherwise have in absence of the contract applied. Instead, the Ewing Court held that the plain language reading of the

contractual liability exclusion called for in a prior decision by the Texas Supreme Court in Gilbert Texas Construction, L.P. v. Underwriters at Lloyd's London,[4] required that the exclusion apply to any assumption of contractual liability. The Ewing Court also held that the construction contract was the only source of any liability for the construction defect claims against the contractor, so the exception for liability the contractor otherwise would have had absent the contract did not apply.

Despite the fact that the prior Gilbert decision by the Texas Supreme Court involved unique facts in which the insured contractor had actually expressly assumed responsibility in the contract to pay damages to third parties in a manner not present in Ewing, the Fifth Circuit's Ewing decision significantly expanded the effect of Gilbert to essentially preclude coverage in Texas for any defective construction work if the work was performed pursuant to a construction contract, thereby also rendering the "your work" exclusion and "subcontractor" exception in the CGL meaningless in most cases. As recognized by the dissenting judge in Ewing, this represented a significant expansion of the contractual liability exclusion and a significant change in Texas insurance law.[5]

On Aug. 8, 2012, recognizing that its opinion raised important issues of Texas law that could have a significant impact on insurance law and the bargained for expectations of parties to CGL polices in Texas, the Fifth Circuit withdrew its Ewing opinion from June 2012 and certified the issue to be decided by the Texas Supreme Court.[6] The Texas Supreme Court has taken up the issue, but a decision is not expected for several months.

This situation bears close watching by those in the construction industry, particularly those working in Texas. Although the Texas Supreme Court could decide to limit the scope of the contractual liability exclusion or find the exception for liability otherwise existing applicable, it could also agree with the broad interpretation of the contractual liability exclusion by the Fifth Circuit in Ewing, which would effectively eliminate insurance coverage for any construction defect claims in Texas. In either case, the Texas Supreme Court's decision could also potentially be persuasive to courts in other states, and so is important to those in the construction industry outside Texas as well. ▼

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References

1. See Lamar Homes, Inc. v. Mid-Continent Casualty Co., 242 S.W.3d 1, 4 (Tex. 2007); United States Fire Ins. Co. v. J.S.U.B., Inc., 979 So. 2d 871 (Fla. 2007).
2. Ewing Const. Co. v. Amerisure Ins. Co., 684 F.3d 512 (5th Cir. 2012).
3. It might have also created a duty to indemnify the contractor for damages caused by defective subcontractor work, but only to the extent determined by proof in the case.
4. Gilbert Texas Construction, L.P. v. Underwriters at Lloyd's London, 327 S.W.3d 118 (Tex. 2010).
5. Ewing, 242 S.W.3d at 527, n.6 (dissent).
6. Ewing Constr. Co. v. Amerisure Ins. Co., Case No. 11-40512, 2012 U.S. App. LEXIS 16493 (5th Cir. Aug. 8, 2012).

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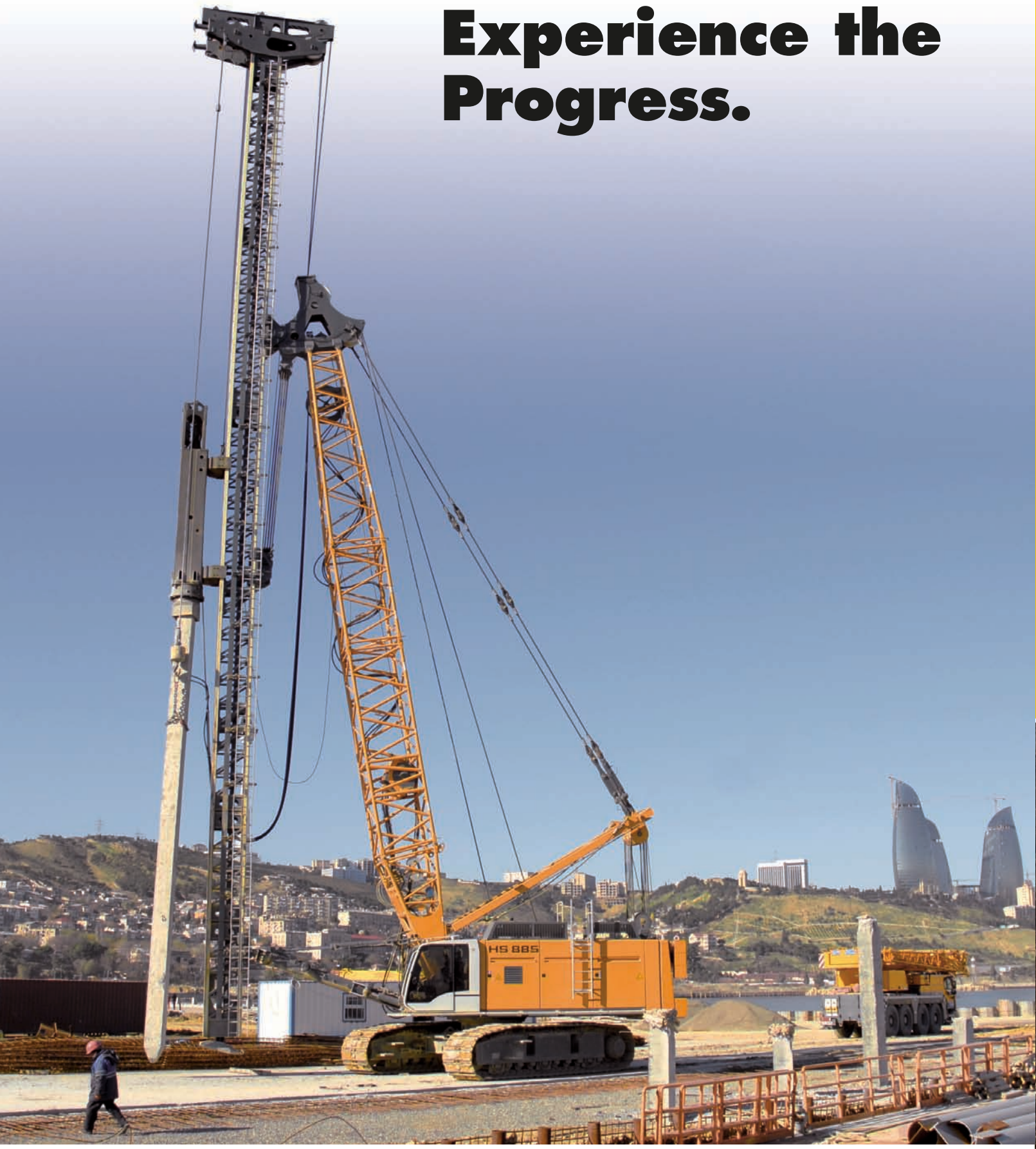

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