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Picking Up The Pieces

Boh helps repair and restore Lafitte after Hurricane Ida

BOH PICTURE
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President
Robert S. Boh

On the cover:
Boh prepares to set the final piece of new Acrow Bridge in Lafitte.

The BOH Picture is published for employees and friends of Boh Bros. Construction Co., LLC

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How big of a number is one trillion? It is a million million. That is hard to visualize, so perhaps a common comparison would be easier to grasp. One million dollars, placed in a stack of one-hundred-dollar bills, would be 3.3 feet tall. One trillion dollars, in a stack of one-hundred-dollar bills, would be 625 miles high. If this stack of currency were laid on its side, it would extend from our main office in New Orleans to the end of I-10 in Jacksonville—with $126 million left over! One trillion is indeed a very large number.

In November, President Biden signed the $1.2 trillion Infrastructure Investment and Jobs Act (also known as the "Bipartisan Infrastructure Act"). The new law provides funding for five years and includes $387 billion for highways and bridges; $48 billion for drinking and wastewater systems; $27 billion for ports and waterways; and $25 billion for aviation.

The impact for Louisiana will be significant. Routine federal funding for highways and bridges over the next five years will average about $1.2 billion per year, or an increase of almost $420 million annually compared to current funding. Louisiana will also receive $470 million for public transit and $180 million for airport improvements over that time. When added to the increased state funding for roads and bridges from the passage of a dedicated sales tax on motor vehicle sales approved by the Legislature last summer, our state will be positioned for the first time in decades to make a meaningful improvement to the condition of our transportation infrastructure. Infrastructure investments of this magnitude should lead to economic development and more capital projects in the private sector as well.

The construction industry and our company have always been subject to the forces of cyclical swings in the economy. One of the strengths of Boh Bros., and a way that we have adapted and survived for 113 years, is having talented, experienced people who can deliver predictably safe and efficient construction services to a wide variety of clients. We are well positioned to benefit from the increase in public sector spending over the next few years while we maintain the flexibility to continue to serve our private clients. After trying times these past two years due to the Covid pandemic and its effect on the daily life of our employees and our families, we look forward to the future with gratitude and optimism.

Robert S. Boh, President

> "Our state will be positioned for the first time in decades to make a meaningful improvement to the condition of our transportation infrastructure."

Lifting Lafitte

Sensitive removal of damaged Lafitte swing span requires creative solution

The Kerner Bridge over Bayou Barataria took a direct hit from Mother Nature on August 29, 2021. Hurricane Ida sent a barge careening into the bridge's aging 200-foot-long swing span, knocking it off its turntable foundation and causing irreparable damage. *(continued next page)*

They ultimately devised a rather unconventional plan that involved sliding two barges, each ballasted with water, beneath either side of the span, then pumping out the water to raise the span with the barges.

Boh Bros. had performed similar repairs on the same span just a year earlier, but Ida was the last straw. Contractor CEC Inc. of Lafayette reached out to Boh for help in removing the structure from its footprint and replacing it with a temporary span to allow time for DOTD to develop a permanent fix.

The project demanded a quick turnaround. While the National Guard had installed a temporary floating bridge a few miles south of Lafitte, it could only support one vehicle at a time and wait times were up to two hours long. As with most hurricane repairs, the deadline was ASAP. "They wanted us to complete the job as quickly and safely as possible," says Grant Closson, Boh's project manager at the site. "We worked swiftly to get the bridge back open."

It was obvious that lifting the damaged span with a crane was too risky, given its age and instability. Besides, most of the cranes in the area were already being used on other repair projects. The Boh team began looking for low-risk ways to lift and remove the bridge. "The span was in a precarious state, so we had to come up with ideas for picking it up while minimizing the danger of it sliding into the water," says G. J. Schexnayder, Group Manager—Heavy Construction.

They ultimately devised a rather unconventional plan that involved sliding two barges, each ballasted with water, beneath either side of the span, then pumping out the water to raise the span with the barges.

Having worked on the Lafitte bridge in the past, Boh already knew the weight of the swing span and was familiar with the bridge's design. As such, Boh's chief engineer, Neil Hickok, was able to quickly develop a demolition plan, calculate buoyance capacities and determine the appropriate positioning of the barges. "It was a lot safer than using a crane," Schexnayder adds. "If anything had gone wrong, it would've only damaged a barge, not toppled over a crane."

Fortunately, Boh had preemptively secured equipment and materials prior to the storm making landfall and so had little difficulty finding the tugboats and barges it needed. When the Boh team arrived at the site, CEC was already in the process of removing the bridge's timber driving surface in order to lighten the span's weight.

The team transported a barge-mounted crane to the site and "spudded it down" in front of the swing bridge turntable, while two rented material barges were used for the actual lifting. The Boh team worked from the water, while the CEC team assisted from the shore or bridge. The crane assisted with grabbing pumps and other support equipment from the bank.

It was a delicate operation, Closson says. While barges had been used for lifts before, "it's not something we see every day."

The Boh team first pumped water into the barges

Using the barge crane, they removed a 50 by 30-foot double span on one of the approaches to access and repair a damaged pile cap and drive new support piles.

using 8, 6-inch pumps, four on each barge. "The entire time we were monitoring water levels and observing how the barges were reacting," he adds. "You can't just pump the water into one end, or you could actually break the back of the barge, or the barge could become unstable. You definitely need to pay attention and know what you're doing."

Once the barges were positioned and secured beneath the bridge, the team gradually raised the bridge span by "de-ballasting" the barges. The Boh team moved the barges and span away from the bridge, then inserted a third barge beneath the middle of the span for additional support. "We used the same approach with the third barge—pumping water into it so it could slide underneath, then pumping the water out," Closson says.

The crew then dismantled the bridge section, with CEC cutting the bridge into four sections and Boh lifting and setting the sections on the bank.

A Temporary Fix

Turning its attention back to the bridge, the Boh team began repairing damage to the approaches to make way for the temporary span replacement. Using the barge crane, they removed a 50 by 30-foot double span on one of the approaches to access and repair a damaged pile cap and drive new support piles.

CEC provided the engineering and Boh performed the lift. "We came back with six new 95-foot-long steel piles (already in Boh's inventory) and a temporary cap, then re-set the span," Closson says.

The team then installed steel beams as support for the bridge turntable, then set the temporary steel bridge in two sections measuring 100 by 30 feet each. "CEC assembled the sections on a barge next to the site, pushed it over to us on the barge, and we picked it up with our crane and set it," Closson says. The driving surface is made of precast panels and a layer of asphalt, all of which was delivered to the site, then lifted and placed from the materials barge. Once the bridge sections were in their final position, CEC anchored everything into place.

There were challenges encountered along the way, most of them to be expected when working in an area impacted by a hurricane. "Needless to say, they didn't have any power in the area," Closson says. "There were no gas stations, water etc., and if we needed a tool we couldn't just run to the local hardware store."

The Boh team worked sunup to sundown, seven days a week throughout the three-week project. Safety was a concern throughout. "We made sure that everyone stayed focused, and if it was too much for someone due to their own Hurricane Ida recovery at home, we let them go home and take care of what they needed," he adds. "As always, the focus of our projects starts and ends with everyone going home safe."

The driving surface is made of precast panels and a layer of asphalt, all of which was delivered to the site, then lifted and placed from the materials barge.

Anywhere and Everywhere

Entergy turns to Boh as ‘go to’ contractor in wake of Ida

It was far from a conventional project. There was no centralized jobsite, no specified deadline, no well-defined scope of work, and it was difficult to predict what each day would bring. The goal, however, was clear—the restoration of power to southeast Louisiana in the wake of Hurricane Ida.

Through an all-encompassing, “base load” contract with Entergy, Boh Bros. assisted the energy provider however and wherever there was a need. Brendan Tracy, Boh project manager, says the work came out of a decades-old maintenance contract that had evolved to include storm repairs after Hurricane Laura in 2020.

“We asked them to contact us if they needed assistance following a storm and boy did they contact us,” Tracy says. “Entergy would just pick up the phone, call our superintendents Henry Ballam and Dustin Punch and tell them to do X, Y and Z. That might be hydro-excavating for power poles, setting up laydown yards, backfilling, supplying restrooms, light plants, etc. Anything they needed they would call us, and we would do it for them.”

Before Ida even made landfall, Entergy put Boh and its assigned base load group on standby. The contractor mobilized by filling sandbags and getting equipment ready in a staging area at its Almonaster facility. But there was only so much they could do in the beginning. “We knew what we would need, but before the hurricane we had no idea where it would be needed or how much would be needed,” Punch says.

Delegating Control

Ahead of the hurricane, Punch evacuated his family to Birmingham and spent the day with them, then hit the road back to Louisiana after the storm had passed. “I was immediately getting phone calls (from Entergy),” he says. “Once you’re in their system, they treat everyone as a lineman.”

The Boh team initially concentrated its efforts in New Orleans, then began spreading out across every corner of the region. “We had folks in Hammond, Amite, Independence, Fourchon, Golden Meadow, Chalmette, LaPlace, Reserve etc.,” Ballam says. “We supported our base load group with everything from hydro-excavating,

(continued next page)

Of course, the Boh team also had to deal with the typical challenges found on any job—weather, mechanical problems, unexpected obstacles, etc.

supplying sand backfill, restrooms, backfills…even ice. If they needed it, we provided it."

Coordination of such a scatter-shot endeavor was an extraordinary challenge. At peak, there were some 85 Boh workers and 20 crews, making it impossible to manage from a central location.

It was a very de-centralized, but successful, operation. "Every crew was put together for a certain task, and they were capable of doing that job and making decisions as needed in the field," Punch says. "Everything was changing by the second."

Resources were often strained due to severe supply chain disruptions, so the project team leaned heavily upon Randy Ryan in Boh's truck facility to find the equipment they needed. In turn, Ryan would let the team know where the needed machine was located, then assist them in getting it where it needed to go.

"We took everything off of every Boh jobsite that we could," Punch adds. "There was no time to waste. When Entergy called for something, we had to act quickly. We had to hustle and move and make it happen."

No Time to Hesitate

Time was of the essence in the aftermath of Ida "and the deadline for every project was ASAP," Punch says. "Our laborers and support crews would work from 6 am to 6 pm, then from 7 to 10 pm Entergy would run and energize the lines and test everything. They didn't want anyone out there working in the field or in a bucket working on a powerline when that was going on." Nevertheless, crews made themselves available until 10:30 pm should a need arise.

Of course, the Boh team also had to deal with the typical challenges found on any job—weather, mechanical problems, unexpected obstacles, etc. When a situation arose, they'd consult with Entergy personnel to work a solution or move onto the next site to keep things moving. "Entergy's top priority was to get all of the feeders back up and running," Punch adds. "They were there to support the work and it was our job to execute it in a safe and orderly fashion."

Throughout the process, existing supplier relationships and Boh's intimate knowledge of the byways and waterways of southeast Louisiana proved critical. For example, when the supply of rock was threatened after a canal was shut down near Houma, Boh quickly tapped into another source in St. Rose. "You cultivate and maintain good relationships with your suppliers, and they're there when you need them," Punch says.

Punch and Ballam also credit the project's success to the "all hands on deck" approach by the entire Boh organization. "I've worked a lot of hurricanes and this is one of the best responses I've encountered," Punch says. "We had people showing up ready to go to work that didn't need to be there. I had supervisors two ranks above me working under me. They just showed up and said, 'Tell me how I can help you.' It was great."

Tracy's assistance from the main office was equally important, as he would take phone calls and ensure that workers in the field got breaks when necessary. "Apart from our key people, the laborers and foremen were allowed to take a break for a day or two when needed so that they could tend to their own homes and families," Tracy says.

Safety was an ever-present concern. Therefore, three safety managers frequently visited the sites throughout the duration of the work to ensure a safe work environment. But it's Boh's intrinsic culture of safety that gets much of the credit. "Our crews understand what can be done safely and when a task needs to be discussed further in order to maintain safety on site," Ballam says.

POWER MOVE

Creative thinking gets Boh out of logistical tight spot during Entergy marine repairs

When R.R. Cassidy Inc. asked Boh Bros. to assist with the emergency repairs of six water-based transmission poles after Hurricane Ida, it became obvious that the site's tight conditions and numerous underwater obstructions would require an atypical approach.

The hurricane had damaged a significant number of poles that fed power to the Chauvin community, and even though the Cassidy team could perform repairs in the marsh, they needed Boh to do the work over water. More importantly, the repairs needed to be done in a hurry. "We began talking with them on Sept. 8 and by Sept. 11 we were receiving materials and prepping the barges," says Kyle Alexander, Boh's project manager.

Pile foremen Corey Price and Sean Barbarin initially surveyed the site by air boat, and found an area literally surrounded by devastation. "Roadways were hard to navigate due to powerlines being down, debris etc., but we were able to get down there by weaving our way through," Price says. "We took some water depth readings and checked access routes. All of that was done ahead of time. We were fairly confident that we could get to those locations with our shallow water equipment and tugs, and we got the ball rolling."

In the beginning, Entergy had difficulty finding materials, so they shipped whatever they could find to Boh's Almonaster yard. "They used our yard as a central shipping location for power poles, casings and any other materials that were needed," Alexander says. "We had trucks coming from all over to bring this material to our yard. They were literally scavenging the entire country to find material."

Transporting everything from Almonaster to the jobsite was no easy task, either. The hurricane had caused significant damage to the Intercoastal Waterway—there was sloughing in the channel some 20 miles west of Lafitte—so it was closed to large barges. That forced Boh to find an alternate route. "Instead, we had to go up the Mississippi River and back down through the Port Allen Locks, then through Dulac and Cocodrie to get to Chauvin," Alexander says. The entire trip took about two and a half days.

Working in a Maze

Once at the site, Boh's biggest concern was navigating through a complex network of active underwater pipelines, including some 24-inch-diameter, high-pressure gas lines. Any damage inflicted by a barge, spud or pile could have been catastrophic. "The lines run through an old oil field, so there were pipelines and flowlines scattered like spaghetti all over the place," Alexander says. "We're familiar with working on the water…we do that a lot. But the maze of utilities and pipelines was significant."

Quanta (R.R. Cassidy's parent company), the pipeline owners, and survey teams worked collaboratively to locate and mark the lines with cane poles, as well as document their depths, then divers re-verified that barge, spud and pile locations were clear once the Boh team arrived on site. Water depths would typically average between 5 to 7 feet deep, but at times would be as shallow as 3 feet due to tidal flow and wind.

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Price credits the divers for being critical to the project's success. "We stayed in constant contact with them, either in person or by radio," he adds. "And when we encountered an obstruction, we would move the tower toward or away from the canal to miss a line."

Most of the power poles at the Chauvin site had fallen over or were too damaged to repair, so Boh had to drive new, 48-inch-diameter, 50-foot-long caissons adjacent to the existing locations, then install the new poles using a vibratory hammer. Next, an Irby crew would hang the lines and conductors.

It was an extremely tight site, so the project team had to creatively maneuver a 165-ton lattice boom crane, pile driving equipment, templates, caissons, and poles around existing transmission lines that were still in the air—all while working from a barge with limited space. As one logistical solution, Price and Barbarin sketched out a unique "floating template," then asked Trey St. John, Boh quality control manager, and the Almonaster team to fabricate the system in short order. Incredibly, the work was completed in less than two days.

The two-piece floating template—built similarly to a pontoon with capped pipes that provide buoyancy—was positioned on location, bolted together, then spudded down with a crane. "After the pile was driven, we'd pull the spuds, unbolt it, pull it apart and float it to the next location," Price says. "Without it, we would have had to drive temporary piles and build a template on top of them or weld a template on top of the barge."

The Boh team was able to physically float the template into place. "We'd spud it down and it was ready to go," he adds. "It was faster and easier to maneuver. There were single pile setups and double-pile setups, so we designed it to support both." With the template in place, the team would then drive one or two caissons to grade, as needed, remove the template, then set and drive 105-foot-long galvanized steel poles. Some of the configurations were H-frames, so two poles were driven with a cross brace for support.

Throughout the project, safety was paramount. Boh would conduct safety meetings prior to each day's work to discuss challenges and concerns, then mitigate any potential safety hazards. "We went through those procedures several times," Alexander adds.

Fatigue was another potential safety threat. The team worked seven days a week throughout the one-month project, often leaving their homes at 3 a.m. and not returning until late that night. To mitigate the potential of fatigue on safety, Quanta offered food and housing in nearby Houma for all workers.

In the end, the project was an unparalleled success. The Boh team completed the work in only a month, and without an established deadline. "It was a fast-paced environment, as it always is following a hurricane," Alexander says. "They would tell us what we needed to do, then we would do it. Everyone understood the urgency."

Digging Out

Boh relocates tons of surge debris from LOOP facility at storm's 'ground zero'

It was nothing but a colossal debris field when the Boh Bros. team first arrived on site. Hurricane Ida's 15-foot storm surge had piled up 4 to 6 feet of odorous marsh mud and grass everywhere around the Louisiana Offshore Oil Port (LOOP) facility near Hwy. 308 in Galliano.

All access to the facility had been completely blocked and time was of the essence. The Galliano facility's pumps, equipment and pipelines provide a vital onshore link for the LOOP deepwater port some 18 nautical miles off the coast near Port Fourchon. LOOP is an indispensable component of the nation's energy supply, as it handles 13 percent of the nation's foreign oil and connects to 50 percent of the U.S. refining capability.

The owner reached out to Boh just three days later after the storm's Aug. 29 landfall. "They couldn't access anything," says Brad Landry, Boh's project manager at the site. "When the surge came in, it had washed the actual marsh over the entire facility. Their primary goal was to get it back up and running safely with no harm to the environment."

Construction manager Craig Sanchez, superintendent Dennis LeBlanc and Landry drove to Galliano the next day to get a feel for the project's scope. They weren't prepared for what they saw. "When we topped the hurricane protection levee, all we saw was solid marsh," Landry says. While neither the structure nor equipment had been damaged, much of the facility was submerged in marsh mud and grass.

The team quickly mapped out a plan with LOOP's guidance, grabbed whatever equipment was available and cobbled together a team from Boh's New Orleans and Baton Rouge offices. They got to work just one day later on Sept. 3. "In the beginning, we only had a loader and a mini-excavator down there," Landry says, "and we focused on the stairways and cleared what we could." As the scope grew and became clearer, they added excavators, a front-end loader, bulldozer, off-road dump trucks and long-reach excavator (for accessing difficult-to-reach areas).

"We weren't going to move all of that with a shovel," he adds. "It's thick mud and marsh grass."

The Boh team pushed the marshy, mucky material to the side of the access road and began clearing stairways that provide access to the elevated facility platforms, while other contractors worked from the water to clear debris under separate contracts. Boh crews also cleared off a limestone parking lot, while pushing and loading the material into trucks for transport to a staging area.

Everything went rather quickly and was all executed under the direction of LOOP personnel. An inspector always accompanied the Boh team, flagging existing equipment and piping. For safety, the Boh team added equipment spotters, and in sensitive areas they used shovels to avoid damaging equipment. "That was critical," Landry says. "Everything was covered up, and the LOOP guys knew where the equipment was. We were digging and excavating close to their equipment, so we needed to ensure that nothing was damaged."

> **"When the surge came in,** it had washed the actual marsh over the entire facility. Their primary goal was to get it back up and running safely with no harm to the environment."
>
> Brad Landry, *Project Manager*

The work spanned two weeks of 10-12 hours a day, seven days a week through Labor Day weekend.

A Fluid Situation

Through it all, the nature of the work was continuously evolving. LOOP personnel would meet daily as an Incident Command Staff and established priorities for cleanup, then meet with the Boh team to provide direction. Meetings were always held in the field.

Through it all, Dennis LeBlanc, superintendent, was Boh's "go to" guy. "We might be cleaning stairs, roadways or equipment," LeBlanc says. "Each day, they'd say the priority was in a particular area and we'd go to the next thing."

Since the facility had been shut down during the storm, the condition of much of the equipment was unknown in the beginning. "They needed to get their equipment inspected so they could start everything back up," he adds. "They would send us all over the place to specific pieces of equipment, such as a pump, electrical panel, etc., that they needed to access."

One of the primary challenges was the site's sheer remoteness. The entire area had suffered significant damage, so there was no electricity, fuel, or housing. And cell phone service was spotty at best. "Most areas were down, so communication was tough," Landry says. "It was hit and miss. We (project management) would lose contact with each other and we'd have to go somewhere else to get a connection so we could talk."

Fuel trucks came all the way from Baton Rouge each day to fuel the equipment. Even that wasn't dependable, as it would often take up to 2.5 hours to get to the site under traffic. "There was a shortage (of fuel) in Baton Rouge as well, so we had to contact some of the local fuel companies to help us out," Landry says. "We'd fuel up everything when they arrived."

The team worked from 7 am to 5 pm, then hit the road for home in unpredictable traffic. Much of the traffic was being re-routed due to ongoing utility work at the time. "Traffic was a nightmare," he adds. "Our entire team had to drive from New Orleans or some other place to get to the site. Many days, they had to drive over two hours to get there."

Landry was impressed by the dedication of Boh Bros. employees and their ability to come together as a team, at a difficult time, to respond to the needs of the client. "All of these guys had their own personal situations and damage at their homes," he adds. "They gave up a lot to answer the call from a great client and were mentally and physically tired much of the time.

"But just like after Hurricane Katrina, these guys took pride in serving the community. It didn't matter if they were from New Orleans or Baton Rouge. They came down here, worked together and did a phenomenal job."

TIGHT SQUEEZE

Boh devises shallow-water solution for reinforcing fire-damaged I-10 span

The intense heat generated by a September tractor-trailer rig accident and fire on I-10 eastbound into New Orleans had spalled and cracked the elevated span's concrete superstructure, and LADOTD needed a quick fix. While the span's girders still provided sufficient support, a structural analysis determined that additional support was needed until a full assessment could be performed.

Engineer Huval & Associates of Lafayette and LADOTD universally agreed that the fastest and least invasive approach would be to add steel "assist girders" to the underside of the span to temporarily reduce loads on the existing, fire-damaged concrete girders.

Most importantly, LADOTD wanted the work to be completed quickly and with minimal disruption to traffic. The heavily used stretch of interstate is in close proximity to the I-310 interchange, and while truck traffic had been temporarily banned from the area, normal vehicular traffic continued.

LADOTD asked Boh Bros. to perform the work under an emergency time and materials contract. "Huval came up with the assist girder concept and we offered constructability input," says G. J. Schexnayder, Group Manager—Heavy Construction at Boh. "Their primary objective was to reduce the loads on the existing fire-damaged concrete girders, and in doing so improve the stability and safety of the structure."

During an initial boat ride to the site, Boh Heavy Construction Field Operations Manager Bill Moulton and General Superintendent Vincent Rabalais immediately realized that accessing the area with conventional marine equipment would be impossible. Water depths under the span were as shallow as 2 feet and tugboats required at least 8 feet of draft. "To get the materials out there, we would need an unusually shallow-draft barge," Rabalais says.

Fortunately, Boh already had what it needed—a 30-by 60-foot shallow-draft barge sitting at its Almonaster yard. "The very next day, we were identifying the equipment that we would need, as well as planning the process and fabrication sequence to ensure that we had everything we needed," Rabalais adds.

Time was of the essence, as everything had to be fast tracked to meet LADOTD's timeline. The Boh team began fleshing out the details and weighing their options for transporting the beams and other materials from Almonaster to the bridge site without the use of tugboats. Precision at the site was equally critical since the girders had to be installed from beneath the bridge with only 8 feet of wiggle room—and in extremely shallow water.

A Creative Solution

An expedited fabrication effort at Boh's Almonaster yard kicked everything off. By the following weekend, a 20-person team was already procuring materials and fabricating beams, while also dealing with significant supply chain issues. "The girders we located weren't the correct length," Schexnayder says. "Ideally, we would've like 60-foot pieces of steel ready and available. That wasn't the case, so we had to splice them together. It was also difficult finding all of the bolts that we needed, but our procurement guys managed to track everything down."

The Almonaster team ultimately fabricated 16 beams measuring some 150 pounds per foot and 36 inches tall, all bolted together in eight pairs. Other materials needed for the job included heavy channel for support pieces, splice plates, bolts and other miscellaneous steel. "The goal was to get all of the beams and other materials completed accurately and on time in order to get them to the site for installation," Schexnayder adds. "It could have become a time-consuming process, but we finished in record time. Like on any other job, we had to get every shop drawing approved by the engineer."

Getting it all to the site became a multi-step journey—the Boh team used tugs for the part of the trip, pushing a Manitowoc 4100 barge-mounted crawler crane and material barges as close to I-10 as possible via the Duncan Canal (aka West Return Canal) along the Kenner floodwall. They then offloaded the beams and other materials onto the shallow-draft barge, which was then pushed the rest of the way by aluminum crew boats with 24-inch drafts.

Once at the jobsite, the crawler crane set two pairs of girders at a time on a barge, then the crew boats pushed the barge beneath the bridge. "No doubt, we were operating at the edge of where we could work," Schexnayder says. "The water elevation fluctuated a bit due to the wind, and at one time the barge was even sitting on the bottom. Still, for the most part we were able to get it done without any major hiccups."

Moulton and Rabalais had determined that the best approach for raising the beams would be to jack them up from below, since the use of a large crane was out of the question. Therefore, the team first floated the girder pairs into place beneath the bridge, then rotated each of the beam pairs into position on a barge-mounted turntable and raised them into place using 4 ea. 25 Ton hydraulic jacks. Cribbing was installed between beams and the deck of the barge as the beams were raised. The beams were raised an average of 4' above the deck of the barge.

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The Boh team installed extended bearing channels after the beams were raised which beared on the existing caps to support the beams. The Channels weighed 150lbs each and would have been difficult to install due to the limitations of workspace between the existing concrete girders and the new beams. The Boh teams designed and fabricated channel supports at the ends of the beams, which allowed the crew members to slide the channels into position before they began the bolting procedure. Boh also worked with Huval and Associates to develop a jacking plan to preload the beams for final shimming and blocking. The Boh Team fabricated jacking brackets which bolted to the existing concrete caps using 1" diameter x 9" wedge bolts. Prior to jacking, wood blocking was placed between the bridge deck or the existing diaphragms and the assist girders. The crew preloaded the assist girders using 4 each 25 Ton hydraulic jacks. 12"x12" steel bearing plates were installed between the caps and the channel support brackets.

A 12-person Boh crew performed the work under the supervision of superintendents Wesley Drumright and Wayne Bremermann.

Of course, safety was a concern throughout the process, given the access issues, tight work environment and other constraints. "There was very little headroom and very tight logistics," Rabalais says. "We began with about 8 feet of room, then had to shove a barge with giant steel girders underneath there. That took it to a whole different level. That's a lot of big pieces that you have to move around.

"We had to have a very well thought out work plan to ensure that everything was executed safely."

Remembering Dale Biggers

All of us at Boh Bros. were saddened by the passing of Dale Biggers, P.E., a prominent figure at Boh Bros. for more than 50 years. Dale spent 33 years as a project manager completing hundreds of projects, including piles for the Superdome and the Aquarium. In 2001, he was named piling and marine department manager and served a key role in the recovery of New Orleans after Hurricane Katrina. A vice president since 2003, Dale's presence in the halls of Boh Bros., his depth of knowledge, and his wonderful sense of humor will be missed. Dale is survived by his wife Virgene and daughter Eva.

Before his passing the Deep Foundations Institute (DFI) named Dale as this year's Distinguished Service Award (DSA) recipient. This is the highest award bestowed to an individual from DFI. The Distinguished Service Award recognizes individuals who have made exceptionally valuable contributions to the advancement of the deep foundations industry. His wife Virgene, daughter Eva, cousins, Robert S. Boh, and Harold Baur accepted the DSA award posthumously for Dale at this year's DFI Banquet.

In addition to his work at Boh Bros., Biggers also devoted his time to industry associations. He was an active member of American Society of Civil Engineers (ASCE), DFI Driven Pile Committee and ACI 543 Concrete Pile Committee. He served as chair of Pile Driving Contractors Association (PDCA) Technical Committee and chair of the GeoCoalition Code Committee. He was also a mentor to the Capstone Project teams at the University of New Orleans.

Biggers was the chair of the task force for the International Building Codes (IBC) revisions, a nine-year effort that involved monthly meetings of a 35-member committee comprised of structural engineers, geotechnical engineers and contractors from across the country. He served as chair of the 2017 DFI Annual Conference on Deep Foundations held in New Orleans and was awarded the ASCE Outstanding Engineer New Orleans in 2006.

Hailing from New Orleans, Biggers attended Tulane University, where he earned bachelor's degrees in both mathematics and civil engineering. In addition, he graduated from the U. S. Coast Guard Officer Candidate School.

From left to right:
Dale's cousins, Eva Biggers (daughter), Virgene Biggers (wife), Robert S. Boh, and Harold Baur

BOH EMPLOYEE SPOTLIGHT

Honorably Serving Our Communities—In Action

Our Core Purpose at Boh Bros. is to Honorably Serve the communities we work in and this Purpose was put to action immediately following Hurricane Ida. In this issue, we are featuring several Boh employees that demonstrated their commitment to our Core Purpose during the recovery efforts after the storm. These employees, along with many others, were part of crews that supported the restoration of power to tens of thousands of homes and businesses. We are grateful for their effort.

Tony Barient
Crane Operator

Tony Barient has 40 years of experience as an operator, and he's spent the last 17 of those years driving piles at Boh. Tony has been a part of several significant projects over the years including driving the first piles for the new VA Hospital as well as driving piles for the recently completed Causeway Safety Bays project. On each project he acts as a second set of eyes for the crew saying, "I always make sure I keep the crew safe. Not everyone has the vantage point I do." After Hurricane Ida devastated south Louisiana this past August, Tony worked on a crew tasked with erecting new transmission lines knocked out during the storm. "I made out with minimal damage from the storm," says Tony, "but the people in Chauvin and Montegut got hit hard. We wanted to get electricity back to those people as fast as possible." Tony takes pride in working on projects that will leave a lasting impact on the community. "When I am able to show my grandkids something I worked on, it makes me proud of what I do," says Tony.

Marcus Robinson
Piledriver

Since 2001, Marcus Robinson has worked with the piledrivers on numerous projects. In his 20-plus years of experience, no project compared to the one he found himself on after Hurricane Ida. "It was like nothing I had seen before," says Marcus. Despite his own property suffering significant damage, Marcus found working as the best form of dealing with the storm's aftermath saying, "by working it kept my mind off things at home." Although Marcus had a lot on his plate, safety on the job was never put on the back burner saying, "I made a conscious effort to be even more focused on the job and not let my mind wander. Getting home safely each day is always the goal." When talking about his time at Boh, Marcus says, "Boh is a great place to work," he continued with smile and chuckle saying, "it's why I have been here so long."

Nick Durr
Laborer

It is not unusual to find multiple generations working for Boh Bros. Such is the case for Nick Durr, whose father worked at Boh for over 35 years. Nick was working on his own before his father suggested he apply to work at Boh. "I was doing my own thing, and one day my dad said I should give Boh a chance. The rest is history," says Nick. Throughout the years Nick has enjoyed the ever-changing landscape of working for a construction company saying, "I like the fact that not every project is the same. We are always going to a different area and completing diverse projects." The ability to adapt to changes served Nick well in the aftermath of Hurricane Ida, as he worked with the crews hired by Entergy to help restore power to south Louisiana. "I was proud to help the communities that do not always get the attention they deserve," says Nick. "The shrimpers, the fishermen, all the people down the bayou that are vital to Louisiana's economy and culture but are not always on the news. I was happy to help them in any way possible."

Raymond Robinson
Laborer

Raymond Robinson started his career with Boh Bros. as a laborer about five years ago. His day-to-day activities are always changing—Raymond drives a Boh truck from jobsite to jobsite providing crews with any small tools or materials they may need to complete a job or task. The most interesting job he's worked on is the Causeway Safety Bays saying, "it was a challenge because we had to safely work around the traffic, and we were over water." Raymond's task was to break down the existing concrete barrier so the new concrete spans could be put in place. Now, Raymond has found himself working on several Entergy contracts, most recently as part of the Hurricane Ida response team. Boh's response after the storm reminded Raymond why he likes Boh so much saying, "this is why I am here; Boh is always the first to offer to help." When Raymond is not working, he devotes his time as a volunteer coach at the New Orleans Recreation Development (NORD) where his son also plays basketball and football. Coach Raymond's 7U football team recently won the Mississippi State Championship.

Bryant Woodson
Truck Driver

Bryant Woodson originally started with Boh Bros. in 1991 but took a short hiatus until he came back home in 1998. Upon his return, Bryant began working with the heavy construction team on underground utility lines. Now a truck driver/operator, Bryant is part of a crew that assists with relocating or upgrading utility poles. Some of his more memorable work has come in the wake of Hurricane Ida saying, "it was gratifying work helping restore power to people; I felt like I was making a difference in someone else's life." Bryant is no stranger to the destruction a hurricane can have on a community as he lost everything in Hurricane Katrina. "I knew what these people in Galliano were going through. But they were so thankful for our hard work that they wanted to provide us lunch," says Bryant. He continued, "think about that…these people lost everything, but they are feeding us. It speaks volumes to they type of community we have in south Louisiana."

Garrick Roberson
Piledriver Foreman

Garrick Roberson began his career as a laborer for Boh Bros. back in 2004 before becoming a piledriver several years later. Early in his career, Garrick got a firsthand look at what it meant to help rebuild a community. "Helping New Orleans after Hurricane Katrina, specifically working at the 17th Street Canal breach project was a big moment for me," says Garrick. Little did Garrick know that his previous experiences would be put to use again after Hurricane Ida, this time helping restore power to the smaller bayou communities of south Louisiana. "Just being there to help was important to me," says Garrick, who suffered damage to his home. "My family was safe, and that's what mattered most. I was lucky that I could still provide for my family while working to help those less fortunate than me," says Garrick.

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