LOUISIANA CIVIL ENGINEER

Journal of the Louisiana Section

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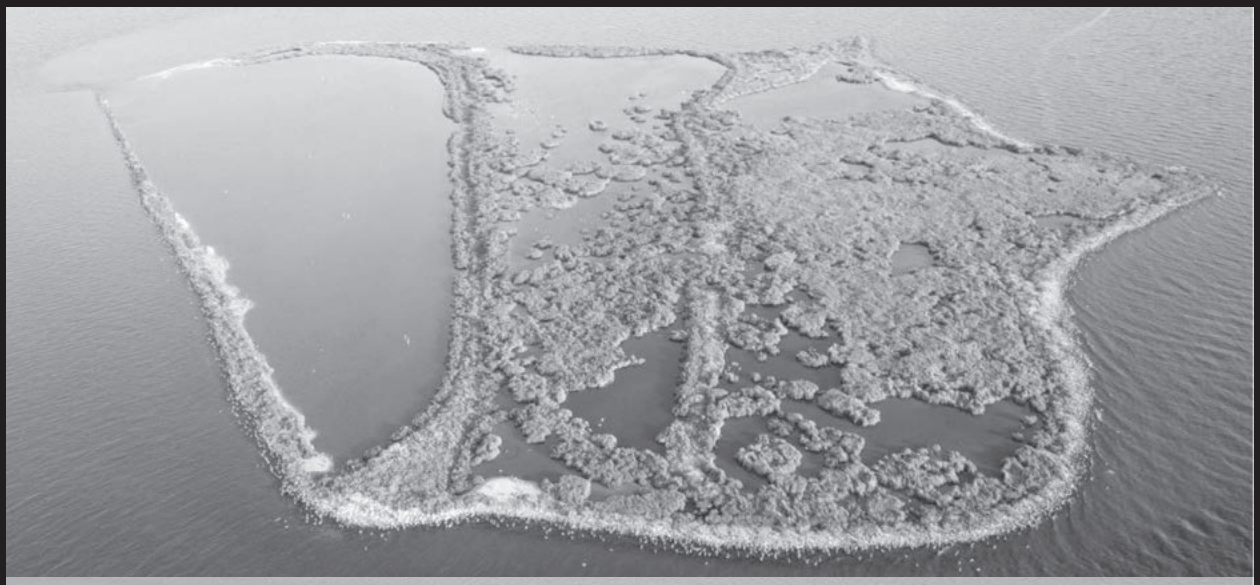
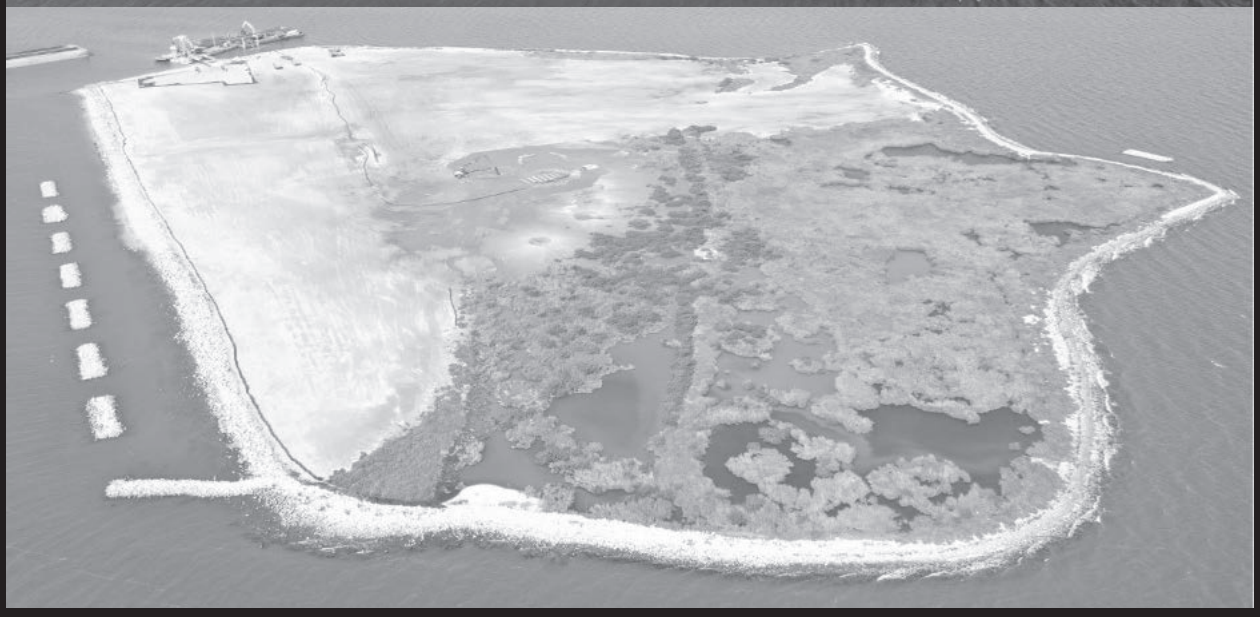
Queen Bess Drone Footage Prior to Construction





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MAY 2020
VOLUME 28 • NO 3

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The Louisiana Section is located in ASCE Region 5 that consists of the Louisiana, Mississippi, Alabama, Georgia, Florida Sections, and Puerto Rico Sections.

President's Message

By Beau Tate, PE

Beau Tate, PE

Greetings all. I hope this message finds everyone healthy and in good spirits. With the new challenges 2020 has presented Louisiana and the remainder of our Country, I am proud to say that our Civil Engineering community has worked hard at utilizing innovative ways to continue performing our everyday duties and been very resourceful throughout this time of social distancing. I can personally attest to the private sector, local, state, and federal agencies as all adapting to ever-changing guidelines in order to perform their jobs and successfully manage projects during this difficult time.

For those ASCE members who do not routinely visit the ASCE website, I would like to remind everyone of the support ASCE national and ASCE's website offers. ASCE members who may have planned on attending now cancelled conferences have the opportunity to earn 10 free PDH credits through over 200 on-demand webinars. Each of the webinars are 60 - 90 minutes and are worth between 1 - 1.5 PDHs. All eligible courses can be found at the following link: https://sa360.asce.org/ASCEWebApp/Benefits/Membership/Freeondemandwebinars.aspx

Also, all of our members should be aware that the 2021 ASCE President-elect and Region officer's election opened on May 1 and will remain open till June 1 so please go visit ASCE's website and cast your vote. Please make a special note that Louisiana's own, Mr. Rudolph A. Simoneaux III, PE, M. ASCE, is running for the 2020 - 2023 Region 5 Governor, so let us show him our support.

The ASCE Louisiana Section Board is currently seeking nominations for the 2020 - 2021 Secretary/Treasurer position. Duties are similar to those required to perform service at the branch level, and there is ample support to assist and guide one through the section board. Therefore, if you are interested or know of someone whom you feel may want to give back to the Civil Engineering Profession through the ASCE, please contact myself or anyone on the board to make a nomination.

Lastly, please be aware of the rescheduled 2020 Louisiana ASCE Spring Conference to be held in Lafayette, LA on September 17 - 18. The link for all information including registration is http://branches.asce.org/acadiana/2020-asce-spring-conference.

Louisiana
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Conference & Show

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We are proud to announce the dates for the 30th Annual Louisiana Civil Engineering Conference and Show. This event, a joint effort from the New Orleans Branches of ASCE and ACI, is the premiere gathering for the Civil Engineering community in the Greater New Orleans Area. We are in the process of soliciting sponsors and exhibitors and establishing the technical program for the fall conference which will be held on September 23-24, 2020, at the Pontchartrain Center in Kenner, Louisiana.

For additional information on the conference, please visit our web site at

www.LCECS.org

Long Live the Queen

By Bliss Kelley Bernard, PE
Amanda Phillips, PE

Bliss Kelley Bernard, PE

Amanda Phillips, PE

As Louisianans, we all know our state bird is the pelican, more specifically the brown pelican. Pelicans are used on many icons and symbols that represent Louisiana. A mama pelican, with outspread wings, feeding her young is displayed on the Louisiana State flag. The pelican is also found on the state seal, official state painting, the seals of state colleges, and the official state quarter. Louisiana even has an NBA team dubbed "The New Orleans Pelicans" where the chest of rookie, Zion Williamson adorns the logo containing a pelican carrying a basketball. Louisiana is known as "The Pelican State" and the reasons are obvious.

The nurturing ways of pelicans toward their young and the abundance of brown pelicans found along the coast may have been reasons that the pelican has represented Louisiana well before 1966. Ever evolving coastal processes, oil and gas catastrophes, environmental contamination, and pesticides all contribute to the fact that *abundance is not always promised*. Pelican populations were nearly completely decimated after the DDT pesticide usage in the early 1960's. The disastrous 2010 Deepwater Horizon (DWH) oil spill is another prime example. Direct brown pelican bird mortality and subsequent future fledglings were estimated to exceed 9,000 birds in the State of Louisiana alone.

Following the oil spill, a programmatic restoration plan to address the impacts from the spill was developed. The primary goal was to restore and conserve habitats. Projects that would provide the most immediate benefit to the same Louisiana coastal habitats that were impacted by the DWH oil spill were quickly identified. One of those projects was the Queen Bess Island Restoration Project (BA-0202). The Queen Bess Island Restoration (BA-202) team is comprised of:

- U.S. Department of the Interior (DOI) – acting as the lead federal trustee on behalf of the Louisiana Trustee Implementation Group
- Coastal Protection and Restoration Authority (CPRA) – acting as the lead implementation trustee
- Louisiana Department of Wildlife and Fisheries (LDWF) – acting as the partner implementation trustee and habitat experts
- U.S. Fish and Wildlife Service (FWS) – acting as habitat experts

Figure 1: Pelicans Returning to Queen Bess Island (Photo credit: LDWF)

C.H. Fenstermaker & Associates, L.L.C. was selected as the prime consultant for engineering and design as well as the construction engineering/inspection by CPRA.

One especially notable aspect of this project was the high degree of in-depth collaboration among project team members from multiple agencies and firms throughout the design and construction processes. The resulting integration of expertise enabled an advanced level of risk assessment and problem solving that significantly enhanced the team's ability to design and construct a project that achieves intended benefits.

Queen Bess Island is a back-barrier island located approximately 2.5 miles northeast of Grand Isle in Jefferson Parish, Louisiana within Barataria Basin. Queen Bess Island was one of the few locations where the brown pelicans were reintroduced to the State in 1968 after the DDT pesticide damage. Since then it had grown to be one of the largest and most productive breeding colonies in Louisiana for several colonial nesting bird species, including brown pelicans. Restoration projects in 1992 and 1996 restored acreage and installed a rock ring around the 36 acres. Over the course of time, only some of the island remained as land however nearly 1/3 of the island had become open water. Restoration efforts were made to restore the rookery by filling in open water areas of the island with material from the Barataria Bay Waterway.

Prior to construction of the BA-0202 project, suitable nesting habitat on the island was reduced from 36 acres to approximately five acres, due to subsidence, erosion, and other impacts due to frequent inundation and overwash. In addition to natural processes, manmade forces, including the DWH oil spill, has also contributed to the deterioration of this rookery. The BA-0202 project was designed to restore suitable colonial waterbird nesting and brood-rearing bird habitat on the island through the placement of dredged material, vegetative plantings, limestone riprap and aggregate. The project enhanced the existing rock dike around the island, which serves as containment and protection for the sand fill material that increased the island's elevation. The project also placed bird ramps at strategic locations around the island and installed breakwaters, vegetative plantings, and an area of crushed limestone to be used as nesting substrate for various species of terns and for black skimmers. These project features are intended to protect the island and enhance its nesting and brooding habitat.

Engineering

Topographic, bathymetric, and magnetometer survey data was collected within the project area to facilitate the design of the island restoration and components. Surveys were also performed along the potential construction access corridor. The design survey tasks were performed by Fenstermaker between September 14, 2017 and October 31, 2017.

Fenstermaker contracted with APS Engineering and Testing, LLC (APS) to perform the geotechnical collection and analysis. APS performed the following geotechnical services as a part of the scope: site reconnaissance, soil borings, cone penetrometer (CPT) probes, laboratory testing, and engineering evaluations and reporting.

To restore Queen Bess Island, a template was designed in accordance with the design goals and objectives. Current survey and geotechnical data obtained in support of the project design were examined in detail to refine the final design of the project components, including the elevations and acreages of each component, as well as the containment dike and breakwater system dimensions. Multiple design options and borrow sources were considered with input from the various stakeholders to narrow the options to the final selected island configuration and borrow source.

The fill material was supplied by a pre-approved quarry source. Extensive research in previously used borrow areas was undertaken to determine the best available material in accordance with the goals and objectives. All data acquired in support of the design were examined in detail to refine the preferred alternative borrow source and was determined to be the quarry material.

The final design for the Queen Bess Island Restoration Project consists of three cells filled with granular material to elevations ranging from 1.30-ft. to 3.50-ft. NAVD88, with a rock containment dike constructed on top of the existing dike surrounding the perimeter of the island, breakwaters located on the southwest side of the island, bird ramps, and vegetative plantings.

Construction Timeline

Pelicans and other colonial birds actively nest on the island; therefore, the Louisiana Department of Wildlife and Fisheries (LDWF) placed restrictions on the time that the contractor was allowed to perform construction activities to avoid disturbing nesting birds. LDWF designated an on-island construction window of September 15, 2019 through February 14, 2020 and an off-island construction window of August 1, 2019 through March 15, 2020.

On-island work referred to work that would interfere with normal bird nesting activities and included the following activities:

- Any on-island activities with heavy equipment, including mobilization/demobilization within the Island footprint,
- Placement of High Strength Geotextile Fabric, except for that needed for the breakwaters,
- Placement of 250-lb. Riprap for Rock Containment Dikes,
- Placement of Geotextile Separator Fabric,
- Placement of internal containment dikes,
- Placement of Sand Fill within the island footprint,
- Grading or movement of placed sand or in-situ material on the island,
- Placement of #8 or #57 Crushed Limestone, and
- As-Built Survey of features within the island footprint.

LDWF agreed to evaluate nesting activity at the time of construction to determine whether any of the On-island work activities could begin prior to the established date.

Off-island work referred to work that would not significantly interfere with normal bird nesting activities and included the following activities:

- Access and floatation dredging,
- In-water staging of equipment and materials,
- Pre-construction Surveys (both on and off the island) with LDWF supervision,
- Installation of Vegetative plantings on the island with LDWF supervision,
- Construction of breakwaters and temporary warning signs and Permanent Lighted Warning Signs,
- In-water demobilization of equipment,
- Post-construction Surveys of breakwaters.

As-Built Features

Rock Dikes

- Approximately 12,453 tons of 250-lb Riprap was installed around the perimeter of the island.
- A portion of the rock dike was removed to act as tidal exchange gap to facilitate marine species access and enhance essential fish habitat.

Sand Fill

- Approximately 156,888 cubic yards of sand fill was placed within the island footprint.

Limestone

- On the southwestern side of the island, at the highest constructed sand elevation, an approximate 6.7-acre section of the island was covered with geotextile separator fabric and crushed #8 limestone to serve as habitat for multiple species of terns and for black skimmers.

Figure 2: Construction Crews Installing the Limestone Material in Cell 3

Breakwaters

- Eleven rock breakwaters, for a total of 10,012 tons of 250-lb Riprap, were placed just offshore creating a lagoon-style nursery feature without harsh wave energy for the young birds to learn how to swim, preen, and feed.
- The base bid for the project consisted of installing breakwaters B1 through B11 on the southwest side of the island. Bid alternate #1 included constructing breakwaters

A1 and A2. A2 was ultimately constructed but the Contractor did not construct a breakwater in the B1 location shifting the breakwater field westward.
- The Project Team decided to shift the three western most breakwaters (B2, B3 and B4) approximately 20-ft. further away from the island to increase the calm water area useable by birds.

Bird Ramps
- The project design, at the time of bidding, called for 11 individual bird ramps along the southwest stretch of the island, in the vicinity of the breakwaters. The purpose of the bird ramps was to facilitate access of juvenile birds to and from the island and the surrounding waters. In addition to the continuous bird ramp installed in the tern and skimmer habitat area, bird ramps were installed in areas deemed critical by LDWF staff.

Vegetative Plantings & Seeding
- Approximately 16.5 acres of the island was elevated with sand and planted with marsh elder (*Iva frutescens*), groundsel bush (*Baccharis halimifolia*), and matrimony vine (*Lycium carolinianum*). Some portions of this area are expected to be at intertidal elevations within three to five years.
- At the time of planting, PPLLC's subcontractor had a shortage of Marsh Elder and an abundance of Matrimony Vine. PPLLC was allowed to substitute the Marsh Elder with the Matrimony Vine.
- PPLLC's planting subcontractor was allowed to install plants in the filled depression area at the northwest end of Cell 1.
- In an effort to reduce windblown sand from leaving the island, all exposed sand areas were seeded (broadcast method) with a mixture of Sahara II Bermuda Grass and Attain Annual Rye Grass seed at 2 pounds per 1,000 square feet and 20 pounds per acre, respectively. Also, silt fence material was used during construction at the edge of the sand fill to keep the sand from blowing onto the stone.

Hay Bales
- To reduce windblown sand from leaving the island, 12 rows of 18" X 18" X 3' double-bound hay bales, with natural fiber binding twine, were installed in all areas of exposed sand. A total of 1,325 hay bales were installed.

Permanent Lighted Warning Signs
- The original bid quantity of Permanent Lighted Warning Signs was 8. Prior to the beginning of construction, it was determined that only 5 warning signs were required by the US Coast Guard, so the quantity was reduced.

Approximately 10.0 acres of the island were not significantly altered by construction activities. These areas include existing marsh, mangrove stands, shell hash, exterior beach, small ponds, and unconsolidated mud. The portions of these areas that are below mean water level were nourished with mineral and silt rich water from the sand slurry overflow.

Habitat types and features on the island now consist of approximately:
- 1.8 acres of 250-lb Riprap
- 1.5 acres of bird ramp material (#1 Limestone)
- 0.9 acres of small ponds
- 6.8 acres of tern and skimmer habitat (#8 Limestone)
- 0.8 acres of unconsolidated material
- 0.15 acres of exterior, intertidal beach
- 0.4 acres of bare soil/shell hash
- 17.1 acres of planted sand fill
- 2.2 acres of mangrove
- 5.4 acres of marsh grasses

Project Design Challenges

Habitat Restoration Guidelines
- CPRA does not currently have design guidelines for nesting habitat restoration projects, as their guidance mostly focuses on marsh creation. Conceptual goals and objectives were loosely created by the Louisiana Trustee Implementation Group (TIG) in the Final Restoration Plan (RP), which included restoring the island's suitable colonial waterbird nesting and brood-rearing habitat from its current size of less than 5 acres to its historical peak of approximately 36 acres. While the primary project goal of increasing brown pelican, tern, black skimmer and other colonial waterbird habitat was well defined, it was acknowledged that the RP was conceptual in its design components. Fenstermaker was tasked with refining the engineering and design goals and associated objectives. To do so, bird habitat knowledge was crucial. The project team had to work together diligently to develop a project specific plan with clearly established and refined goals and objectives to guide the project. In the Lessons Learned meeting, developing nesting habitat restoration/creation guidelines was recommended.
- The geotechnical engineering design was a challenging component of the overall project design. For habitat restoration projects, geotechnical engineering plays a key role and it should be very clear to the geotechnical engineers that their task is on the critical path. Due to the limited guidance on habitat restoration projects, geotechnical methods varied when compared to typical marsh creation projects. Utilizing imported sand versus dredged material also added to the complications of the geotechnical design. There is a lack of guidance and previous projects that followed the same process; thus, this was challenging in numerous aspects including: cost estimating (mobilization costs, item costing, reduced time and cost for borrow source permitting), quantity of bidders, quality and specifications of material, developing specifications, and risk. It was recommended that the information about this design process should be recorded for use by future projects.

Construction Window
- Queen Bess Island is a protected bird rookery, so there are limited periods of the year that access to the island is allowed. This limited window was important during the design process and was even more important when the project team created the bid documents. Provisions had to be made to encourage the contractor to start and complete the project on time. In the Lessons Learned meeting, it was recommended that future projects can use Queen Bess Island's documents as guidance. It was also recommended that liquidated damages and construction methods to reduce habitat impacts be added to the habitat restoration/creation guidelines.

Figure 3: Installed Hay Bales and Vegetative Plantings on Queen Bess Island (Photo credit: LDWF)

Construction Challenges

Breakwaters

- It was noticed that approximately 4,353 tons of 250-lb Riprap was placed above specification and that there were areas where placement was below specification. This was more prevalent in areas of the toe berm that were under water. Initial placement was made with a long reach excavator that did not have a GPS system to monitor elevation of the placed rock. Breakwater A2 was misplaced and installed on the southeast side of the island. Additionally, low water levels caused difficult access to the breakwater area with loaded rock barges. The contractor began using a long reach excavator with a GPS unit and was instructed to move rocks from areas above tolerance to areas below tolerance, where possible. The project team determined that the removal of the misplaced breakwater could cause a loss of rocks and excessive turbidity, which could result in damage to nearby oyster leases, so it was decided to allow this breakwater to remain in place and to eliminate breakwater B1 from the southwest side of the island. The contractor light loaded barges to aid with accessing the breakwater area.

Materials

- At the time of bidding, the design called for bird ramps to be constructed with #57 limestone. After installation of the 250-lb Riprap, the project team determined that the inter-rock spaces were large enough that the #57 limestone may fall through the spaces and require a significantly larger quantity of stone. The design also called for 11 individual breakwaters to be installed at field fit locations along the stretch of the rock dike that is between the designated tern and skimmer habitat and the breakwater field. After installation of the 250-lb Riprap, the project team determined that the inter-rock spaces were large enough that the small birds could fall between the rocks and become trapped. Through Change Order 2, the contract was modified to change bird ramp material from #57 limestone to #1 limestone. The project team decided to make one continuous breakwater, 1,300-ft., along this stretch of the island. The necessary quantity of #1 limestone was estimated to be 1,000 tons and was added to the contract via Change Order 2.
- As sand elevations exceeded water levels, winds in excess of 20 miles per hour would blow sand across and off the island. An unknown amount of sand was blown into the gaps between the riprap on the southern containment dike and potentially off the island. During construction, the contractor installed silt fencing at the southern edge of the island, with moderate effectiveness. As areas in the tern and skimmer habitat were confirmed at grade level, the contractor was allowed to cover the sand with geotextile separator fabric and #8 crushed limestone. To reduce windblown sand from leaving the island, hay bales were installed in all areas of exposed sand. A secondary benefit to the installation of the hay bales was to provide nesting substrate and materials for pelican nests. Photographs taken on the island in early March 2020 indicate that the pelicans are using the hay as nest material, and the hay bales are trapping windblown sand.

Costs

The engineering estimate for the total base bid was $8,321,677.90 and the alternate bid was estimated at $184,904.17, totaling $8,506,582.07. The winning bid estimate was $9,838,239.50 and the alternate was $145,311.00, totaling $9,983,550.50. The total actual construction cost was $10,877,035.85.

The Grand Reopening of Queen Bess Island was held on February 3, 2020. Governor John Bel Edwards unveiled a sign that dedicated the island as a wildlife refuge and officially opened the island back up for nesting (human access is prohibited from February through September while birds nest there).

Figure 4: The Fenstermaker Team with Governor John Bel Edwards Following the Dedication of Queen Bess Island as a Pelican Refuge. Pictured from L to R, Scott Courville, Garvin Pittman, PMP, Dr. John Foret, Amanda Phillps, PE, Governor John Bel Edwards, Bliss Kelley Bernard, PE, and Charles Fenstermaker

Figure 5: Drone Footage Prior to Construction (top), and Drone Footage During Construction (bottom)

Bliss Kelley Bernard, PE is a native of Addis, LA and a 2014 graduate of the University of Louisiana at Lafayette with a bachelor's degree in Civil Engineering and a mathematics minor. Bernard is an engineer with Fenstermaker's Baton Rouge office. She has 6 years of experience including a variety of engineering activities such as project management, NEPA studies, and public outreach coordination, as well as designing and developing engineering, environmental, coastal, transportation, construction and regulatory permit documents and reports for a range of projects.

Amanda Phillips, PE is a licensed civil engineer with a history of coastal design and construction experience. Phillips has designed and constructed numerous coastal projects throughout southern Louisiana. These projects include breakwater design, marsh creation projects, dredging of inland waterways, riprap installation, levee construction and other heavy civil construction projects.

ASCE Region 5

By Peter M. Moore, PE, ENV SP, F. ASCE

Peter M. Moore, PE, ENV SP, F. ASCE

These are certainly difficult and uncertain times that we are living in. Our families, our organizations and ASCE are all making a number of very specific decisions based on limited and vague information. As your Region 5 Director, I want to let everyone know that our first concern is the safety and wellbeing of you and your families during this trying time. Once you've secured that, I want each of you to know that taking care of our membership is the very next thing we are concerned about.

The ASCE Board of Direction has had dozens of meetings relating to COVID-19. All ASCE staff is working remotely, and while that presents some logistical challenges, the intention is for the membership experience to mirror "normal times" as closely as possible. ASCE has developed a COVID-19 Resource Page (https://collaborate.asce.org/covid-19/home) with a wide variety of information, from health resources to technical and career enhancement courses to educate in case you are one of the millions of Americans with a little more free time on your hands.

Our virtual resources are more important than ever, so I hope that you participate in a Collaborate forum, sign up to be a mentor or mentee or take advantage of all the other Member Benefits (more information at https://www.asce.org/member-benefits/).

Last, but certainly not least, I want to send a message directly to our Student Members that read this publication. I was there in the room at a concrete canoe captain's meeting for the Southeast Regional Competition when we learned that the competition was going to be altered (and later that night cancelled). Trust me, I know the heartbreak that every single competitor felt, particularly those that were looking to compete in what likely was their last competition. I also think back to my last semester in college (right here in Region 5) and I know that every class, person, night and memory are things that I cherish, so for all those impacted, particularly our graduating seniors, I'm sorry that you are missing out on that chance to make those memories.

But I also challenge all students to take a look at the world we now live in. In the last two weeks, millions of Americans have lost their jobs. At the same time, the Department of Homeland Security has identified nearly every single facet of Civil Engineering as critical to the Nation's security (https://www.cisa.gov/critical-infrastructure-sectors), making your careers all the more important in stark contrast to the negative news about service and retail layoffs.

People are defined by how they face adversity, not how they live in times of bounty. All professionals in the civil engineering realm are trained and practiced to use our problem solving skills to overcome adversity. Please see how ASCE can put you in touch with the people and resources in order to overcome today's challenges and thrive in the future. Please let us know how we can help Direct: (954) 947-1758 Mobile: (954) 818-9552. Thank you and stay safe, Peter

Region 5 - The 2020 MRLC in Philadelphia, PA

On January 30, 2020 approximately 34 ASCE members from Region 5 attended the Region 5 Assembly in Philadelphia, PA. The assembly was led by Region 5 Director Peter Moore. The purpose of the assembly was to network with members within our region and to discuss region activities and topics. We were honored to have the following distinguished visitors at our assembly: ASCE President K.N. (Guna) Gunalan; ASCE Executive Director Tom Smith; and ASCE Director of Geographic Services Nancy Berson. Photo courtesy of Sarah Matin.

Due to the ongoing COVID-19 pandemic, the Acadiana Branch has rescheduled this year's Annual Louisiana Section Conference to Thursday and Friday, September 17-18, 2020. The conference will still be held at the City Club in Lafayette, LA.

Conference registration for attendees, sponsors, and exhibitors will soon re-open. You will receive another email with updated conference details and a link to register within the next few weeks.

If you have previously registered for this conference as it was originally scheduled, please take note of the following (your existing registration will automatically be transferred to the new conference):

1. If these new dates work for you and your schedule as it relates to your existing registration, no action is needed on your part.

2. If you wish to modify or cancel your existing registration as a result of these new dates, please let us know and we will be happy to accommodate your needs.

Spring Hill Suites on Settlers Trace Boulevard has updated our group reservation details, so if you are coming from out of town to attend our conference and would like to book a hotel room, please follow the below link.

https://www.marriott.com/event-reservations/reservation-link.mi?id=1573749414500&key=GRP&app=resvlink

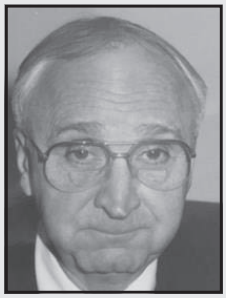
Please be sure to book your room by September 2nd to take advantage of the ASCE special rate of $114 per night.

We apologize in advance for any inconvenience you may experience as a result of the rescheduled conference.

Thank you for your patience and support. We hope that you and your loved ones are safe and healthy during this very unusual time.

If you have any questions regarding the conference or any other ASCE related matter, please contact me at your convenience.

Sincerely,
Jacob A. Neu, E.I.
President, ASCE Acadiana Branch
janeu@sellersandassociates.com
(337) 232-0777



In Memory of

ROBERT NOLAN BRUCE JR.

OCTOBER 11, 1930 - MARCH 21, 2020

Robert N. (Bob) Bruce, Jr, PhD, PE, died on March 21, 2020 at the age of 89. Bob was born on October 11, 1930. He was the son of the late Robert Nolan Bruce and Frances Patterson Bruce. He attended Audubon School and Fortier High School, before enrolling in the civil engineering program at Tulane University. At Tulane, Bob was a member of Omicron Delta Kappa and Kappa Sigma fraternities. After receiving the Master of Science degree, Mr. Bruce was employed by the New York firm of Raymond International Inc., participating in projects in Venezuela, Mississippi, Florida, and Louisiana; including the Lake Pontchartrain Causeway. In 1962, Dr. Bruce earned the PhD degree in civil engineering from the University of Illinois in Urbana Illinois. He spent the next 45 years teaching structural engineering at Tulane University, where he held the Catherine and Henry Boh Chair in Civil Engineering for 20 of those years, and where he frequently commented on his good fortune at having such outstanding students. During his teaching career, Dr. Bruce served as a visiting faculty member at the University of Ghent, the University of Dundee, the Rangoon Institute of Technology, and the Technical University of Budapest. His summers were spent conducting institutes on nuclear weapons effects at the Rensselaer Polytechnic Institute, the George Washington University, and the Universities of Maine, Miami, Washington, Utah, and Puerto Rico. Dr. Bruce was a Fellow of the American Concrete Institute, the Prestressed Concrete Institute, and the International Association of Bridge and Structural Engineering. He served as President of the Louisiana Section of the American Society of Civil Engineers. As a pioneer in the field of prestressed concrete, Dr. Bruce led North American technical delegations to Japan, China, Hungary, the Soviet Union, Czechoslovakia, Australia, and New Zealand. His study abroad included Scotland and Switzerland; and included Fulbright Scholarships to Belgium, Burma, and Hungary. Dr. Bruce was recognized as the Tulane School of Engineering Outstanding Alumnus in 1995, was inducted into the Tulane Engineering Hall of Fame in 2006 and was the recipient of the American Society of Civil Engineers' T.Y. Lin Award in 2008 and 2012. He produced the publication "Engineering a Century," the history of the first 100 years of engineering education at Tulane. In 2001 he was recognized for his outstanding achievements by the Precast/Prestressed Concrete Institute and again in 2016, when he received the Lifetime Achievement Award from the Gulf South Precast/Prestressed Concrete Association. He was a member of the Southern Yacht Club and Rangoon Sailing Club and was a Founder of the Friends of the Nydia. Dr. Bruce inspired countless students in engineering with his keen intellect, high expectations, and genuine interest in his students' lives and success, often expressed through his colorfully detailed stories. Donations in Dr. Bruce's memory may be directed to the Tulane University School of Science and Engineering for the Robert N. Bruce, Jr. Scholarship in Engineering.

ASCE AMERICAN SOCIETY OF CIVIL ENGINEERS

REGISTRATION FORM

2020 ASCE Louisiana Section Conference
September 17 – 18, 2020
City Club at River Ranch, 1100 Camellia Blvd #202, Lafayette, LA 70508

Part 1. Registrant Information (*Required)			
a. First Name*	b. Last Name*		
c. First Name as to Appear on Name Tag*	d. Class ___ P.E. ___P.L.S. ___Ph.D. ___E.I.		
e. ASCE Member Number* (If Applicable)			
f. Company Name			
g. Street	h. City	i. State	j. Zip
k. Telephone*	l. Email*		

Part 2. Individual Registration (Check all that apply)		
Registration includes breakfast, lunch, and admission to all technical sessions and events on specified day(s).	**Postmarked ON or BEFORE August 15, 2020**	**Postmarked AFTER August 15, 2020**
STUDENT TWO-DAY/FULL REGISTRATION:		
ASCE Student Member / Non-Member	**$20____**	**$40____**
TWO-DAY/FULL REGISTRATION:		
ASCE Member (*Indicate member number in Part 1*)	**$250____**	**$300____**
Non-Member	**$300____**	**$350____**
THURSDAY REGISTRATION (*Networking Event*):		
ASCE Member (*Indicate member number in Part 1*)	**$175____**	**$225____**
Non-Member	**$200____**	**$250____**
FRIDAY REGISTRATION:		
ASCE Member (*Indicate member number in Part 1*)	**$125____**	**$175____**
Non-Member	**$150____**	**$200____**
Total :		

Please make checks payable to: **ASCE Acadiana Branch**

Mail form with payment to: ASCE Spring Conference
P.O. Box 60805
Lafayette, LA, 70596

For questions concerning the conference, contact: asceacadiana@outlook.com

ASCE AMERICAN SOCIETY OF CIVIL ENGINEERS

GENERAL CONFERENCE SPONSOR & EXHIBITOR FORM

2020 ASCE Louisiana Section Conference
September 17 – 18, 2020
City Club at River Ranch, 1100 Camellia Blvd #202, Lafayette, LA 70508

SPONSORSHIP TYPE	***COST***	***SELECTION***
Platinum *NETWORKING EVENT SPONSOR* *Includes two full registrations with recognition as a sponsor at the conference and networking event.*	*$1000*	_____
Gold *BADGE SPONSOR* *Includes one full registration with recognition as a sponsor at the conference and on all badges.*	*$750*	_____
Silver *LUNCH SPONSOR* *Includes one full registration with recognition as a sponsor at the conference and lunch on both days.*	*$500*	_____
Bronze *BREAKFAST SPONSOR* *Includes recognition as a sponsor at the conference and breakfast on both days.*	*$250*	_____

EXHIBITORS		
EXHIBITOR PACKAGE *Includes a 6' table and two chairs for the entire conference. Package includes breakfast and lunch (Thursday & Friday) and networking event admission for two persons.*	*$600*	_____

Total Amount Remitted: _____

NAME: _____ *PHONE: (__ __)*_____ *EMAIL:* _____

COMPANY: _____

MAILING ADDRESS: _____ *CITY:* _____ *STATE:* _____ *ZIP:* _____

PLEASE MAKE CHECKS PAYABLE TO: ***ASCE Acadiana Branch***

Mail this form & payment to:
ASCE Spring Conference
P.O. Box 60805
Lafayette, LA 70596
For questions concerning sponsorship or exhibits contact: asceacadiana@outlook.com

TTC Publishes Environmental Impact Study of Steam-Cured CIPP

By Dr. John Matthews, Director, Trenchless Technology Center (TTC) &
Dr. Elizabeth Matthews, Assistant Professor, Louisiana Tech University

Dr. John Matthews

BACKGROUND

In response to the recent questions about the environmental impact of emissions from steam-cured CIPP projects, the Trenchless Technology Center (TTC) at Louisiana Tech University has published it results from a study on this topic. This comprehensive project, which was funded by NASSCO and peer-reviewed by a large group of industry stakeholders, was undertaken to collect data from multiple projects under various climatic conditions and using varied sampling tools to determine the extent of potential impacts. Study objectives were to evaluate air emissions from steam-cured CIPP installations and then determine potential impacts to workers and the surrounding community. The objectives were accomplished by measuring worker exposure to emissions onsite and immediately offsite. The construction sites selected represented a range of scenarios typical of CIPP installations from small to large diameter, various lengths, and mixed usage environments. The locations were selected to capture jobsites in varies climates; however other limiting factors were considered (e.g. availability, project and site characteristics).

The results of the study were presented in a webinar in December 2019 and the final report is now posted along with the recorded webinar on the NASSCO website. Also included on the website are responses to comments from the live webinar. Many of the comments were already addressed in the report, but further clarification is provided to help the readers.

KEY RESULTS

A full description of the methodologies and results can be found in the report. Key results worth highlighting are mentioned below. Based on the broad sampling and testing in this project, the only two locations where styrene levels could potentially pose any health risks were inside the transport truck and near the emission stack. Styrene emissions from inside the transport trucks consistently measured between 100 ppm to 200 ppm, which could potentially pose health risks to workers if durations exceeded 5 minutes. It's worth noting that none of the previously studies focused on of their testing at the transport truck location. It's also worth mentioning that the samples were being analyzed for more than a dozen VOCs, but that styrene was found at any measurable level. This finding was in contrast to other studies that suggested multiple VOCs were being detected at significant levels.

Results for emissions near the stacks were mostly lower than the transport trucks, but potentially a risk if exposure durations approached 5 minutes. No measurement taken at a distance of 10-ft or more from the termination manhole and/or exhaust stack exceeded exposure limits. In fact, those levels were far below guideline levels. Several variables like wind, temperature, and distance from the exhaust affect the dispersion of styrene, which most likely explains the range in concentration values. Of note here is that although numerous measurements were taken at multiple sites using multiple methods, there was no corroboration of the extremely high values that had previously published by some researchers that regularly exceeding 500 ppm. This calls into question the previously published higher levels which led to this study as there have been several others published studies in the past that had results more closely aligned with TTC study.

Finally, measurements taken in homes near exhaust points yielded styrene concentrations less than 0.01 ppm. This suggests there is little potential danger of styrene emissions collecting in homes and rising to levels above exposure limits. Further research on this topic is being conducted by others researchers and industry currently. Data collected by sorbent tubes mounted on workers or at points to approximate worker exposure revealed no episode where the exposures averaged over the duration of the installation exceeded any threshold limits. This would suggest that CIPP installers experience safe long-term exposures to styrene.

KEY RECOMMENDATIONS

The opening of the liner transport truck door represents a point in the CIPP installation process where there is potential exposure to dangerous levels of styrene. It is assumed, however, that styrene levels begin to dissipate the moment the liner transport truck is opened and could drop to acceptable short-term exposure levels soon after the door is opened. For these reasons, the TTC recommends:

For those immediately entering the liner transport truck or storage unit, active air monitoring should be utilized at the initial opening of the truck or storage unit door to ensure a safe work environment.

At the initial opening of the liner transport truck or storage unit door, suitable PPE should be worn by those immediately entering the truck or storage unit.

This recommendation will ensure safe handling of the liner for nearly all potential levels of styrene.

The area very near the exhaust stack and/or termination manhole at a steam-cured CIPP installation site and any area contained within the visible plume of the exhaust points appear to be the locations on the jobsite where there is the greatest potential for exposure to airborne styrene above the limits set by OSHA, NIOSH and the EPA/CDC. The styrene measurements taken at the exhaust points could represent styrene levels that endure for portions of the curing process that exceed 5, 15, or 30 minutes. For these reasons, the TTC team recommends:

A conservative perimeter of 15-ft be implemented around exhaust manholes/emission stacks during curing. This perimeter could be entered for less than 5 minutes. If this area is entered for longer than 5 minutes, suitable PPE should be used.

Emissions stacks should be a minimum of six feet tall to enhance the dispersion of emissions and lessen the likelihood of workers entering the perimeter from having to cross into the plume.

This recommendation will ensure safe operations around the stack areas for the duration of the lining project.

In areas surrounding the exhaust stack, the data suggests that styrene dissipates rapidly and that exposure to styrene above regulatory guideline limits is unlikely outside of a 15-ft radius around emissions points. Based on the data it is also unlikely that styrene levels would rise to a level that presented any danger to residents inside buildings. Future studies of CIPP emissions should focus on determining the time it takes liner truck emissions to dissipate and further evaluating specific task-oriented emission impacts.

ACKNOWLEDGMENTS

The authors acknowledge research team members at the TTC – Dr. Shaurav Alam, Dr. Sven Eklund, Ashlesh Banjara, Hawa Hashm, Gazi Hossain, Jason Howell, John Kraft & ERDC – Dr. Anthony Bednar and Charles Laber. The authors acknowledge financial support from NASSCO.

Horizontal exhaust steam curing in Shreveport, LA.

Vertical exhaust steam curing in St. Louis, MO.

Large-diameter steam curing in Aurora, CO.

Dr. Matthews is the Director of the Trenchless Technology Center and an Associate Professor at Louisiana Tech University. He has 15 years of experience in the rehabilitation and inspection of pipelines. He has authored more than 200 technical publications and currently serves on the Board of Directors of the North American Society for Trenchless Technology (NASTT).

ASCE-COPRI Louisiana Chapter News

By Victoria Curto, PE, Director - Communications

COPRI
COAST, OCEANS, PORTS AND RIVERS INSTITUTE
Louisiana Chapter

The Louisiana Chapter of the American Society of Civil Engineers (ASCE) Coasts, Oceans, Ports, and Rivers Institute (L.COPRI) is continuing to promote membership and visibility throughout the State of Louisiana by conducting joint seminars with local Branches and State Sections of ASCE.

Spring Online Seminar

L.COPRI originally planned to hold a half-day seminar and boat tour at the Port of NOLA in mid-April, but due to COVID-19 we have decided to offer an online seminar in late May or June that will focus on the Port of NOLA master plan. Please watch for email announcements about the upcoming online webinar.

COPRI Council of Committee Chairs Meeting

Dennis Lambert, Tyler Ortego, and Myriam Bou-Mekhayel attended the national COPRI Council of Committee Chairs Meeting in early December on behalf of L.COPRI. Institute news and business were discussed including the anticipated pandemic and their effects on COPRI conferences. National COPRI is currently discussing whether to cancel, postpone, or switch to online conference formats.

Other Information

For more information on all COPRI conferences, please visit http://www.asce.org/coasts-oceans-ports-and-rivers-engineering/coastal-engineering-conferences-and-events/.

The activities of L.COPRI will include seminars, workshops and other activities to benefit all ASCE and COPRI members. One does not have to be an engineer to join COPRI. These Institutes are formed for the benefit of ASCE and non-ASCE members to participate and interact with other professionals interested in coastal, oceans, ports, and riverine efforts in Louisiana. If you have any questions or to add your name to our mailing list, please contact LCOPRI@yahoo.com.

As part of ASCE's ongoing effort to improve our nation's infrastructure, we are working closely with the Transportation Construction Coalition (TCC) - a partnership of 31 national associations and construction unions representing hundreds of thousands of individuals with a direct market interest in federal transportation programs. As the COVID-19 pandemic continues, the TCC has been a united voice in urging Congress to continue to negotiate on COVID-19 response, which includes an immediate infusion of $49.95 billion for state departments of transportation and a multi-year surface transportation bill.

As one of the 150,000 members of the American Society of Civil Engineers (ASCE), please take this opportunity to urge Congress to provide immediate and necessary relief that allows our state and local governments to continue critical capital projects and maintenance work on our roads, bridges, transit, and water systems.

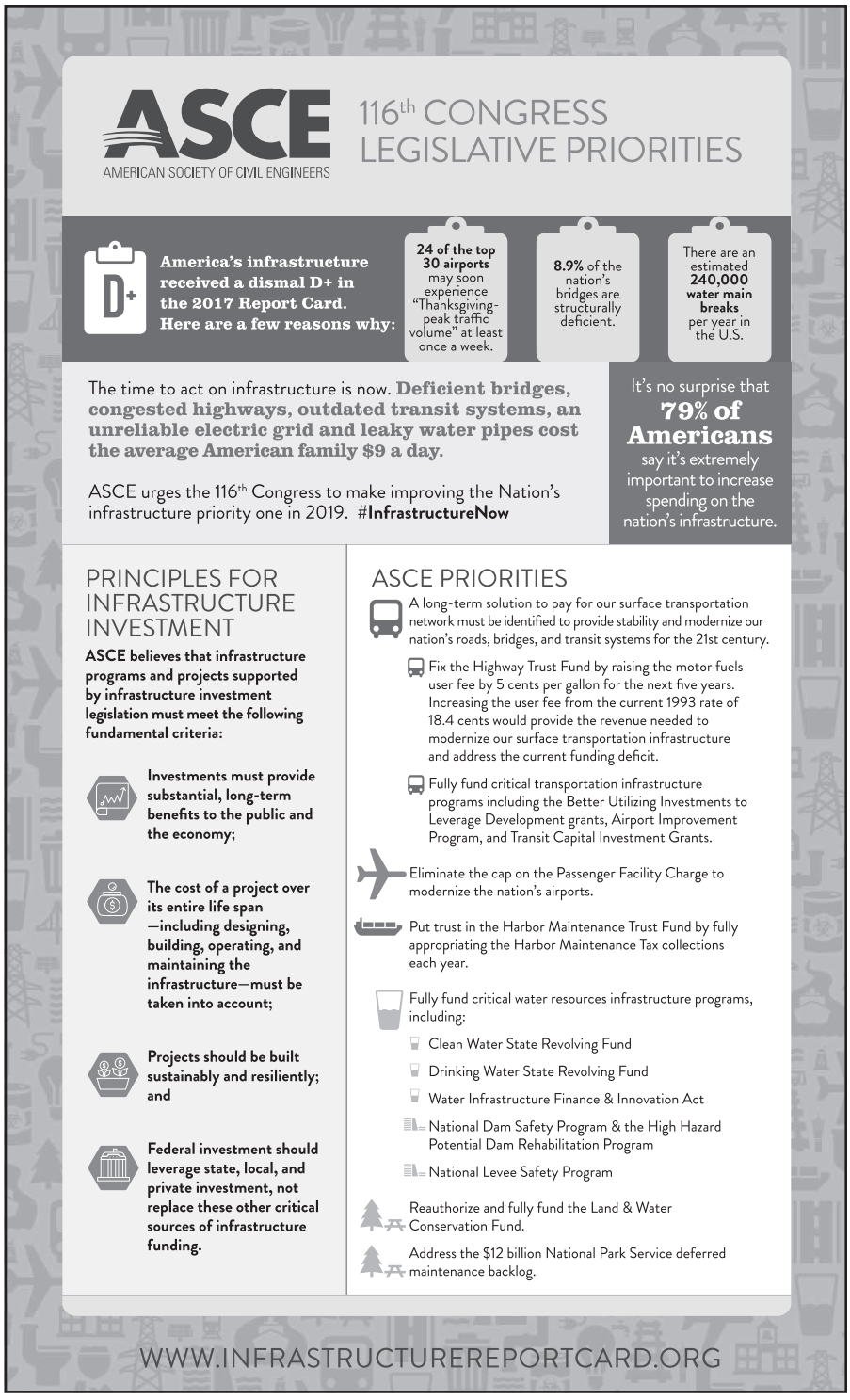
As the current crisis creates prolonged uncertainty, state DOTs and transit agencies are facing significantly reduced revenues for critical transportation needs. Projects are on hold and our nation's maintenance backlog is growing. Drinking water utilities also face hardships as many of their customers are receiving services without pay due to reduced commercial water use, as well as moratoriums on service disconnections that have been enacted. Water utilities need relief to avoid having to pass along the current costs of operation to customers in the form of rate hikes.

Congress should include the following in the next relief package as soon as possible:

- $50 billion in emergency relief funds for state DOTs to ensure capital construction and operation programs can continue.
- Robust funding for state and local governments, as well as payroll relief for public sector agencies through the State and Local Leaders Act.
- $30 billion in emergency relief for the nation's struggling drinking water and wastewater utilities.
- $24 billion in additional relief funds for the nation's transit agencies.

In ASCE's 2017 Infrastructure Report Card, our nation's infrastructure received a cumulative grade of a "D+," with an investment gap of $2 trillion. As our infrastructure continues to age, failing to close that gap risks rising costs, declining business productivity, lost jobs, and ultimately, reduced disposable income for every American family to the tune of $9 a day. Without action, our nation's $2 trillion infrastructure deficit will continue to grow, hurting economic recovery efforts and negatively impact the quality of life for each American.

Get started on learning about policy issues that affect your profession and identifying your elected officials through ASCE's "Click & Connect with Congress" advocacy website http://cqrcengage.com/asce/?2



ASCE-T&DI Louisiana Chapter News

By Michael Paul, PE - Newsletter Editor

Observation Method for Scour (OMS) Seminar

On February 12 the T&DI Louisiana Chapter hosted the Observation Method for Scour Seminar at the Patrick F. Taylor Hall at LSU in Baton Rouge. This presentation discussed a new bridge scour assessment method called the Observation Method for Scour (OMS). The proposed method does not require site specific erosion testing and accounts for time dependent scour in erosion resistant materials. The OMS makes use of charts that extrapolate or interpolate measured scour depths at the bridge to obtain the scour depth corresponding to a specified future flood event. The scour vulnerability depends on the comparison between the predicted and allowable scour depths. This presentation also included a new hydraulic-hydrologic analysis procedure for the determination of flow parameters required in OMS. Nine case histories that were used to validate OMS were included in the presentation.

The speaker was Professor Jean-Louis Briaud, PE who is a Distinguished Professor and Holder of the Spencer J. Buchanan Chair in the Zachry Department of Civil Engineering at Texas A&M University and also a Professional Engineer.

From Left: Gavin Gautreau, PE and Dr. Jean-Louis, PE Briaud

Looking Ahead

The intent of T&DI is to promote transportation and development as a career path, and to provide training and networking opportunities for all professionals involved in the transportation industry. If you are interested in co-sponsoring a seminar at your branch, the T&DI Louisiana Chapter has prepared a Seminar Coordinator's Check List to assist you in your preparation. Contact Gavin Gautreau Gavin.Gautreau@LA.GOV for a copy of the checklist. Our seminars are two hours in length and are typically presented from 5:30-7:30 pm in either the New Orleans or Baton Rouge area. We have also presented out-reach seminars with the ASCE Acadiana Branch and Shreveport Branch. We are open to co-hosting seminars in additional Louisiana cities if requested. In keeping with the intent of the Institute to provide training and networking opportunities for all professionals involved in transportation projects, the Chapter is planning the following future seminars:

- CN Railroad Bridge Replacement at Bonne Carre
- Asset Management for Agencies
- Mitigation Banking
- Green Infrastructure: Integrating Infrastructure Needs
- Bicycle Lanes / Complete Streets
- New Orleans Armstrong Airport
- Bridge Approach Slabs

Jacob Neu, EI

ACADIANA BRANCH

By Jacob Neu, EI, Branch President

Greetings! Due to the ongoing COVID-19 pandemic, our conference, which was originally scheduled to take place in April, has been rescheduled to September 17th and 18th. Updated details can be found at our conference website at http://branches.asce.org/acadiana/2020-asce-spring-conference. This website also has a link to our convenient online registration and payment tool.

We encourage everyone who plans to attend the conference to take advantage of early registration discounts (registration prices now go up after the 17th of August).

Please note the following if you have previously registered with us for the conference, as your registration will automatically be transferred:

If these new dates work for you and your schedule as it relates to your existing registration, no action is needed on your part.

If you wish to modify or cancel your existing registration as a result of these new dates, please let us know and we will be happy to accommodate your needs.

For conference attendees visiting from out of town, a block of hotel rooms is set aside (at a discounted rate of $114/night) for reservation at Spring Hill Suites (321 Settlers Trace Boulevard). To book a room for the conference, one may either call 337-981-5512 and mention "ASCE Conference" to get the discounted rate, or visit the link provided on our website.

We previously mentioned that we will be hosting a free crawfish boil for conference attendees, sponsors, and exhibitors on Wednesday evening before the conference. This social gathering will still take place before the rescheduled conference, although crawfish may no longer be offered. This event will be held at Spring Hill Suites for the convenience of our out-of-town guests. If you are participating in our conference and wish to attend this event, please send me an email at janeu@sellersandassociates.com.

If anyone has any questions regarding our upcoming conference, please contact me (or any member of our board) at your convenience.

Thank you all for the continued support, and we look forward to seeing everyone in September at our conference.

I hope that all of you and your loved ones are, and remain, safe and healthy.

Dean Nicoladis, PE

NEW ORLEANS BRANCH

By Constantine "Dean" F. Nicoladis PE, Branch President

The ASCE New Orleans Branch will be matching member's donations to certain organizations supporting those most affected by COVID-19.

During this challenging time, the ASCE New Orleans Branch desires to give back to our community and to encourage our members to do the same. The Branch is fortunate to have a budget surplus due to the overwhelming success of last year's Louisiana Civil Engineering Conference and Show. LCECS was so successful due to the commitment of our members, and we now call upon the generosity of our members to leverage that success for the benefit of our community.

Many within our profession are fortunate during this time to be able to continue working and avoiding disruptions to our incomes. Many others are not so fortunate, particularly in the Greater New Orleans area, which depends so heavily on tourism and the service industry. With that in mind, the ASCE New Orleans Branch has donated $100 each to the initiatives below that are supporting people whose livelihoods have been impacted by COVID-19. The Branch will match members' donations up to a total of $2,500. We encourage our members to donate the organizations below and send the receipt to Kyle Galloway, our Treasurer, at kgalloway@gisy.com.

- UNO First Student Support Fund – In light of our close relationship with UNO's College of Engineering, we are supporting the University's fund that benefits students who are struggling financially and/or academically due to COVID-19.
- Second Harvest Food Bank – COVID19 has created a surge in demand for food assistance. Entergy is also matching gifts to Second Harvest, so your donation would be tripled!
- Gayle Benson Community Assistance Fund – Gayle Benson, the Greater New Orleans Foundation, and the McIlhenny Co. formed this fund to support service and hospitality workers whose livelihoods have been impacted by COVID-19.
- Gig Workers Relief Fund – The New Orleans Business Alliance started this fund to support musicians, arena workers, festival production staff, and rideshare drivers whose livelihoods have been impacted by COVID-19.

Jarret Bauer, PE

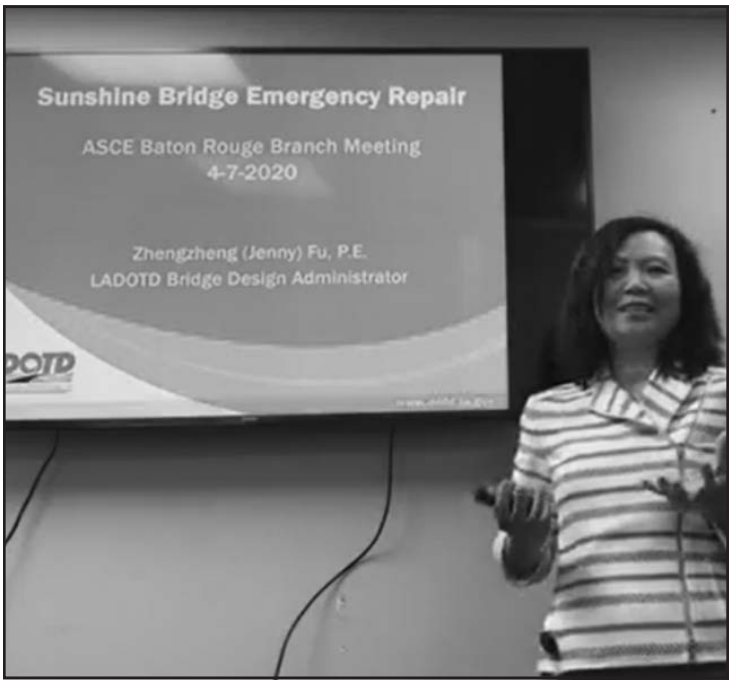
BATON ROUGE BRANCH

By Jarret Bauer, PE, Branch President

The ASCE Baton Rouge Branch would like to start by wishing everyone well during this interesting time in our profession and our lives. As we all have been grappling with the stay-at-home order, the Branch has made an effort to realize personal and professional time is intertwined now more than ever. To that end, the Branch has been especially active helping to bring our technical speakers and PDH opportunities directly to our membership.

Congressman Garret Graves Streaming Live

I am extremely proud of our branch board, especially our Director of Programs, Robb Jewell, and our Director of Education/Young Member Chair, Jack Koban. These two individuals have been instrumental in assisting me to host Facebook Live events over the past two months. We hosted Congressman Garret Graves in March to speak about WRDA and the Surface Transportation Reauthorization Act, and Jenny Fu, PE in April to speak about the Sunshine Bridge Emergency Repair effort. Both events were streamed live to our membership, while these two Board Members and myself formed a makeshift audience with our speakers and monitored online attendance and questions from our laptops.



Jenny Fu, PE Presenting on the Sunshine Bridge Emergency Repair

Both events garnered nearly 50 live views during the events, and, together, both events have since been shared over 1,100 times and are available for view on our website! What fantastic exposure for these events, our Branch, and our profession!! Each event featured an interactive question and answer session, and we were able to offer PDHs for all of our members that tuned in and identified themselves.

Last but not least, the Branch intends to donate our sponsorship revenues for each of these events (and all going forward during this stay-at-home order), to Juban's Restaurant. Juban's would otherwise be hosting our membership for these events and is part of our effort to give back to our local businesses during this time.

We look forward to meeting again in person soon for our annual awards and other exciting opportunities!

Linsey B. Olivier, EI

SHREVEPORT BRANCH

By Linsey B. Olivier, EI, Branch President

Greetings to everyone from the Shreveport Branch! In February, we hosted our monthly luncheon with Will Brantley from Contech Engineering Solutions, LLC. Our March luncheon was a joint meeting hosted by Louisiana Engineering Society. The topic was on Ethics and featured Jeff Pike, PE, from Louisiana Tech University. Our April luncheon was canceled, but we have extended our invitation to our speaker, Dr. Henry Cardenas with Louisiana Tech to speak in the Fall.

At the onset of the Governor's Stay-At-Home Order, we were preparing for our Annual Spring Golf Tournament that usually takes place in May. Due to the uncertainty of the situation, it was canceled. We are working on planning the Golf Tournament towards the end of the summer. We were also planning on hosting the Fall Banquet to welcome the new members of the Louisiana Section. Due to rescheduling of the Spring Conference to September, we have decided to combine the Annual Spring Conference and Fall Banquet. This has definitely been an unusual term, but we are working on moving forward. Stay safe and hope to see y'all soon!

ASCE-SEI New Orleans Chapter News

By Mark Castay, PE

STRUCTURAL ENGINEERING INSTITUTE
New Orleans Chapter

ASCE SEI New Orleans Chapter started this year with several volunteering efforts to support local students inclined to math and science careers. Every year SEI New Orleans Chapter members attend the annual Mathcounts competition and assist in various roles to support students competing on timed testing to solve challenging math problems. Students that excel in the competition can then move on regional and state competitions. The event was held February 1,2020 and the hard-working students enjoyed pizza and snacks for their efforts in preparing during the year. Congratulations to the students who were able to advance!

The SEI New Orleans Chapter also had several representatives present at this year's Greater New Orleans Science & Engineering Fair held at Tulane University on February 10-13, 2020. SEI New Orleans Chapter participates in judging at the competition and presenting awards for student's civil engineering research projects and presentations. This year's winners, projects and teachers are as follows:

Junior Division

- 1st Place - **Gavin McDow** (Holy Cross School), "What kind of roof shape would do the best in hurricane force conditions"
  Tara Lavender (teacher)
- 2nd Place - **Abigail Walsdorf** (John Curtis Christian) , "What kind of soil can bear the most weight"
  Kathy Bush (teacher)

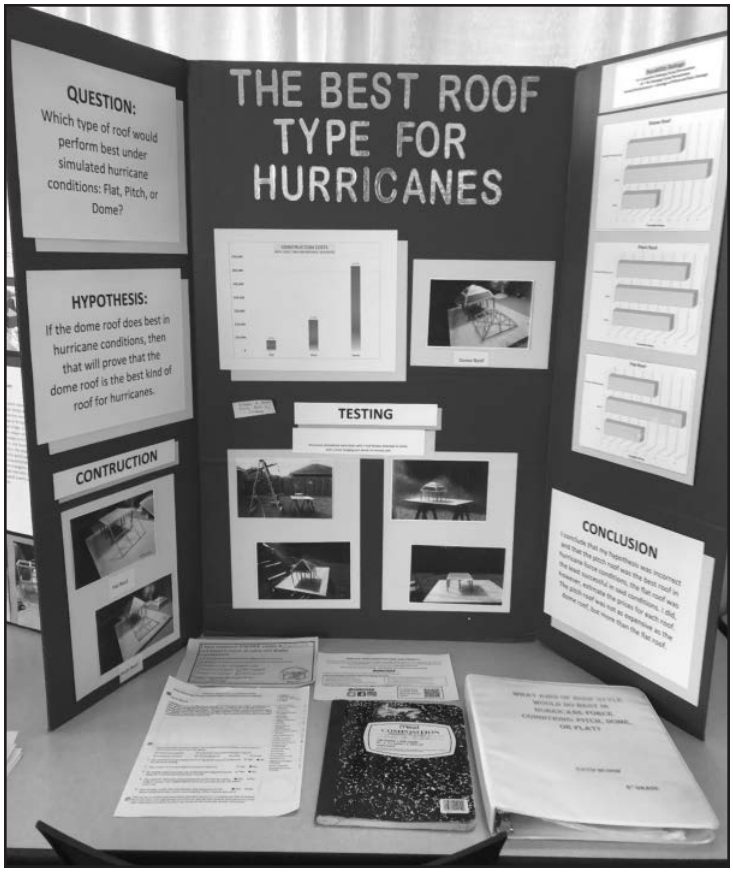
Senior Division

- 1st Place - **Alex Giancona** (Holy Cross School), "Cluster Buster: What 3D printed shape cluster is best at resisting compression forces?
  David Lindsey (teacher)
- 2nd Place - **Nicholas Ward** (John Curtis Christian), "Which type of bridge design will hold the most mass?"
  Cathy Boucvalt (teacher)

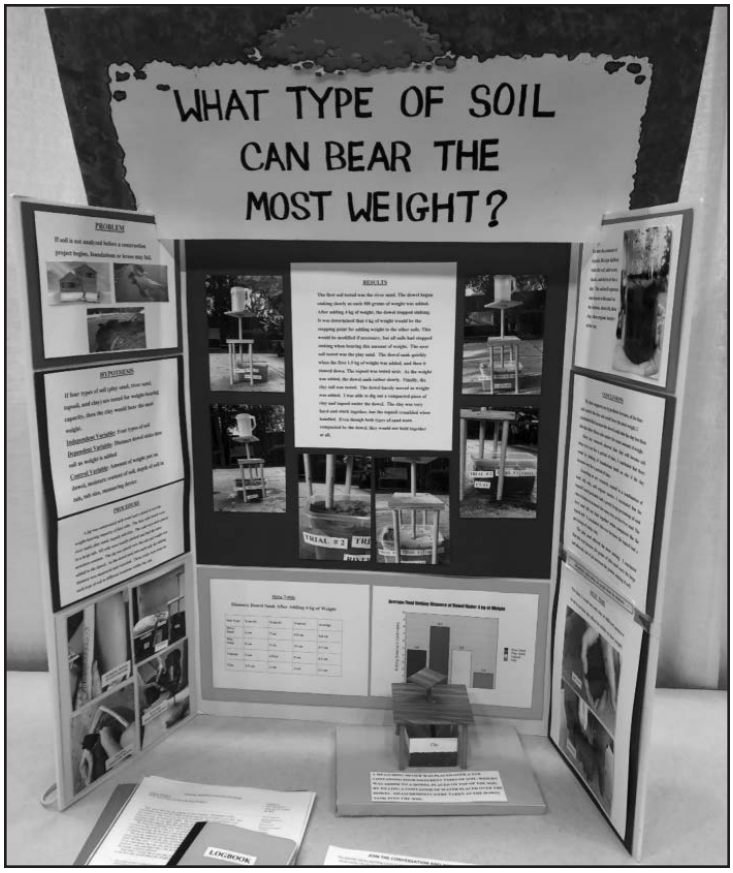
Congratulations to all this year's winners for all their hard work in addition to their teachers for guidance and leadership!

It was unfortunate that the Chapter had to cancel the spring seminar "Performance Based Design is the future" Co-sponsored with The SEI FUTURES FUND in collaboration with the ASCE FOUNDATION originally scheduled for March 19, 2020 due to the Covid-19 pandemic. We are currently exploring a reschedule of this seminar in addition we also have several exciting topics in the works including the Higgins lecture which will offer a 1-hour PDH for ethics and additional 1 hour general PDH. For further information visit us at SEI NO Chapter www.asceneworleans.org/events/ and please stay tuned for great seminar presentations coming your way!

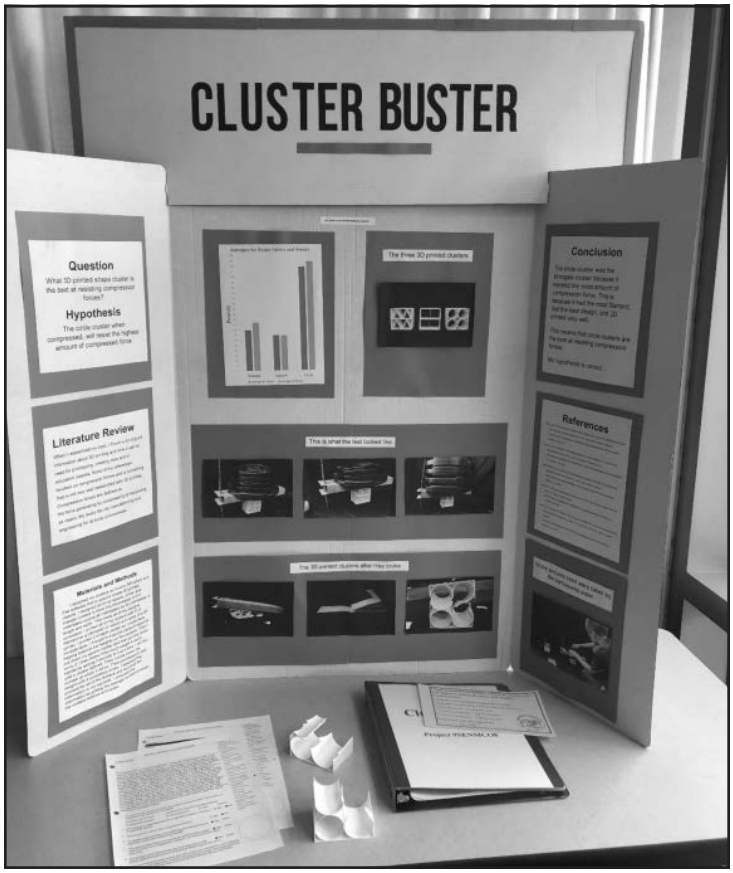
Left to right: Mark Castay, PE, Kabir Mohammed, PE, and Om Dixit, PE Volunteering at Mathcounts 2020 at the University of New Orleans Engineering Building



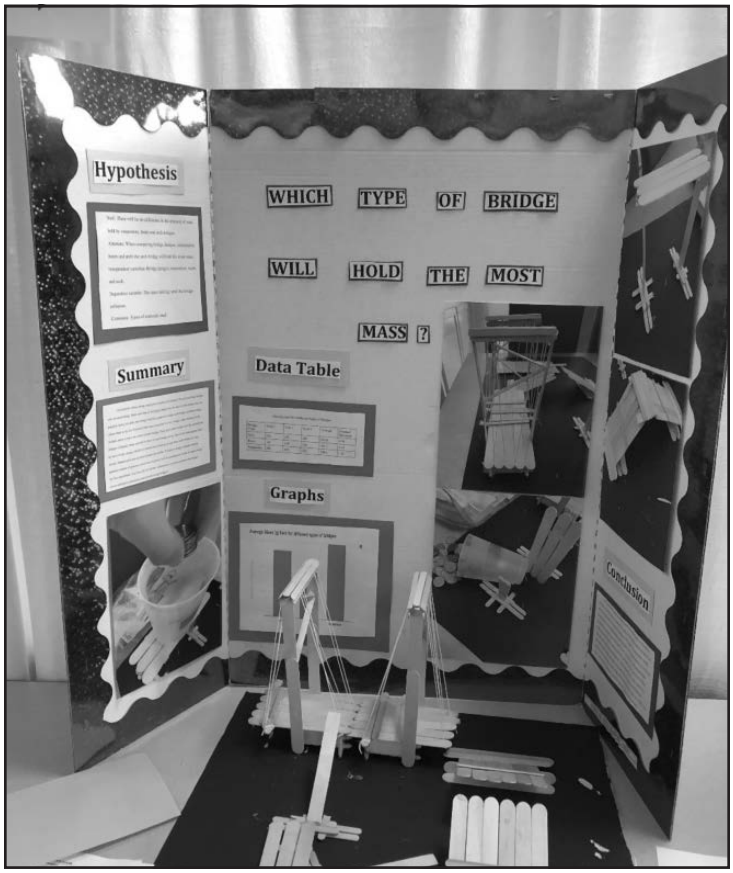
Junior Division 1st Place winner Gavin McDow (student) and Tara Lavender (teacher)



Junior Division 2nd Place winner Abigail Walsdorf (student) and Kathy Bush (teacher)



Senior Division 1st Place winner Alex Giancona (student) and David Lindsey (teacher)



Senior Division 2nd Place winner Nicholas Ward (student) and Cathy Boucvalt (teacher)

LOUISIANA STATE UNIVERSITY

By Emily Rone, LSU Student Chapter President

The Spring 2020 semester was off to a great start as our competition teams were preparing for regionals and the beginning of semester brought new smiling faces to our Tuesday meetings. Our main goal this semester was to increase our community involvement with volunteer events such as Geaux Big LSU and Engineering Day at the Louisiana Arts and Science Museum. Even though those events were cancelled, our community outreach chair, Stephen Williams, had already achieved our goal by coordinating with the Baton Rouge Branch of ASCE to volunteer at local elementary schools. Our members lead the students through various engineering activities that introduced fundamental Civil Engineering principles in an interactive way. Our officers even developed an activity for the students involving Jell-O, marshmallows, and toothpicks that taught about earthquake engineering and the importance of a stable foundation.

We are really proud of our competition teams and the progress they made this semester. Our fearless canoe captain, Olivia Kilpatrick, lead a dedicated team that met all deadlines and made a truly beautiful canoe. Even though the 2020 Deep South Regional competition did not happen, we are excited to accept the honor of hosting Deep South at LSU next year! We look forward to how our chapter will continue to grow in the upcoming semester.

Volunteer Day at Audubon Elementary

2019-2020 Canoe Team

— CALENDAR OF EVENTS —

2020

2020 ASCE Louisiana Section "Spring" Conference . . . . . September 17-18, 2020
Lafayette, LA (see registration insert in this journal)
http://branches.asce.org/acadiana/2020-asce-spring-conference

Events are constantly being updated online:

For ASCE Society events please see online:
https://www.asce.org/conferences_events/
https://www.asce.org/student_conferences/

For ASCE Baton Rouge events please see online:
http://branches.asce.org/baton-rouge/events

For ASCE Shreveport events please see online:
https://www.facebook.com/ASCEShreveport/

For ASCE Acadian events please see online:
http://branches.asce.org/acadiana/events

For ASCE NOLA events please see online:
http://asceneworleans.org/events/

For more events visit the ASCE Events Calendar: **http://www.lasce.org/calendar.html**

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