# 2020 LOUISIANA

## Engineering Excellence Hwards



Presented to you by



"ADVANCING THE BUSINESS OF ENGINEERING"

#### FROM THE CHAIRMAN



David Dupre, P.E.

ACEC of Louisiana Chairman

Meyer Engineers, Ltd.

Although delayed, ACECL refused to let 2020 rob us of the opportunity to recognize and honor the firms, clients and projects that were judged to be worthy of an Engineering Excellence Award.

On March 26, 2021 we celebrated engineering at the 2020 Engineering Excellence Awards gala held in Baton Rouge. We welcomed firms, partners, and the owners who worked hand in hand to deliver on these award-worthy projects.

We honored 14 projects performed across the country. From New Orleans to Natchitoches and South Arkansas to Seattle. Whether civil or MEP. Public or private. These projects represented engineering at its best. They represented uniqueness and innovation, value to the engineering profession and enhanced public awareness. They adhered to social, economic, and sustainable development and fulfilled their client's needs. Simply put, they are all tangible examples of the essential role engineering plays in the everyday lives of Louisiana citizens.

Projects were scored on the following criteria:

- Uniqueness and/or innovative application of new or existing techniques
- Future value to the engineering profession and enhanced public awareness/enthusiasm of the role of engineering
- Social, economic, and sustainable development considerations
- Complexity
- Successful fulfillment of client/owner needs

ACECL thanks the firms and partner owners who invested valuable time, expertise and resources to ensure the successful execution of these fourteen award winning projects. We hope you enjoy reading about each project and that you will be inspired to submit one of your own projects in 2021. More information about the 2021 EEA Program will be sent to the ACECL membership and posted on the ACECL website, <a href="www.acecl.org">www.acecl.org</a>, in the coming weeks.

**EEA SAVE THE DATES!** 

Call for 2021 Entries: July 15, 2021

EEA Awards Gala: March 10, 2022

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### THE CONFIDENCE OF EXPERIENCE



ACEC ENGINEERING







University of Louisiana Lafayette & Poché Prouet Associates Receiving Grand Award in Energy from ACECL President/CEO for Solar Field Lab

Category: Studies, Research and Consulting Engineering Services
Firm: C.H. Fenstermaker & Associates, LLC (Lafayette)
Clients: City of Scott and Lafayette Consolidated Government
Project: Coulee Ile des Cannes FEMA Physical Map Revision





C.H. Fenstermaker developed a complex hydrologic and hydraulic numerical model to map the FEMA Flood Hazard Areas of the Ile des Cannes Watershed in partnership with the City of Scott and the Lafayette Consolidated Government. This project resulted in the largest Physical Map Revision to date approved by FEMA in the United States.



ADG of Lafayette developed a state-of-the-art Seawater Capture system for NOAA that allows for a variety of water temperatures to be available at each research location within the facility. The design included various filtration and water treatment system options needed by scientists for their crucial eco science research. This project was also the recipient of the Grand Conceptor Award for 2020.

**Category: Structural Systems** 

Firm: All South Consulting Engineers, LLC (Metairie)

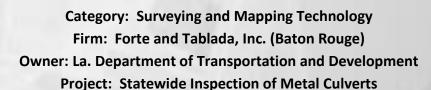
**Client: Terrebonne Port Commission** 

Project: Terrebonne Port Industrial Boulevard North Soil Improvements & Bulkhead





All South Consulting Engineers of Metairie developed significant soil and bulkhead improvements for the construction of a 6,000-ton commercial fishing vessel at the Terrebonne Port converting essentially a swamp with organic material down to 15 feet into a world class shipyard and manufacturing facility.









On behalf of DOTD, Forte and Tablada performed inspection and field measurement for almost 230 submerged corrugated metal culverts which met the criteria for bridges. Following an extensive research and development phase, Forte & Tablada invented their own instrumentations based on each condition to successfully collect the required field measurements for the inspections.



G.E.C. Incorporated, selected by the St. Bernard Parish Government, designed a subsurface drainage improvement project utilizing the ground above the newly enclosed box culvert drainage system for a multi-use path in accordance with the parish's Bikeway & Pedestrian plan and Complete Streets policy.



C.H. Fenstermaker partnered with Lafayette Consolidated Government on the East Pont Des Mouton roadway widening and water/sewer design project to increase the capacity of a corridor that grew from 2,700 daily vehicles to 12,600. Along with increasing drinking water capacity, fire protection access and sewer collection, this project enhanced traffic flow and preserved three heritage class live oak trees dating over one hundred years old.

**Category: Energy** 

Firm: Poche' Prouet Associates, LLC (Lafayette)
Owner: University of Louisiana at Lafayette

Project: Photovoltaic Applied Research & Testing (PART) Lab





Partnering with ULL, Poche' Prouet Associates designed the Photovoltaic Applied Research & Testing (PART) Lab project, a solar energy power plant that also functions as a multi-use facility supporting the university's sustainability, teaching, research, workforce development and outreach goals. The project saves ULL approximately \$10,000 per month on its electric bill.



Hunt Guillot and Associates partnered with Standard Lithium to design and construct a first-of-its kind facility using Standard Lithium's proprietary Lithium Extraction technology to extract and process over 20,900 tonnes of battery-grade lithium carbonate. HGA's engineering, instrumentation, and design teams collaborated with Standard Lithium to create their pilot plant featuring a scalable process to capture over 90% of the lithium in a matter of hours — not months or years. The project will play a pivotal role in reducing North America's overall dependence on foreign lithium resources.

#### **HONOR AWARD WINNERS**



Working with the Port of New Orleans, T. Baker Smith was selected to provide topographic and hydrographic data collection services on a terminal conversion project. T. Baker Smith utilized a combination of conventional survey methods, terrestrial scanning, and hydrographic multi-beam scans in unison. The methods utilized allowed for safe data gathering and uninterrupted port operations.



In response to the emergency rescues and widespread property damage caused by a nearly 500-year flood that inundated the City of Carencro in March of 2012, the City partnered with C.H. Fenstermaker on design solutions to protect the city from flooding and provide future growth capacity. The largest lift station in the parish is now protected from the 500-year base flood elevation collecting 75% of the City's wastewater and pumping it to the existing treatment plant.

#### **HONOR AWARD WINNERS**

Firm: Hunt, Guillot & Associates (Ruston)
Owner: Aethon Energy

HONOR

AWARD

**Project: Aethon, Sligo to Wiggins Pipeline Route Analysis** 



Utilizing a RouteNAV to reduce the environmental impacts of a new pipeline route bringing additional natural gas supply to an existing pipeline system in Bossier Parish, Hunt Guillot & Associates partnered with Aethon to overcome environmental, permitting and constructability challenges to identify optimum pipeline routes. Utilizing the GIS-based system, this effort was completed within three weeks, a fraction of the time normally required with other techniques.



Partnering with private developer Quint M. Partnership, C.H. Fenstermaker utilized various unique and innovative applications to complete hydrologic and hydraulic models including analysis, design and FEMA letter of Map Revision for channel realignment and improvements to carry a 100-year flood event along Coulee Ile des Cannes Lateral L2A in Lafayette Parish. The project within Lafayette Parish became known as the Big Dig as it moved approximately 400,000 cubic yards of material.

#### HONOR AWARD WINNERS



Working with its client, the City of Kenner, Digital Engineering designed and oversaw construction of the New Orleans Airport Connector Road project including the relocation of Fire Station 38 on Loyola Drive to allow additional lanes north of Veterans Boulevard. Digital completed the project six months in advance of the airport opening overcoming drastic scope changes, minimal disruption to traffic and businesses and ensuring the health and safety of the local community.



C.H. Fenstermaker partnered with the City of Natchitoches to design a recreational park with a unique appearance and sense of place within the historic setting and rolling hills of Natchitoches, Louisiana. Fenstermaker utilized an innovative modeling process to situate the park's main feature: Championship Field. Resting almost 20" lower than the adjacent fields, this topographic depression allowed for the revelation of amphitheater style seating along the first and third base lines, a feature unique to this park in the state of Louisiana.



#### **ACEC Of Louisiana**

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