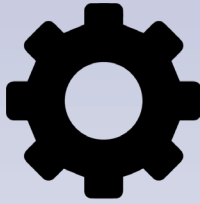


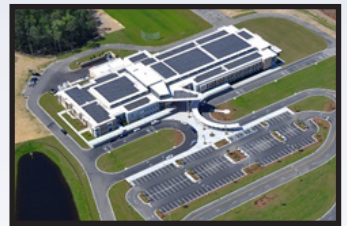
2021 Engineering Excellence Awards



2018
Thomas & Hutton
Engineering Co.



2020
HDR



2019
Thomas & Hutton
Engineering Co.



AMERICAN COUNCIL OF ENGINEERING COMPANIES
of South Carolina

Engineering Excellence Awards

June 16, 2021

6:30 PM

USC Alumni Center

Engineering Excellence is an annual competition sponsored by the American Council of Engineering Companies (ACEC) and its member organizations. It recognizes engineering achievements which demonstrate the highest degree of merit and ingenuity.

The ACEC-SC Palmetto Award (top overall project) and the five other entries judged to be the best overall are eligible to enter the national competition. National winners are announced at a gala event in Washington, D.C. later this year.

The ACEC-SC competition is open to all firms engaged in the practice of consulting engineering. Projects must have been designed in the state of South Carolina with construction substantially completed between Nov. 1, 2018 and Oct. 31, 2020. Projects may be constructed anywhere in the world as long as they were designed in South Carolina.

A distinguished panel of judges was selected. Each judge separately reviewed the projects. Criteria for judging included: original or innovative application of new or existing techniques; future value to the engineering profession and perception by the public; social, economic and sustainable design considerations; complexity; and exceeding owner/client needs. We applaud and congratulate all the firms that entered the 2021 Engineering Excellence Awards Competition.



AMERICAN COUNCIL OF ENGINEERING COMPANIES
of South Carolina



Palmetto Award

ACEC NATIONAL FINALIST • ACEC-SC ENGINEERING EXCELLENCE AWARD

Civil Engineering Consulting Services, Inc.

"I-85/I-385 Design-Build Interchange"

South Carolina Department of Transportation
Transportation

The design of the I-85/I-385 Interchange Improvement project (the most complex 3-level interchange of its kind) was successfully completed using the design-build method of delivery. South Carolina's traveling public began driving through the full access interchange four years sooner than if the traditional design bid-build method was used. More importantly, the area's citizens will benefit from improved mobility and the potential economic boost to the local and state economy now that the interchange upgrade is complete; thus, improving quality of life and accruing the benefits of a safer roadway for years to come.



ACEC National Finalists



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Additional Award: ACEC-SC Engineering Excellence Award

2021 Engineering Excellence Awards Gala



Civil Engineering Consulting Services, Inc.
"Carolina Bays Parkway, Phase III"

South Carolina Department of Transportation
Transportation

The design of the Carolina Bays Parkway extension from SC 544 to SC 707 was successfully completed at a lower cost, thanks to creative, innovative thinking. The residents and visitors to the Grand Strand area are enjoying the traffic congestion relief provided by the long-awaited completion of the CBP. More importantly, the state's citizens will benefit from an improved quality of life and accrue the benefits of a safer roadway by making a vision from years ago a reality today, while minimizing impact to the environment.

Additional Award: ACEC-SC State Finalist

2021 Engineering Excellence Awards Gala



HDR Engineering, Inc. of the Carolinas
"US 701 Bridge Over Great Pee Dee River"

South Carolina Department of Transportation
Structural Systems

The US 701 Bridge Replacements over the Great Pee Dee River provided new roadway and bridge infrastructure through a corridor which was a top priority for SCDOT. The new bridges and roadway will not only benefit SCDOT through reduced maintenance and enhanced safety but also will benefit the surrounding community and stakeholders through improved access and enhancements to important natural resources within the corridor. The HDR project team partnered with both its contractor team and SCDOT to overcome numerous obstacles ranging from design challenges created by complex geotechnical and hydraulic conditions at the site to mitigation of project delays brought about by unprecedented impacts of three major named storms over three years. The effects of these storm events did cause an overall project delay, but the mitigation strategies employed effectively minimized the delays. The project was completed according to the adjusted schedule based on these delays.

Additional Award: ACEC-SC Engineering Excellence Award
2021 Engineering Excellence Awards Gala



Infrastructure Consulting & Engineering, PLLC
“US 15 Over Indian Field Swamp Bridge Replacement”

South Carolina Department of Transportation
Structural Systems

The US 15 over Indian Field Swamp Bridge was load restricted and structurally deficient. SCDOT wanted to minimize environmental impacts by reconstructing the bridge and roadway in its existing location which resulted in a road closure and a need for a rapid design and construction processes. To appease the rapid construction process, ICE incorporated multiple enhancements in the bridge structure design such as 20" square prestressed concrete piles at all bents, a cast-in-place slab structure and a U-shaped pile containment system to meet seismic performance standards. These specific design elements not only saved time but also improved safety, increased environmental benefits and reduced maintenance and future repair costs. From procurement to request for comments and plan submittal, the ICE team was consistent and innovative with its design process which led to the project being completed within budget and ahead of schedule, allowing the route to be open three weeks sooner than anticipated.

Additional Award: ACEC-SC Engineering Excellence Award

2021 Engineering Excellence Awards Gala



Michael Baker International "Bear Island Road"

The Town of Summerville, SC
Transportation

The Bear Island Road extension project created a critical connection for the Town of Summerville to alleviate increasing traffic on North Main Street. Now, connecting North Main Street northwest up to North Maple Street, the road provides residents of the Weatherstone neighborhood and surrounding communities alternative access to Interstate 26 and also aids with traffic congestion in the shopping area at Azalea Square. In addition to roadway and drainage improvements, the project included pedestrian and bicycle facilities, landscaping and lighting for an aesthetically pleasing project for the surrounding community. These improvements not only provided connection to the existing roadway facility but also to the existing pedestrian and bicycle facilities on either end of the project. A rectangular rapid flashing beacon was also installed for additional safety at the intersection of Bear Island Road and Holiday Drive.

Additional Award: ACEC-SC Engineering Excellence Award

2021 Engineering Excellence Awards Gala



POND

“Samsung Electronics, Complex 3 Expansion”

Samsung Electronics

Industrial and Manufacturing Processes and Facilities

This unprecedented endeavor propelled Pond forward as a design and construction firm. Working on this major project with such high stakes has raised Pond’s prominence and reputation, truly showcasing what Pond could do. The participants of this project worked tirelessly toward a common goal and exemplified what it means to function as a highly effective team. When the project seemed impossible at some points, Pond accomplished its goal without sacrificing safety or quality. In addition to radically increasing Samsung’s production capacity, the construction of this facility has supported its ability to be the second largest employer in the community. Samsung has delivered on its promise to create over 800 jobs in Newberry County and the new warehouse has allowed it to triple its footprint, expanding its impact across the region. Pond is proud to support initiatives that push the envelope, improve processes, and improve the local landscape.

Additional Award: ACEC-SC Engineering Excellence Award

2021 Engineering Excellence Awards Gala

ACEC-SC Engineering Excellence Awards



American Engineering Consultants, Inc.

"Cromer Road 31 Million Gallons per Day Regional Pump Station"

The Town of Lexington, SC

Water & Storm Water

The goal of providing centralized wastewater service to Lexington County, SC, was sought for decades, driven by massive population growth and the environmental impact of discharging into the Lower Saluda River - a designated State Scenic River. A collaborative effort between utility owners resulted in a solution by transporting wastewater to the Cayce Regional Wastewater Facility. Massive infrastructure upgrades, including the Cromer Road Pump Station, were implemented over the course of many years to complete the objective. This intermediate pump station, which is part of a complex and far reaching force main system, was designed so that no further improvements are necessary in order to increase capacity to its ultimate 31 million gallons per day peak once a future parallel force main is completed. AEC designed the Cromer Road Pump Station to operate within this complex system and meet all current and future flow and pressure limitations while maximizing the town's investment.

2021 Engineering Excellence Awards Gala



Civil Engineering Consulting Services, Inc.
"How Utilities Impacted Wilton Dam Repair"

South Carolina Department of Transportation
Surveying/Mapping Technology

Four years after catastrophic flooding (which left neighborhoods under 20 inches of water and claimed the lives of 19 people) and working during the COVID pandemic, a road damaged by the flooding was repaired. However, at the end of construction the roadway/dam repair project was in jeopardy of being held up by a single utility. By working with the Contractors, City of West Columbia and SCDOT, the CECS team was able to provide a solution to the guardrail post installation adjacent to an existing asbestos cement water line – excavating test holes to avoid driving the guardrail posts – thus avoiding a costly and timely utility relocation. For a roadway that had been closed since 2015, getting the project done quickly was a must. By avoiding the relocation of the water line, the project saved over \$500,000. A savings of more than the actual cost of the roadway/dam repair.



McCormick Taylor, Inc.
“City of Aiken Parkways Revitalization”

The City of Aiken, SC
Small Projects

Additional Award: Small Firm Award

The City of Aiken wanted to create a network of pathways in and around its historic downtown, where the paths through the parkways provide residents with a range of beautiful, natural spaces to relax, meet, and play. McCormick Taylor, Inc. redesigned eight parkway bioretentions following recommendations from a previous study McCormick Taylor, Inc.’s firm completed for the City of Aiken. McCormick Taylor, Inc. identified areas where the best management practices may be reduced in size or retrofitted to meet the needs of the city as well as the vision Mayor Osbon had in creating spaces within the parkways for recreation and entertainment opportunities. To facilitate this renaissance, McCormick Taylor, Inc. re-envisioned the existing bioretentions and designed walking paths to extend throughout these parkways to allow for pedestrian interconnectivity. The completed project created a destination that entices visitors and residents to spend more time downtown and make active use of the parkways.



Michael Baker International
“Bettis Academy Road Interchange Improvements”

South Carolina Department of Transportation
Special Projects

The Bettis Academy Road improvements provided structural, operational, and safety improvements to a corridor that was in need of repair. Enhancements to the interchange configuration and implementation of turn lanes and signals provide improved traffic operations through this corridor. Though the bridge rehabilitation efforts made maintenance of traffic a concern, the Michael Baker team leveraged innovative construction techniques to allow for continued traffic use with minimal impacts. Long term detours were avoided by using a three-stage traffic control plan across the bridge over I-20 during construction. Hydro-demolition of the entire bridge deck with a latex modified concrete overlay provided a safe and cost-effective solution for the necessary bridge repairs while maintaining traffic on Bettis Academy Road and I-20. The project met the expectations of both the client and the public.

ACEC-SC State Finalists



HDR Engineering, Inc. of the Carolinas **"US 278 Improvements at Shelter Cove"**

The Town of Hilton Head, SC

Small Projects

As the Town's chosen consultant, HDR was responsible for the planning, engineering and permitting services for the US 278 Improvements at Shelter Cove. To meet the project goals, HDR developed an accelerated schedule and managed the project in two phases. Additionally, HDR developed an alternative that took a proactive approach to minimizing cost, utility relocations, environmental impacts, and impacts to the traveling public while maintaining the iconic tree canopies. The HDR team and the town worked closely with local residential communities, businesses, utilities and permitting agencies, which allowed for the avoidance of potential conflicts. Despite its various complexities, the project was ultimately completed on time and ahead of schedule. The HDR team delivered all of the town's goals, which led to the successful construction of the project.

2021 Engineering Excellence Awards Gala



Holt Consulting Company, LLC
"3J1 New Runway 18-36 Program"

Jasper County, SC
Transportation

The Ridgeland-Claude Dean Airport in Jasper County is the largest SC-IV class airport in South Carolina. Faced with an aging facility and restrictions on growth potential, the airport turned to Holt Consulting to assist in developing the right projects for the airport and region, promoting innovation in project execution to get the projects in service quickly, and seeking the most advantageous financing options for the county. The result of this effort was the construction of a new runway, taxiways and terminal area that not only enhanced growth and safety of facility operations but also is spurring on an economic surge in the region due to improved aircraft access for businesses. Excitement in the area for aviation resulting from the project led to the development of the Aerospace and Aviation Laboratory at Ridgeland-Hardeeville High School, located adjacent to the airport, providing students the opportunity to kick-start careers in aviation.



Infrastructure Consulting & Engineering, PLLC
"Bear Island Road Construction"

The Town of Summerville, SC
Special Projects

As the population continues to grow, safe and efficient roadway infrastructure is going to become even more essential to current and future residents of the Town of Summerville. Bear Island Road provides direct connectivity from the rapidly growing Nexton Parkway area to the heart of Summerville. The project included construction of approximately one mile of new roadway on new alignment, consisting of two 12-foot-wide lanes separated by a 15-foot landscaped median with eight-foot multiuse paths along each side. The project also included improvements to existing roadways and intersections and construction of new intersections, turn lanes, closed drainage, curb and gutter, landscaping, and pedestrian facilities. Completion of the Bear Island Road Project resulted in improved connectivity from the adjacent communities to I-26 and downtown Summerville, reduced traffic on Holiday Drive and (former) Sheep Island Road, and safety improvements for vehicles and pedestrians.

2021 Engineering Excellence Awards Gala



Parrish & Partners, LLC
"Bellefield Road Bridge Replacement"
South Carolina Department of Transportation
Small Projects

Seeking to minimize community impacts and end the burdensome detour that had been in place since 2015, SCDOT accelerated the project schedule for this bridge replacement in Fairfield County. Parrish & Partners responded by producing sealed bridge and roadway plans for this turn-key project just three and a half months after Notice to Proceed. By partnering closely with SCDOT, Parrish & Partners successfully delivered innovative, cost-effective, and environmentally sound design plans for the fast-paced project. Parrish & Partners's highly detailed, clear, and concise plans aided in the expedited construction of the project and the new 123-foot single span bridge opened to traffic eight months after being let for construction.



SynTerra Corporation
"LaFargeHolcim Home Branch Diversion"

Holcim
Special Projects

LaFargeHolcim, parent of Holcim (US) Inc., is the largest building solution provider in the world and the leading cement producer in the United States. Holcim retained SynTerra Corporation to address aspects of production expansion, particularly the relocation of a diversion canal, at its Holly Hill location. Prior to Holcim's ownership of the plant, Home Branch was rerouted to a diversion canal. Relocation to the new channel led to environmental and safety benefits. A woodland buffer was added, natural habitat was enhanced, and the likelihood of flooding in the plant area was greatly reduced. SynTerra worked with Holcim for more than a decade on design, permitting, and construction efforts.



**TranSystems, Crowder Constructors Inc.,
Bunnell-Lammons Engineering
“Xanthene Norris Pedestrian Bridge”**

Greenville County, SC
Small Projects

The Xanthene Norris Pedestrian Bridge in Greenville, SC, reconnects the citizens of the City View/Southernside neighborhoods to downtown Greenville, while also providing a safe crossing over the Norfolk Southern Railway. The new bridge replaces the former Hampton Avenue Bridge, which was demolished in 2012. Without this critical connection, residents of the City View/Southernside neighborhoods were forced to cross the 11 rail tracks or walk an additional 1.5 miles to the nearest access point. To safely reconnect the citizens to downtown Greenville, Greenville County selected the design-build team comprised of TranSystems, Crowder Constructors, Inc. and Bunnell-Lammons Engineering to design, construct and inspect a pedestrian bridge over the Norfolk Southern Railway. The new bridge is an approximately 12' wide steel pre-fabricated truss bridge spanning nearly 165' and successfully fills the gap in access for City View/Southernside residents and visitors alike to neighboring communities, schools, local businesses and public transportation.

2021 Engineering Excellence Awards Gala

Judges

A special thank you is extended to the competition judges who volunteered valuable time to carefully review each project.

William J. Davis, Ph.D., P.E.
Department Head & D. Graham Copeland Professor of Civil
Engineering
Civil & Environmental Engineering, Construction Engineering
The Citadel

Robert "Bob" King, PE
SCDHEC Retired

Lt. Marguerite McClam, PE, F.NSPE
President, Palmetto Consulting Engineering Group, Inc.

American Council of Engineering Companies of South Carolina (ACEC-SC) is a member organization of the American Council of Engineering Companies. For information on ACEC-SC or the Engineering Excellence Awards competition, please contact us at 826 Assembly Street, Columbia, SC 29201
(803) 771-4271 | www.acecsc.org