**For immediate release:**

ACEC of Maine

Engineering Excellence Awards Announced

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AUGUSTA - As a prelude to the national ACEC competition for the most innovative engineering projects in the country, ACEC of Maine announces their 2019-20 Engineering Excellence Awards. At this year's awards event, hosted at the Clarion Hotel in Portland on October 25, 2019, six firms received recognition. The American Council of Engineering Companies congratulates and thanks these engineering firms for their continuing efforts to improve, innovate and design our built environment.

**Grand Conceptor Award: *VHB for the Route 1 - Main Street Bridge Project***

VHB of South Portland, Maine was honored with ACEC of Maine’s top honor for its work on the Route 1 - Main Street Bridge project that carries US Route 1 traffic over Main Street in Yarmouth, ME. The award means the project ranked as the top project in the state based on its engineering quality, innovation, value, and client satisfaction.

"The new Route 1 - Main Street Bridge exemplifies how a collaborative process with a capable and creative engineering team such as VHB, a State transportation agency willing to listen to community concerns and aspirations and take them seriously, as did MaineDOT, and an engaged community can work together to create an exemplary context-sensitive project of which all parties can be proud. Yarmouth is the beneficiary of this new bridge that will serve us well into the next century" said Alexander Jaegerman, Director of Planning & Development for the Town of Yarmouth.

Built in 1948, Yarmouth's Main Street Bridge was a prominent, beautiful, and signature structure in the heart of the Town of Yarmouth's historic village, but after several decades of service, the 64-year-old bridge began showing its age. The structure was in poor condition and required replacement. MaineDOT engaged VHB to design a cost-effective, durable, and low maintenance replacement bridge that also addressed the Town of Yarmouth's vision for the project to the extent possible. The Town, through its Bridge Advisory Committee, identified two major goals for the project: creating a bridge that reinforced the traditional look and feel of the historic village; and connecting the existing vehicular, bicycle, and pedestrian linkages to reflect the Complete Street policy of the Town, while also improving the continuity of the Beth Condon Memorial Pathway across Main Street.

Working closely with MaineDOT and the Town's Bridge Advisory Committee, VHB was able to provide a design that met both MaineDOT and the Town's goals for the project. The new 3-span concrete arch bridge is a low-maintenance, durable structure that echoes the historic appearance of the original bridge. A new sidewalk and multi-use path improve pedestrian and bicycle safety and connectivity, and landscaping and lighting improvements enhance usability and appearance in this important area in the center of Yarmouth.

**Honor Award for Engineering for Civic Value: *Kleinfelder for the Brewer Riverwalk, Phase II***

On June 8, 2019, Kleinfelder joined the City of Brewer and Maine Department of Transportation for the Brewer Riverwalk Trail, Phase II ribbon cutting ceremony to celebrate the completion of this $1.9 million trail extension project.

As Engineer of Record, Kleinfelder finalized the conceptual design, provided preliminary and final design services, construction plans and bid documents, and engineering support during construction for the project. Kleinfelder also oversaw the geotechnical engineering, the electrical design for the trail lighting, security system, and public Wi-Fi, and managed the right-of-way mapping activities. Kleinfelder further supported MaineDOT by providing full construction oversite with a Construction Resident and Chief Inspector.

Kleinfelder's creative design approach maintained the trail along the riverfront by creating a tunnel through the curtain wall of the Joshua Chamberlain Bridge abutment without sacrificing its integrity. The approach solved intersection concerns, reduced property owner impacts, and provided a safer alternative for pedestrians and bicyclists using the trail. The design provides connectivity to Brewer's downtown and development properties allowing for additional growth and includes the revitalization of downtown Center Street. Through the redesign of sidewalks, parking, lighting, and security, Kleinfelder created additional green space and a safe and inviting downtown that the community can enjoy for decades to come.

During design and construction, Kleinfelder's team worked closely with MaineDOT, the City, and property owners and businesses as they developed trail alternatives. They coordinated with MaineDOT and multiple utilities for street side pole relocations and electrical connections along the riverfront for lighting, security, and public Wi-Fi. The design greatly enhanced the user experience for the community of just over nine thousand people as the trail is now much more attractive to families, senior citizens, and those with mobility issues.

Since the completion of Phase II of the Brewer Riverwalk, it has been formally designated as part of the East Coast Greenway which runs from Key West, Florida to Calais, Maine. East Coast Greenway prefers off-road segments and was very enthusiastic about including the Riverwalk Trail as part of its system.

"I was excited to once again work with MaineDOT and the City of Brewer on this project, afterhaving led the design of the previous section of the trail and the shoreline stabilization projects,"said Peggy Duval, Kleinfelder's project manager. "Phase II of the Riverwalk Trail provides aseamless connection to the existing trail and connects its users to the City's downtown at CenterStreet. In addition to providing a safe and accessible transportation mode for bicyclists andpedestrians, the trail has become a regional destination for families, seniors, and healthenthusiasts. Kleinfelder is pleased to have met those project goals resulting in success for bothMaineDOT and the City of Brewer."

*Founded in 1961, Kleinfelder is a leading engineering, construction management, design and environmental professional services firm. Kleinfelder operates from over 60 office locations in the Unites States, Canada, and Australia. The company is headquartered in San Diego, California.*

**Honor Award for Cost-effective Solutions in Engineering Design: *Wright-Pierce for the ACB’s of Flood Mitigation at Corcoran’s Pond Dam***

Corcoran's Pond is a popular tourist destination in the "ski town" of Waterville Valley and a revenue-generating venue for weddings and community events. The Corcoran's Pond Dam is an earthen embankment dam which has been classified as "high hazard" by the New Hampshire Department of Environmental Services (NHDES) due to the risk of flooding during storm events. Because of this classification, modifications to the dam were required in order for it to be compliant with current flooding standards.

In order to sustain the site as a Town amenity and also maintain a safe, working dam, the Town worked with Wright-Pierce, an award-winning environmental engineering firm, to assess options that would fortify the dam while having the least visual impact on the town-center site.

After a thorough engineering analysis and extensive hydraulic modeling to determine the scouring effect of rising water on the river embankments, armoring of the existing dam embankments was selected as the best option to bring the dam into compliance with NHDES requirements. It was determined that the armoring would need to extend to a height of at least one foot above the highest water surface elevation anticipated during a flood condition. The selected method of armoring was Articulating Concrete Block mats (ACBs). Puzzle-like pieces of concrete blocks are held together with metal cables to form mats, which are fit together to serve as an armor, protecting the river embankment from erosion. Due to the irregular contours of the site, a complex geometric customization of the mats was engineered to accommodate the 253-foot long by 14-foot tall earthen embankment. Once the mats were in place, they were covered with 9 inches of topsoil making them invisible, sustaining the natural beauty of the riverbed.

The project was bid in the summer of 2018 for fall construction with a completion in July 2019. Ryan Wingard, Vice President at Wright-Pierce and Principal in charge of the project, commented "The project goals were accomplished. The ACB armor has strengthened the dam, bringing it well into compliance with DES dam hazard regulatory requirements while protecting the natural beauty of the site. Through a strong collaborative effort, the engineering team worked closely with the Town and the Contractor to minimize disruption during construction allowing the Town to continue using the site as a popular and important revenue-generating venue for community activities."

**Honor Award for Context-sensitive Design: *HNTB for the Bar Harbor Route 3 Highway Rehab***

Route 3 in the Town of Bar Harbor, Maine, is the only road onto Mount Desert Island and provides primary access to downtown. It is a two-lane state roadway that carries an average of 10,000 vehicles per day. Maine Department of Transportation (MaineDOT) required a strategic design team to provide improvements to a 4.7 mile corridor on Route 3 and one that could take a holistic perspective to balancing the needs of residents, businesses and the millions of visitors to Mount Desert Island each year while creating a safe and more efficient transportation route. MaineDOT selected HNTB Corporation (HNTB) as the prime engineering consultant to lead the design team.

Bar Harbor has a year-round population of 5,000 people, growing to more than 18,000 during the summer months. Acadia National Park (ANP), also located on Mount Desert Island, is the ninth most visited National Park in the United States attracting millions of visitors each year.

The design effort incorporated the vision established by the Route 3 Gateway Project Advisory Committee (PAC) to provide a "safe, efficient and aesthetically pleasing transportation corridor that encourages multiple uses and maintains or enhances the historic standards of Bar Harbor and Acadia National Park."

Mobility along Route 3 and access to residents and businesses from Ireson Hill to downtown, including the Hulls Cove entrance to ANP, had to be carefully balanced with contractor schedule and cost demands during construction. The PAC dedicated a considerable amount of time and energy, with nine committee meetings and four public meetings, all facilitated to understand the opportunities and constraints of the project area and guide the Context-Sensitive Solution (CSS) process.

The CSS approach demanded a design appropriate to Route 3 in Bar Harbor. The intent was to establish a strong, unified corridor while responding to the individual characteristics of the four different sections: Ireson Hill (Pirate's Cove to Barton's Motel), Barton's Motel into Hulls Cove, Acadia National Park Entrance through Bluffs and Duck Brook into town. Many areas needed special attention to develop the proper 'fit.' HNTB implemented these elements into a rehabilitated Route 3 "resulting in a project that fits in context with its surroundings and will serve its users for years to come."

Through thoughtful design, HNTB delivered an engineered solution totaling nearly $25 million that not only addresses deficient roadway features, but that provides the Bar Harbor area, the traveling public, and MaineDOT a comprehensive Route 3 corridor that improved safety for all modes and will foster sustainable economic development.

HNTB is an infrastructure solutions firm with more than 4,100 employees serving public and private owners and contractors, delivering a wide range of services including planning, design, program, and construction management.

**Honor Award for Transportation Master Planning: *HNTB for the Portland Area Mainline Needs Assessment Study***

The Maine Turnpike (Turnpike) through Greater Portland is an essential component of the regional and statewide transportation system and provides safe and efficient mobility for regional through-traffic, as well as quick and convenient access to local businesses. The Maine Turnpike Authority (MTA) is responsible for maintaining and improving the Turnpike to meet revenue projections pledged for investors, while providing a safe and reliable travel experience to the public. To assist the MTA in future planning projects that will provide long-term safety and capacity, HNTB performed an existing and future needs assessment of this corridor from Exit 44 in Scarborough through Exit 53 in Falmouth. This study included the development and assessment of 19 alternatives to determine their effectiveness towards the study goal.

As part of this study, HNTB looked toward the future of transportation with regards to the fields of connected and automated technologies, as well as electric vehicles. Nationally recognized subject matter experts including local HNTB toll systems expert, Todd Pendleton, PE; HNTB's intelligent transportation systems (ITS) Practice Leader, Jim Barbaresso; and economist Charlie Colgan, PhD, were engaged to determine the effects of these developing technologies on future capacity needs, potential safety improvements, and increased air quality.

Ultimately, recommendations developed provided guidance towards a phased approach to increase capacity on the Turnpike while promoting travel demand management and transportation system management improvements that would reduce trips on the road, helping to increase the life-span of these improvements.

Due to the regional significance of this corridor, diverse public participation was a critical element of this assessment. A Public Advisory Committee (PAC) was put together containing members from regional municipalities; municipal planning organizations and transit leaders; Maine Department of Transportation; Bicycle Coalition of Maine; emergency services; and government and environmental agencies.

"HNTB did an excellent job guiding both the PAC and Turnpike staff throughout the study process," said Erin Courtney, MTA Public Outreach and Marketing Manager. "When PAC members asked for additional alternatives to be evaluated, HNTB staff was responsive and delivered results given limited turnaround time. Without their thorough examination of the alternatives and ability to present technical information in a clear, straight-forward manner, the outcome may have been different."

In July 2018, the MTA Board voted to approve the recommendations provided in the PAM Study, and HNTB immediately began preliminary design of the widening. Construction is anticipated to be complete for the first phase in 2022, and will include 11 construction contracts for an estimated cost of $146 million. The PAM Study successfully identified the appropriate alternatives to address growing safety and congestion issues, while identifying opportunities to enhance local and regional transit through partnerships established during the study process.

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**Honor Award for Integrating Historical Preservation in Engineering Design: *CHA for the Whittier Field Athletic Complex Renovation***

Bowdoin College’s Whittier Field in Brunswick, Maine is one of the most storied collegiate football fields in America. Opened in 1896, with the later addition of Hubbard Grandstand and Magee Samuelson Track, Whittier Field Athletic Complex was renovated in a two-phase project that revitalized this revered piece of college sports history with modern amenities meeting the current and future athletic and recreational needs of the College while preserving its much-loved history.

The initial phase replaced the grass field with artificial turf and added lights, seating, and a new two-level press box, along with expanding the six-lane track to the eight lanes necessary to host NCAA championship track meets. The exterior of Hubbard Grandstand, which was added to the National Register of Historic Places in 2017, was also rehabilitated. Bleachers that had been built around Hubbard Grandstand were removed to showcase its historical architecture. Additional aluminum grandstands were constructed on the opposite side of the field to preserve the spectator seating capacity.

The second phase relocated a public roadway, constructed a one-story team/spectator support facility, and completed the east end of the additional spectator seating constructed in Phase 1. The support facility houses locker, training, and equipment rooms and modern spectator restrooms.

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