Tetra Tech INCA’s Lake Borgne Surge Barrier Earns Top Honor for National Engineering Excellence

WASHINGTON, D.C.—A $1.1-billion response to the death and destruction of Hurricane Katrina has been named the year’s most outstanding engineering achievement in the 46th Annual Engineering Excellence Awards—a juried national competition sponsored by the American Council of Engineering Companies (ACEC).

More than 600 attended the black-tie Engineering Excellence Awards Gala, held April 17 in Washington, D.C., which recognized 147 preeminent engineering achievements from throughout the world.

In August 2005, one of the largest recorded storm surges in U.S. history—over 25 feet—entered the confluence of the Mississippi River Gulf Outlet and Gulf Intracoastal Waterway during Hurricane Katrina, overtopping a 4,000-foot-long levee section and causing widespread flooding, destruction and death in the New Orleans region.

The new Lake Borgne Surge Barrier is a concrete and steel defense against any future Katrina-like assault. Tetra Tech INCA of Bellevue, Wash., led the design team that produced a structure that is 26-feet tall and nearly two miles long, and the largest surge barrier of its kind in the world.

Built to withstand a once in a 100-year storm surge event, the new surge barrier effectively moves the first line of storm-surge defense more than 12 miles away from downtown New Orleans, and is now a model for floodgate and floodwall design worldwide.

Other top Engineering Excellence Award winners were:

Grand Awards

- Aqua at Lakeshore East, Chicago, Ill., by Magnuson Klemencic Associates—majestically towering 87 stories from a once neglected industrial brownfield site, the 2.3-million square-foot mixed-use complex represents pioneering structural design for vertical construction.
• **Marina Bay Sands Integrated Resort**, Singapore, by Arup—the new tourist destination in the heart of Marina Bay features three 55-story, asymmetrically curved luxury hotels, each topped and connected by a 2.5-acre landscaped rooftop, which is the world’s largest cantilevered public space.

• **U.S. Highway 82 Mississippi River Bridge**, Washington County, Miss., by HNTB Corporation—a new 2,500-foot-long, three-span cable-stayed bridge that becomes the third longest of its type in the U.S., and a dazzling successor to the 1940s-era bridge it replaced.

• **Co-Digestion/Combined Heat and Power Improvements**, Johnstown, N.Y., by Malcolm Pirnie, The Water Division of Arcadis—the first U.S. wastewater treatment plant that operates entirely on power recovered from the treatment processes—making it a “net zero” energy facility.

• **Elwha River Restoration**, City of Port Angeles and Clallam County, Wash., by URS Corporation—the second largest National Park Service river restoration project in U.S. history prevents adverse environmental impact from 18 million cubic yards of trapped sediment during removal of two obsolete 1900s-era hydroelectric dams.

• **Harbor Drive Pedestrian Bridge**, San Diego, Calif., by T.Y. Lin International—a graceful new 550-foot pedestrian bridge that is one of the longest self-anchored suspension bridges in the world, and a striking new gateway to downtown San Diego.

• **Yorkville Dam Safety Improvements/Bypass Channel**, Yorkville, Ill., by Teng & Associates—water recreational attractions were enhanced while eliminating life-threatening downstream turbulence that claimed 28 drowning victims in the last 35 years.

**Honor Awards**

• **Kansas Airspace Awareness Tool**, Topeka, Kan.—Burns & McDonnell
• **Propellants North Facility**, Kennedy Space Center, Fla.—Jones Edmunds & Associates
• **I-93 Fast 14 Project**, Medford, Mass.—Tetra Tech & Gill Engineering Associates
• **KFC Yum! Center, Louisville Arena**, Louisville, Ky.—Walter P Moore
• **Mobile LiDAR Mapping for Street Improvements**, Austin, Tex.—Surveying and Mapping
• **Hickory Ridge Landfill Solar Energy Cover**, Atlanta, Ga.—HDR Engineering
• **Lake Oswego Interceptor Sewer**, Lake Oswego, Ore.—Brown and Caldwell
• **East Fork Raw Water Supply Project**, Seagoville, Tex.—Alan Plummer Associates
• **West Closure Complex Pump Station**, New Orleans, La.—Bioengineering/ARCADIS
• **Sacramento International Airport's Big Build**, Sacramento, Calif.—AECOM and Corgan Associates
• **Stearns Road Corridor**, South Elgin and Bartlett, Ill.—Alfred Benesch & Company
• **SW Moody Avenue**, Portland, Ore.—Harper Houf Peterson Righellis
• **Submarine Drive-In Magnetic Silencing Facility**, Beckoning Point, Pearl Harbor, Hawaii—SSFM International/Moffatt & Nichol
• **Improvements at the Grand Canyon**—HDR Engineering
• **TECO Master Plan Implementation Project**, Houston, Tex.—Burns & McDonnell

*The American Council of Engineering Companies (ACEC) is the business association of America’s engineering industry, representing more than 5,000 independent engineering companies throughout the United States engaged in the development of America’s transportation, water and energy infrastructure, along with environmental, industrial and other public and private facilities. Founded in 1909 and headquartered in Washington, D.C., ACEC is a national federation of 51 state and regional organizations.*

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