JOB STORY

By Carol Shobrook

CATCHING WAVES IN BROOKLYN

New York
One of first thing you notice at the Brooklyn Bridge Park Marina is the spectacular backdrop, which includes lower Manhattan, the historic Brooklyn Bridge and the Statue of Liberty. The park opened to the public in 2010 with docks, ferry service, upland areas, and a private marina. However, boats in the marina were up against a particularly challenging site condition: Large wakes caused by vessel traffic rounding the Battery, the ‘Cape Horn’ of New York Harbor, as it is has come to be called by the crew at JT Cleary.
When the existing breakwater near the entrance to the marina proved insufficient to protect boats in the marina, the marina owners decided to calm the waters by installing a 10-foot deep, floating wave attenuator. This would be accomplished with three ballasted barges, running the full 655 linear feet of the current breakwater and secured with anchor piles. JT Cleary was selected to complete the project, which was done in two phases.

Since Brooklyn Bridge Park is a public recreational area, all work had to be performed from a crane barge to ensure the safety of pedestrians. Extreme care was taken not to induce vibrations in the Interborough Rapid Transit (IRT) tunnels running below the marina.

As an immediate and temporary measure, JT Cleary placed two of its 54ft × 250ft barges inshore of the existing breakwater, while the permanent sea barges were outfitted and towed to New York from Alabama. Even the temporary barges required meticulous placement, fendering, ballasting and monitoring by JT Cleary personnel, due to the rough wave action in the area. When the new attenuator barges arrived in 2019, JT Cleary installed 5,000 linear feet of anchor piles through the new barges.

Using its barge-based Liebherr LRI300 crane and a vibratory hammer, JT Cleary drove the 140ft long × 36in × 1in steel pipe pile, fabricated by JD Fields. An impact hammer was used for a final few piles. Ancillary work included construction of a gangway,
railing, fire standpipe and fencing at the docks, and removal and repositioning of concrete docks and existing floating attenuators.

JT Cleary's President, Jim Cleary, noted, “Precision and delicacy were needed near the IRT tunnels. Our crews closely monitored the placement of the piles, while crews inside monitored the tunnels for vibration tolerances.” The project creates a safer and calmer home for boats in one of New York’s most beautiful waterfront parks.

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