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Mass Bay Electrical completes Cape Cod Canal tower cable retrofit installation project

April 14, 2011 - Construction Design & Engineering

In a specialized operation, Mass Bay Electrical completed the retrofit installation of new optical and static ground wire cable in two Cape Cod Canal towers in late December 2010.

Mass Bay's project scope involved changing the existing static line to a new OPGW static line with a core of fiber optic cable. The project entailed transporting cable across the Canal via helicopter in the intricate and critical installation process. Nearly 2 miles of cable was installed in the process.

The cable and Canal towers are used for communication between NSTAR's control room and various NSTAR substations on the Cape and in Southeastern Mass. The new cable line also protects high voltage lines from lightning strikes. The Canal's north and south towers are located between the Sagamore and Bourne Bridges and the cable brings power to the Cape and Islands.

The project involved closing down two major highways - Rtes. 6 and 6A, the Mass. Coastal Railroad (Bourne to Hyannis), and the Cape Cod Canal during the critical operation, which was performed from 7AM to 5PM. Editor's note: When last performed, 30 years ago, the previous contractor dropped the cable into the Canal and caused a Coast Guard boat to catch fire, so safety was an extremely critical aspect to the project. Coast Guard, State police and local police were on site to assist in the oversight of the process and Local 104 had several additional safety inspectors on site to ensure the project was handled appropriately.

Bucket trucks with rigs on the ground were positioned underneath critical lines to catch lines in case of cable failure to protect the Canal and railway. All linemen wore special PPE safety harnesses. A helicopter was also utilized to allow for disengaging four (4) aviation obstruction safety balls from the existing cable line, enabling line inspection. The procedure was necessary to ensure the integrity of the existing line was such that it could be used to pull in the new cable. The aviation balls, used to protect pilots flying along the Canal, were reinstalled following the installation of the new cable.

Mass Bay vice president James Moulison, Jr., project manager Dan Sullivan, and project foreman/head lineman Jason Meashaw supervised a team of 20 IBEW Local 104 linemen in the 10-hour project.

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