

Tybee Island Jetty Light Replacement

United States Coast Guard



Project Type

Design
Inspection
Studies/Analysis
PCAS

Location

Tybee Island, Georgia

Estimated Construction Cost

\$500,000 USD

Date of Service

2009 - 2010

Project Description

The Tybee Island Jetty Light Replacement project commenced with inspections and studies. This phase included field work and wave studies. The field work comprised of a hazard survey around the area of the original timber pile towers. The survey identified obstructions located underwater in the areas surrounding the existing towers. A wave study was completed to determine the wave conditions at the site as well as the loading conditions for the structures.

The information collected via wave studies and in the field was utilized to determine the design of the new structures. The design included the demolition of the two existing structures and the installation of two steel monopile structures capable of supporting the aids to navigation required. The design incorporated specialized marine coatings, epoxy jacketing and fiberglass elements to improve the service life of the structure. The structures are 65 foot long steel pipe piles driven into the seabed. The piles each have a fender system and ladder mounted to the pile that provides access to a platform on top of the light. The platform supports the solar panels and the optic light utilized by the Coast Guard. The construction of the towers was undertaken in April of 2010 and completed in July of 2010. Construction administration tasks included submittal and RFI review as well as Pile Driving Analysis review.



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