

Project Overview



REPAIR OF DETERIORATED SUBMERGED TIMBER PILES

Name: Port O'Connor Timber Pile Repair
Type: Pile Repair
Location: Port O'Connor, TX
Completed: February 2012

PROBLEM

19 piles at a boating dock in Port O'Connor Texas were badly deteriorated near the splash zone. A few piles were so deteriorated that more than 75% of the volume near the splash zone was gone. The home/dock owner wished to repair the existing piles rather than replacing them with new ones. In addition to the piles being submerged in water, about 75% of the piles were under the building, making replacement nearly impossible. The multiple problems faced with the repair of the dock was a perfect fit for the use of the PileMedic™ system.

SOLUTION

PileMedic™ FRP Repair System was selected to strengthen and prevent deterioration of the submerged timber piles. 19 piles required strengthening and protection against future moisture.

Using 4ft wide QuakeWrap® PileMedic™, we would apply an underwater resin (QuakeBond™ 220UR) to the jacket. There was sufficient head room above the water line, that we could assemble two -4 ft jackets above the water line and then the entire 8-ft long assembly was lowered into water. Once the full jacket is in place we then proceeded to inject the jacket with an under water curing grout, completely encapsulating the pile. Once the resin and grout is cured, the pile will then be brought back to strength and protected from future deteriorating causing elements.

TECHNICAL HIGHLIGHTS

- Highly deteriorated submerged timber piles were repaired and strengthened using the PileMedic™ system.
- PileMedic™ PLG60.60 Biaxial Glass Laminate was used along with QuakeBond™ 220UR Underwater Resin.
- 19 Piles were cleaned and repaired in less than a week.

CREDITS

Consultant: QuakeWrap, Inc., Tucson, AZ
Contractor: FRP Construction, LLC, Tucson, AZ



"The Future in Pile Renovation"