



**Infrastructure Innovators Since 1994**

**QuakeWrap, Inc.**

6840 S. Tucson Blvd., Tucson, AZ 85756

(520) 791-7000, FAX (520) 791-0600

Toll Free (866) QuakeWrap (782-5397)

www.quakewrap.com

## PROJECT PROFILE

### Port of West St. Mary Steel Sheet Pile Bulkhead Improvements

**System:** SPiRe® (Sheet Pile Repair) FRP panel system by QuakeWrap, Inc.

**Owner:** Port of West St. Mary, St. Mary Parish, LA

**General Contractor:** FRP Construction LLC, Tucson, AZ

**Diving Subcontractor:** InDepth Diving, Corpus Christi, TX



#### Project Synopsis:

- Feet of bulkhead improvements – approximately 145 feet
- Profile – SPiRe® flat FRP panels manufactured at QuakeWrap facility, Tucson, AZ
- Panel Dimensions – 7 feet high by approximately 4 feet wide
- Installation – Above mudline install using stainless steel J-bolts, fiberglass FRP rebar, non-shrinking grout and custom plugs at the bottom of the panels
- Panels needed – 42 total

**SPiRe® sheet pile repair system was selected for this project** as part of an overall bulkhead improvement package that included FRP as a long-term protection solution to halt the corrosion of the existing steel sheet piles.

Included in this improvement project were the surface preparation of the original piles, removal of rotting timber that was originally installed as protective bumpers, and a new concrete cap beam that runs the length of the repaired bulkhead.

QuakeWrap engineering support, including sealed designs and the internal ability for customization per client requirements, was utilized in this project.

The SPiRe® system for this project included the following components:

- Design Package with sealed engineered calculations, drawings and specifications
- Customized panels and preinstalled spacer assembly
- Glass FRP rebar at each vertical cell
- Corner panels and closure panels
- QuakeBond epoxy for side seam overlap
- QuakeBond epoxy grout for annular space
- Concrete cap beam as a surface finish
- Driven timber piles around newly repaired bulkhead for extra protection.



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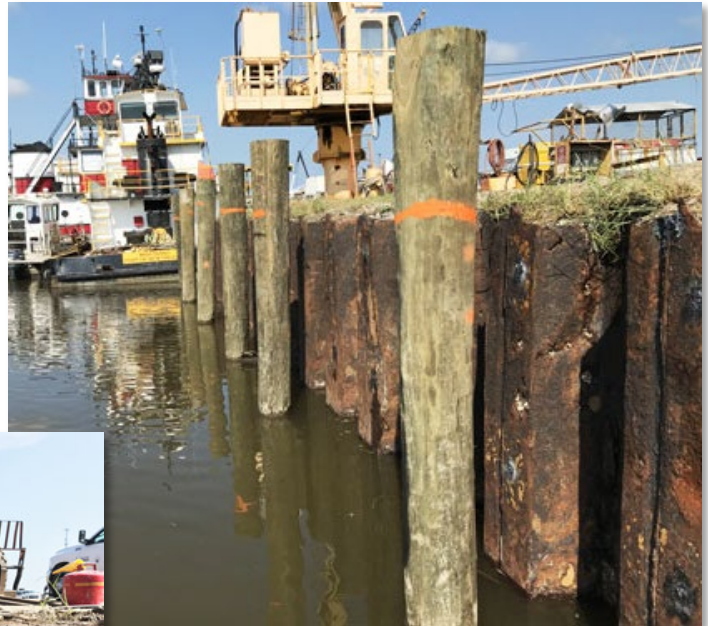
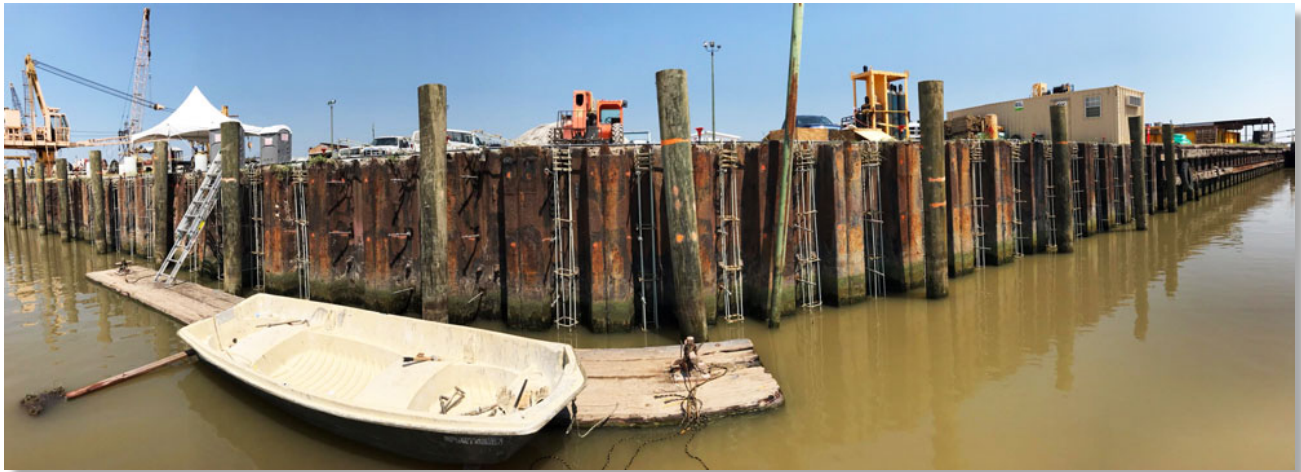
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## Project Photos: Before







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## Project Photos: After



*Installed SPiRe® FRP panels improve corroded steel sheet pile bulkhead.*

*At left, installed SPiRe® FRP panels with corner configuration.*





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### Project Photos: After (con't)



*At left, fiberglass rebar cages provide extra strength for non-shrink grout; above, temporary timber walers are put in place while non-shrink grout cures completely.*

*At right, a new concrete cap beam completes the bulkhead improvements for the Port of St. Mary.*

*Contact a QuakeWrap engineer today for more information on this comprehensive, corrosion-halting port rehabilitation.*

*More info on the SPiRe® Sheet Pile Repair system can be found here*

*[www.PileMedic.com/spire.html](http://www.PileMedic.com/spire.html)*



**QuakeWrap.com**  
**info@quakewrap.com**