



JOHN JAMES AUDUBON BRIDGE

New Roads, Louisiana

Owner: Louisiana DOTD

Designers: Parsons Transportation Group
Buckland and Taylor

Contractor Joint Venture:
Flatiron Construction Corp.
Granite Construction, Inc.
Parsons Transportation Group

Years of Project: 2006—2010

Total Project Cost: \$409 Million

Owner Reference:
Steve Meunier, P.E. (LADOTD—225-379-1345)

Client Reference:
Greg Shafer, P.E., S.E. (Parsons — 410-949-2031)

Project Highlights:

The John James Audubon Bridge project is a new Mississippi River crossing in south central Louisiana. The 1583-foot cable-stayed main span is supported by two reinforced concrete H-type pylons located in the Mississippi River. Each main pylon has 21 8-foot diameter base-grouted drilled shafts as its foundation system. The shafts are approximately 200 feet deep, subject to 70 feet of scour, and designed for 6000 tons nominal resistance each.

The shafts were constructed utilizing full depth temporary sectional casing that was inserted and removed with an oscillator. Permanent casing 8 feet in diameter was installed in the upper 90 feet of each shaft.

A total of ten O-cell load tests were performed during foundation construction. The base grouted base response typically contributed at least 3,000 tons of the nominal resistance.

Technical Publications:

Dapp, S.D. and Brown, D.A. (2010). "Evaluation of Base Grouted Drilled Shafts at the Audubon Bridge", GeoFlorida 2010, Advances in Analysis, Modeling and Design, Geotechnical Special Publication No. 199, ASCE, pp1553-1562

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