

SH276  
AT LAKE TAWAKONI  
(TWO MILE BRIDGE)  
HUNT COUNTY

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TxDOT Paris District CEI Contract

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# TAWAKONI

means

“river bend among red sand hills”

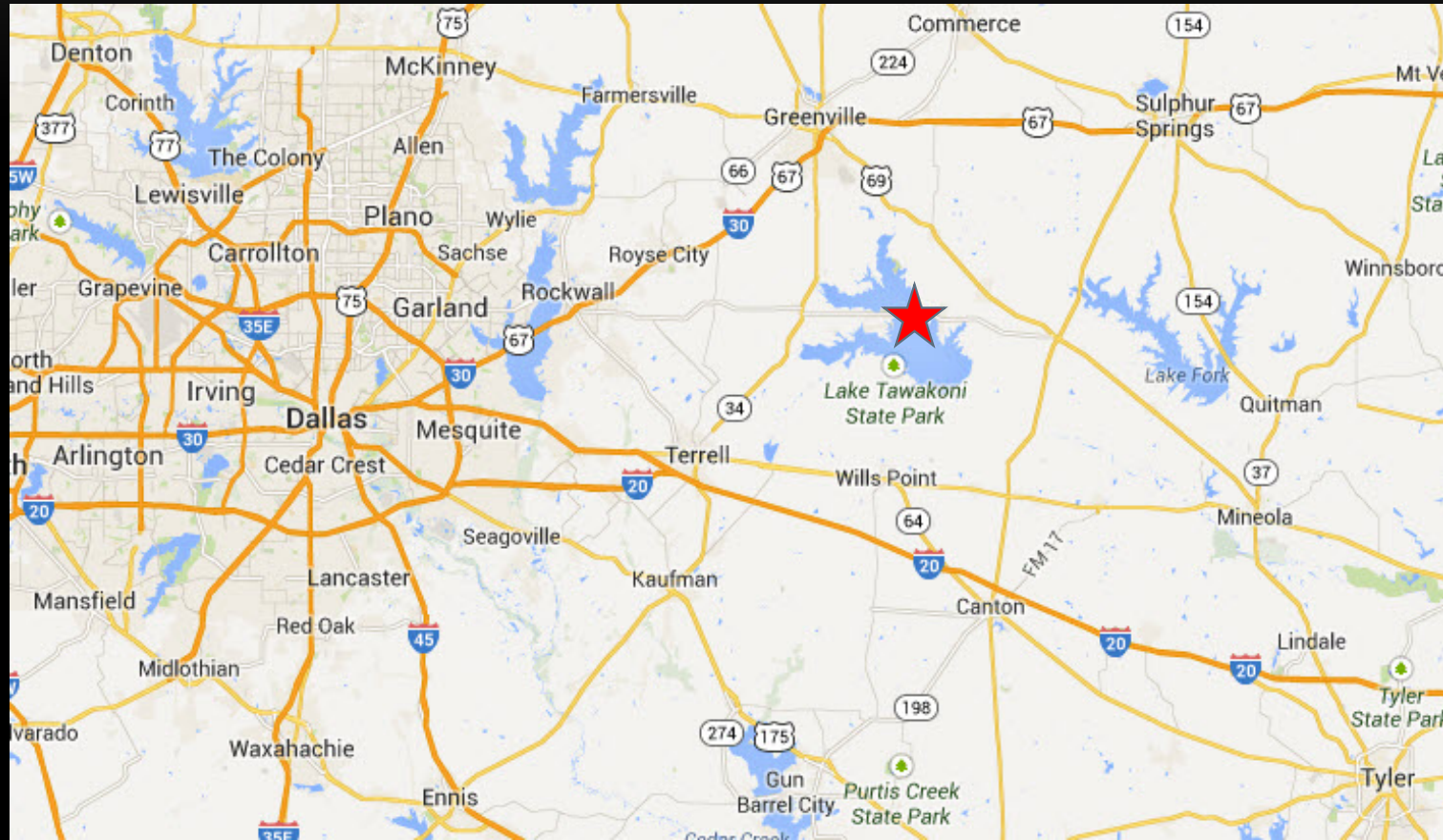


# PRESENTATION

- The Project
- The CEI Consultant
- The Selection
- The Team
- The Success



# THE PROJECT



# THE PROJECT

- History of Existing Bridge
  - 1.8 miles long (called Two-Mile Bridge)
  - Built: 1959
  - Nation's longest bridge serving FM road when constructed
  - Constructed by Cage Brothers, Inc.
  - \$1.5 million

# THE PROJECT

- History of Existing Bridge
  - Sufficiency Rating: 40.3
  - Structurally Deficient
  - Deck Condition: Good
  - Superstructure Condition: Fair
  - Substructure Condition: Poor

# THE PROJECT

- Proposed Bridge
  - Project was let in July 2012
  - Williams Brothers Construction Company, Inc.
  - Award Amount- \$47.8 million
  - Contract Days- 671
  - Work Begin Date- Sept. 25<sup>th</sup> 2012

# THE PROJECT

- Proposed Bridge
  - Four lanes (two in each direction)
  - Reconstruct the approaches (new alignment)
  - Optional Precast Concrete Caps
  - Permanent Casing
  - Demolish the existing bridge

# THE PROJECT

- Proposed Bridge
  - 440 Drilled Shafts
  - 85 Spans (Typical 120 feet long)
  - 101, 575 LF TX54 Girders
    - Stacked end-to-end equal  $\approx$  19 miles
  - 816,000 SF Deck
    - $\approx$  14 football fields (post to post)



# THE PROJECT



# THE PROJECT

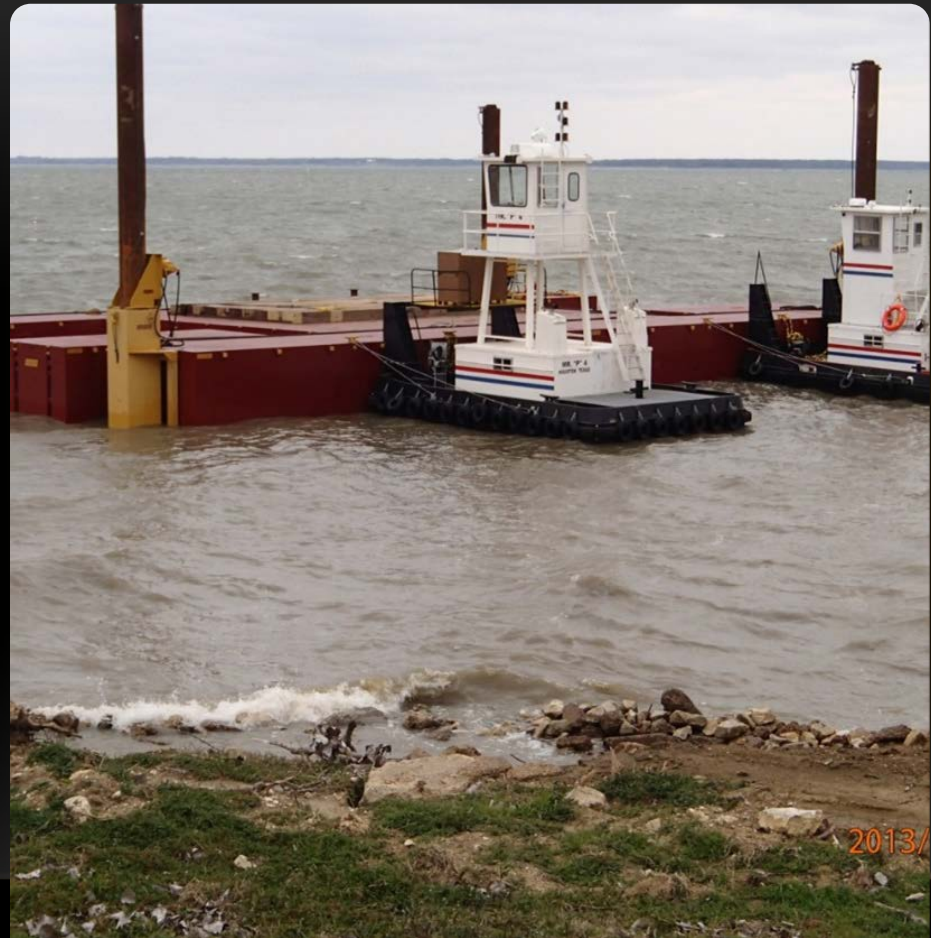


# THE PROJECT



# The Project

- Tugs and work barge



# The Project

- Setting Permanent Casing



# The Project

- Driving Permanent Casing



# The Project

- Placement of Slurry Shafts



# The Project

- Containment Boxes for Drilled Shaft Excavation and Slurry Placement



# The Project

- Drilling to the Marl



# THE PROJECT



# The Project

- Concrete Placement



# CEI CONSULTANT

- Largest Project in the Paris District
- Opportunity to Supplement Engineering & Inspection Staff
- Consultant with Extensive Bridge Experience
- Opportunity for Utilization of Other Funding Sources for CEI – Strategy 111

# THE SELECTION

- Notice of Intent Issued April 3, 2012
- Major Work Categories
  - Roadway Construction Management and Inspection
  - Plant Inspection and Testing
  - Critical Path Method
- 8 Firms Submitted LOI's

# THE SELECTION

- 3 Consulting Firms Shortlisted
- **Rodriguez Transportation Group** Selected
- NTP Issued in October 2012

# THE TEAM

- Rodriguez Transportation Group (RTG)
- Atkins North America
- Lamb-Star Engineering
- HDR Engineering
- PaveTex Engineering & Testing
- SAM-CS

# THE TEAM

- Rodriguez Transportation Group (RTG)
  - Project Management
  - Project Engineering
  - Inspection
  - Project Auditing

# THE TEAM

- Atkins North America
  - Schedule Analysis
  - Time Impact Analysis
  - Claims Support

# THE TEAM

- Lamb-Star Engineering
  - Recordkeeping
  - Engineering Support

# THE TEAM

- HDR Engineering
  - Inspection
  - Engineering Support
  - Environmental

# THE TEAM

- PaveTex
  - Inspection
  - Material Testing
  - Materials Engineering

# THE TEAM

- SAM-CS
  - Quality Assurance
  - Quality Control
  - Independent Auditing
  - Surveying

# THE TEAM

- RTG Team Project Responsibilities
  - Managing the day-to-day activities
  - Coordination with the contractor
  - Inspection
  - Performing material testing
  - Documenting the progress

# THE TEAM

- RTG Team Project Responsibilities
  - Preparing Responses to Mitigate Potential Claims
  - Coordinating with TxDOT Divisions
  - Performing project controls
  - **KEEPING TxDOT INFORMED!**

# THE SUCCESS

- What has made this teaming of TxDOT and Consultants successful is attributed to the following:
  - Constant communication
  - All around support from TxDOT District personnel to Division personnel
  - Allowing consultant to perform their job

# QUESTIONS

