



**T. BAKER SMITH**  
A CENTURY OF SOLUTIONS



# FACILITY ENGINEERING

*T. Baker Smith (TBS) dedicates a suite of integrated, professional services* to our clients operating upstream oil and gas exploration and production facilities, downstream refining facilities, and product manufacturing facilities that work daily to ensure we have the goods necessary to sustain our way of life. As trusted advisors with safety at our core, TBS professionals engage with facility operators, examine facility processes, and employ exceptional, customized solutions to efficiently and safely deliver project outcomes.



## FACILITY ENGINEERING SOLUTIONS

### + Engineering Services

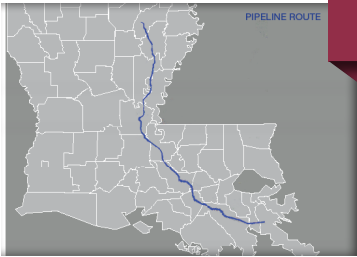
- Project Management
- Front End Engineering Design (FEED)
- AFE Development
- Procurement
- Detailed Engineering Design (all disciplines)
- Pipe Stress Analysis
- Piping Network Hydraulic Studies
- Pipeline & Associated Facilities Design/Remediation
- Equipment & Vessel Design
- Relief System Design/Validation
- Tank Farm/Storage/Loading Facilities
- Fire Protection Design
- Management of Change/HAZID Facilitation
- Construction Management/Support
- Project Management
- Horizontal Direction Drill Design
- Pipeline In-Service Movement and Re-Routing
- Integrity Management
- Regulatory Compliance
- Foundation and Structural Design
- Gas Dehydration System Design
- Root Cause Analysis

### + Drafting Services

- Process Flow Diagrams (PFDs)
- Mechanical Flow Diagrams (MFDs)
- Equipment Layouts /General Arrangement Plans
- Area Classification
- Safe Charts
- Piping and Instrumentation Diagrams (P&IDs)
- Plans, Section and Detail Drawings
- Isometric Drawings
- As-Built Drawings
- 3D Modeling
- In House Laser Scanning Capabilities

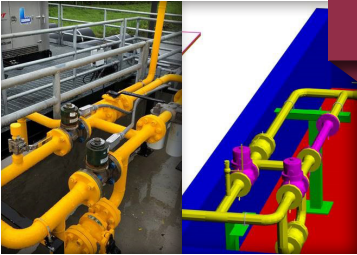
### + Software

- Caesar II – Pipe Stress Analysis
- Pipe-Flo – Hydraulics & Equipment Sizing
- PV Elite – Vessels
- Staad-Pro – Structural Frame Analysis
- Autodesk AutoCad Plant Suite 3D
- CADWorx Plant Professional Suite
- Autodesk, AutoCAD, Civil 3D



### Delta Express Pipeline

The Delta Express Pipeline is proposed to consist of 280 miles of two parallel 42-inch-diameter natural gas pipelines that will traverse from the Delta LNG terminal to a natural gas pipeline intersection near Alto, Louisiana. TBS is providing integrated professional services, including a topographic centerline survey and hydrographic survey for the pipeline route and compressor station sites utilizing UTVs, aerial LiDAR, airboats, and our hydrographic vessels; topographic and boundary survey work for the proposed Delta LNG facility; and environmental surveys, including wetland delineation reports.



### Lafourche Parish Government Cyprien Pump Station Fuel Piping

The project included the design of a new fuel system designed to gravity feed multiple diesel powered pumps, electrical solenoids for valve switching and emergency shutoff, fuel filtration and installation of flanged connections for easy maintenance. With 3D modeling, we generated 2D plans for the client's approval and Isometric Drawings for construction.



### Atchafalaya River to Bayou Shaffer HDD

Project consisted of designing a 22" line under the Atchafalaya River and Bayou Shaffer via HDD installation methods. In addition to the two drills, approximately 4000 linear feet of new pipe is proposed for installation by traditional trenching methods between the Atchafalaya River and Bayou Shaffer crossing. Overall project totals approximately two miles of new pipeline that will cross under two USACE maintained levees. The pipeline needs to be routed and tied into Shell's Berwick Facility. TBS analyzed three alternative routes based on cost, land impacts, wetland impacts, and probability of success. TBS also performed data collection and design of the recommended alternative.



### Nalco - Water Reuse Project

In an effort to reduce waste water and water usage, NALCO Company installed a 30,000 gallon tank and pump system to collect water used in rinsing resin beds. The water was neutralized and used as makeup water for their cooling system. TBS provided a Piping Network Study for pressure and flow rates, foundation designs, piping designs, pipe rack designs, and equipment sizing and selection. TBS also participated in a HAZID study to identify potential hazards during the install.



### Enterprise Launcher and access bridge design

Enterprise Products had a line which needed an intelligent tool run. The line needed a launcher site, a receiver site and an access bridge to the launcher site. With T Baker Smith's multiple engineering disciplines we were able to supply the design for the launcher/receiver, the bridge design and survey/tracking services to assist in execution of this project.

#### LOCATIONS

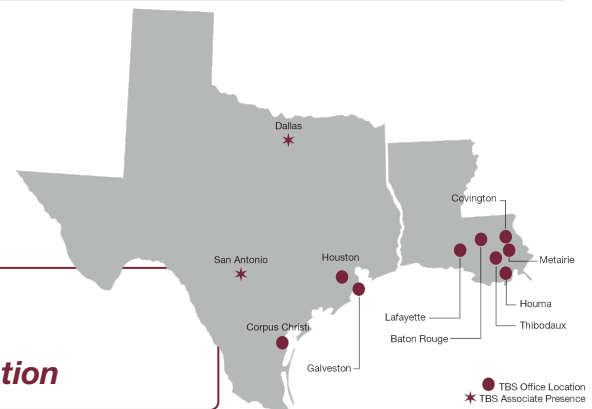
Lafayette, Louisiana.....	337.735.2800
Baton Rouge, Louisiana.....	225.744.2100
Thibodaux, Louisiana.....	985.446.7970
Covington, Louisiana.....	985.302.0730
Metairie, Louisiana.....	504.323.3460
Houston, Texas.....	281.240.0113
Corpus Christi, Texas.....	361.334.5719
Galveston, Texas.....	409.220.1669

#### CORPORATE HEADQUARTERS\*

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**Scan for  
more information**



● TBS Office Location  
★ TBS Associate Presence