



**Pickett, Kelm & Associates, Inc.**  
Consulting Structural Engineers

1795.doc

**PROJECT**

**LOCATION:**

BEE CAVE, TEXAS

**PROJECT OWNER:**

LOWER COLORADO  
RIVER AUTHORITY

**CIVIL ENGINEER:**

PBS&J

**GENERAL**

**CONTRACTOR:**

MW BUILDERS

**PROJECT**

**COMPLETED:**

2006



**CONSTRUCTION COST:**

\$1,445,000

## LCRA West Travis County Chemical Building

**PROJECT DESCRIPTION:**

Pickett, Kelm & Associates, Inc. designed this 1775 square foot, single-story chemical building at the LCRA West Travis County Regional Water Treatment Plant site in the Village of Bee Cave, Texas.

The chlorine storage room contains up to ten 1-ton liquid chlorine cylinders on steel frames secured to a raised concrete pad. Cylinders are delivered by forklift through the overhead coiling door, set on embedded stainless steel floor rails, and lifted into place with an overhead 2-ton electric hoist and trolley. The floor slab slopes to a sump with chemical-resistant FRP grating, and gas-detection monitors activate room ventilation to the scrubber in the event of a leak. Additional rails are provided outside for temporary staging of empty cylinders. Adjacent chemical rooms, designed for chemical storage and delivery systems, also include provisions for chemical handling, secondary-containment, and spill monitoring. FRP doors and frames, as well as chemical-resistant finishes at the walls and ceilings, were provided at each of the chemical rooms. An emergency generator, gas detection devices, remote and local alarms and an automatic fire sprinkler system were provided to meet life safety requirements. Adjacent building spaces accommodate electrical equipment and an exhaust scrubber.



The structure consists of reinforced and fully-grouted load-bearing CMU walls. Steel bowstring bar joists support the barrel vault roof with a standing seam pre-finished metal skin. The foundation consists of a concrete slab-on-ground, with continuous perimeter grade beams and interior stiffening grade beams. Exterior cladding consists of a combination of split-face concrete masonry, EIFS and glass block.