

## Reliant Stadium

### LOCATION

Houston, Texas

### OWNER

Harris County, Texas

### ARCHITECT

HOK Sports+Venue+Events Group, and HSC (Houston Stadium Consultants)–Hermes Reed Architects and Lockwood, Andrews, Newman

### CONSTRUCTION MANAGER

Manhattan Beers, a joint venture of Manhattan Construction Co. and Beers Skanska

### STRUCTURAL ENGINEER

Walter P. Moore and Associates

### CIVIL ENGINEERS AND SURVEYING

Turner Collie & Braden, Inc.

### CONCRETE

Baker Concrete Construction

### MASONRY BLOCK MANUFACTURER

Revels Block & Brick Co., Inc.

### MASONRY CONTRACTOR

Lucia, Inc.

### STADIUM FACTS

Seating capacity of 69,500  
Club seating for 8,200

## TXI's Expanded Clay Lightweight Aggregate Shines in the "Crown Jewel of the NFL"



Reliant Stadium (left), Houston Texas

### RELIANT STADIUM – HOME TO THE HOUSTON TEXANS

The National Football League's newest expansion team, the Houston Texans, found the stars in alignment in winning their first regular-season game over their in-state rival, the Dallas Cowboys.

Construction of the beautiful Reliant Stadium began in July 2000, and was completed in just 26 months with the help of hundreds of independent contractors and suppliers, including TXI Expanded Clay. The stadium was finished and ready for the Texans' opening day on September 8, 2002.

Dubbed the "Crown Jewel of the NFL," Reliant Stadium incorporates TXI Rotary-Kiln lightweight aggregate throughout. The project includes over 800,000 lightweight 8" x 8" x 16" concrete masonry units (CMU's) in the wall system. The stadium is also the world's first NFL retractable-roof stadium. Reliant offers suites that are larger and closer to the playing field than those in older NFL stadiums. Another appealing feature of the stadium is the 50-foot-wide concourse with restaurants, retail shops and other amenities. The wide spacing of the concourse allows an open view to events from the



Reliant Stadium main entrance.

concourse level. At the same time, Reliant Stadium is a multi-use facility that will host many kinds of events in addition to football. For example, the Houston Livestock Show & Rodeo, concerts and conventions are among the many events that will be held in this beautiful facility.

#### **TXI PROVIDES 7,500 CUBIC YARDS OF ROTARY-KILN STRUCTURAL LIGHTWEIGHT AGGREGATE**

TXI's contribution to Reliant Stadium promoted speed of construction and provided considerable cost savings. CMU's manufactured with lightweight aggregate weigh less. Masons are able to work steadily with less fatigue because lightweight CMU's are easier to lift and install. This increases productivity and shortens construction time. Lighter CMU's also reduce dead load, which means smaller beams and less rebar are required in the supporting floors and walls. This affords overall construction savings.

Lightweight units are friendlier to the environment. Because lightweight CMU's weigh less than normalweight CMU's, fewer truckloads are necessary for delivery to the jobsite. In addition to transportation savings, fewer trucks mean less air pollution, and safer, less congested roadways.

All interior walls were constructed with lightweight CMU's made from TXI Expanded Clay aggregate. **Revels Block & Brick Co., Inc.** produced the approximately 800,000 eight-inch CMU's and **Lucia, Inc.** installed them.

**AS THE PREMIER BUILDING MATERIAL, LIGHTWEIGHT CMU'S MADE WITH ROTARY-KILN STRUCTURAL LIGHTWEIGHT AGGREGATES PROVIDE A WIDE RANGE OF ADVANTAGES AND BENEFITS.**

**To the Owner and the Occupant**

- Earlier occupancy
- Reduced heating and cooling costs
- Exceptional fire resistance
- Sound absorbing
- Low sound transmission
- Nailable surface
- Impact resistant
- Low maintenance
- Wind resistant
- Termite proof
- Long term durability
- Non-toxic
- Easy to paint
- Excellent life cycle economy
- Excellent return on investment

**To the Architect, Engineer and the Designer**

- Greater design flexibility
- Less deadload
- Less seismic load
- High strength
- High strain capacity
- Less chipping
- Multiple colors, shapes and textures
- Readily available
- Cost competitive
- Structural stability
- Structure and finish in one
- Exceptional freeze-thaw durability

- Aesthetically pleasing
- Low shrinkage
- Less cracking and chipping
- Excellent energy performance: High R-values with thermal mass and low thermal bridging

**To the Mason Contractor**

- Mason friendly
- Up to 40% less weight compared to heavy weight masonry units
- Less mason fatigue
- Fewer mason injuries
- Fewer Worker Compensation claims
- Opportunity for both male and female masons
- Extends mason careers
- Speedy construction
- Rarely collapses bed joints
- Reduced wear on equipment
- Less weight on scaffolds
- One mason on a 12" unit
- Reduced job overhead
- Lower labor costs
- Lower over-all wall cost

**To the Block Manufacturer**

- Lower delivery cost
- Maximizes concrete masonry competitiveness
- Less chipping and cracking
- Expands masonry market
- High degree of customer satisfaction

For Additional Information About ESCS Applications and Lightweight CMU's, Contact  
**TXI**

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or

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