

## 2.0 Building Description

### 2.1 Client Overview

Client: LA Fitness International, LLC

LA Fitness International, LLC is renowned for establishing high quality exercise facilities across the United States. The company was established in 1984 in Southern California. LA Fitness currently owns and operates a total of 135 sports clubs in California, Arizona, Florida, Georgia, Pennsylvania, New Jersey, New York, Connecticut, Texas, and Washington. The company takes great care to ensure that their facilities are on the cutting edge of fitness.



The West Oaks location in Houston Texas is 45,000 square foot, two story facility. Each LA Fitness location offers different activities for their users to enjoy. This location of LA Fitness has diverse spaces including cardio rooms, basketball and racquetball courts, offices, juice bars, a child care center, locker rooms, and an indoor pool.

LA Fitness states on their website (<http://www.lafitness.com>) that although each of their clubs has its own distinct personality, the company strives to have a common thread or elicit a feeling of familiarity between each location's indoor environment.



## 2.2 Building Statistics

Building Name: LA Fitness, West Oaks

Address: 8906 Highway 6 South  
Houston, TX 77083

Owner/Occupant: LA Fitness International, LLC

Function: Sports club and exercise facility

Size: 2 stories; 45,000 ft<sup>2</sup>

### Primary Project Teams:

General Contractor: Ridgemont Construction  
Construction Manager: LA Fitness International, LLC  
Architects: Heights Venture Architects, LLP  
MEP Engineers: Advanced Technologies, Inc.  
Structural Engineers: BGA Engineers  
Civil Engineers: Cobb Fendley & Associates  
Interior Designers: Senninger Walker Architects

Dates of Construction: Start: 5/9/05      Finish: 12/9/05

Cost of Building: \$4.5 Million for building project  
(cost does not include 5 acres of land)

Project Delivery Method: Design-bid-build

## 2.3 Architectural Design

Heights Venture Architects designed this building to serve as a temple to fitness. There is much diversity as to the function of the interior spaces. A goal of the designers was to make the spaces inside feel open and comfortable. This was primarily accomplished by leaving the middle of the first floor open to a 25 foot ceiling and designing a U-shaped mezzanine looking down to the first floor. The exercise equipment on the main level dictates the flow and paths of motion through the double-heighted space.

The front façade is brick veneer. The exterior walls make use of tilt-up construction with minimal 4" stud walls furred out on the inside of the tilt. These walls have an insulation value of R-13. A structural steel system supports the tilt wall. The windows are 1" tinted insulated glass. There is a built up roof with an overall R-22 insulation value.

#### 2.4 Original Mechanical System Description

The LA Fitness mechanical system is unique because of the variety of spaces that it serves. In this design, the ventilation and conditioned air for the building is handled by thirteen direct expansion (DX) packaged rooftop units. These are natural gas fired units. Eleven of these units serve single zones. This design also allows for less ductwork because many of the rooftop units are located right above the zone that the unit serves. The water side load for the building is mainly handled by three natural gas fired water heaters. Water from these heaters is provided at 120°F. There is also one small electric water heater to serve the juice bar area.

#### 2.5 Other Building Systems of Interest

##### Structural:

The structural system makes use of steel as the primary means of handling the load. This LA Fitness has a composite floor construction. The floor consists of 4-1/2" normal weight concrete slabs over 20 gauge composite steel deck which is all supported by steel beams. The envelope walls use a tilt-up construction system that is made of 8" thick normal weight concrete. There is a flat roof that uses long span steel joists for its support.

##### Electrical:

The service utility is transformed down to 277/480 V outside of the building. (4) 600 kcmil conduits are run underground and pulled into an area on the exterior façade of the building. There is one main electrical room which serves the majority of the panels for the building. In this room the high voltage panels can be served directly. There is also a transformer in this room that takes the power down to 120/208 V to serve the remaining panels. Outside of the electrical room, there are panelboards located at the Juice Bar and the pool room to better serve these areas.

##### Lighting:

There are four types of lamps used in this building: fluorescent, metal halide, ceramic metal halide, and LED. Most of the interior lighting is served by 4-lamp fluorescent fixtures that hang in 2' x 4' recessed troffers. The lighting power density of the existing design is 1.2 W/ft<sup>2</sup>.