LA Fitness, West Oaks

8906 Highway 6 South
Houston, TX

http://www.arche.psu.edu/thesis/eportfolio/current/portfolios/djm364

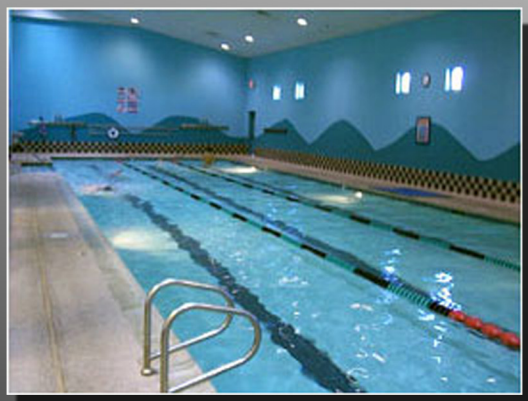
David Melfi
Mechanical Option

Architecture

- Two story, 45,000 ft² fitness center
- Large double height cardio space
- Mezzanine with exercise equipment overlooking cardio space
- Spaces have distinct different functions such as basketball, strength training, swimming, child care, racquetball, and aerobics

Primary Project Team

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



Structural

- Composite floor construction
- 4-1/2" normal weight concrete slabs over 20 gauge composite steel deck supported by steel beams
- Tilt-up construction envelope made of 8" thick normal weight concrete
- Wood truss system on roof supported by metal plates

Mechanical

- Mechanical load served by (13) packaged rooftop units
- Energy source for units is natural gas
- Energy recovery wheel used in pool zone
- Pool area is a critical space regarding indoor air quality and condensation control due to Houston's extremely high levels of humidity

Construction

- Project cost: $4.5 million
- Start Date: 5/9/05
- Turnover Date: 12/9/05
- Delivery: Design-Bid-Build
- Tilt-up construction used on exterior façade for quicker delivery

Electrical/Lighting

- Service utility transformed to 277/480V outside the building
- (4) 600kCMIL conduits run in from underground to serve building
- One main electrical room with (3) 120/208V panels and (2) 277/480V panels
- 2 additional 120/208V panels serve pool and juice bar areas
- Emergency lighting provided by battery backup wall sconces
- Interior lighting is primarily 2x4 fluorescent fixtures
- Exterior façade has wall-mounted metal halide lighting
- Parking lot served by pole-mounted HID floodlights