

## **Category: 05-Best Building Project-(\$2-\$6 Million – Subcontractor)**

### **Subcontractor: Stresscon**

### **Project Name: Centennial Tennis Center**

The Lifetime Fitness Centennial Tennis Center addition provides a new, state of the art tennis facility for the South Denver metro area. The 34,530 square foot facility is the second Lifetime building on the Centennial campus, and houses ten indoor courts, a video analysis room, a tennis specific pro shop, locker rooms, an indoor viewing lounge, and indoor landscaping.

Extensive coordination was necessary to ensure that Lifetime Fitness' rigorous project requirements were met. With the entire structure being comprised of precast components, an onsite crane for erection and installation, a project team facilitating, and the current Lifetime gym facility open while serving members, the project activities had to avoid any potential disruption to the existing facility and meet an expedited schedule. Stresscon provided all precast products and completed the erection of the facility in a 28 day period.

Several factors contributed to a successful team approach and efficient project execution. Stresscon provided value engineering for numerous precast components. The use of precast products offered speed of delivery and erection, inherent structural capacities and architectural aesthetics, and flexibility to successfully coordinate with the other building trades.

Given the significant maintenance required for the EFIS cornice features in their existing facilities, Lifetime decided to create a total precast structure incorporating an architectural sandblast cornice to minimize future maintenance costs. The Centennial Tennis Center is Lifetime's first total precast project, and the first project with precast cornice features. The Owner emphasized the company's desires, and stressed the need for superior quality with attention to detail. A collaborative approach by Stresscon and Lifetime Fitness ensured that Lifetime's system change allowed for greater product quality and long term durability.

Stresscon's comprehensive field coordination and expertise allowed for project time savings during installation, prevented field and trade coordination conflicts, and addressed the needs of Lifetime Fitness prior to, and throughout, the entire project to prevent discrepancies or errors. Carefully controlled plant fabrication maximized quality and product performance, and provided a reduced trade schedule since fewer subcontractors were involved.

The precast scope consisted of 428 pieces, including a roof composed of prestressed sixteen inch deep "tubby tees", inverted tee beams, columns, sandblast architectural cornice, solid walls, and insulated architectural sandblast thin brick wall panels. Lifetime owns their own shallow depth "tubby tee" form, which was shipped to, and installed, at the Colorado Springs plant. The specific section details were created by Lifetime, and the "tubby tees" were fabricated by

Stresscon per the details specified. Stresscon was able to deliver the precast cornice components, along with high energy efficiency Thermomass walls, columns, inverted tee beams, and tubby tees to meet all precast design requirements.

The twelve inch Thermomass wall panels were produced on a long line production facility, allowing for prestressing of the walls to maximize the structural capacity and create an economical, architectural wall panel. Thin brick was cast into the wall panels with the use of a 1/3 running bond form liner and the required architectural face mix to brick color match. The wall panels are designed to achieve a steady state R-value, meeting project economies and insulation requirements.

A special architectural color scheme enhances this aesthetically pleasing project, and is compatible with the existing Lifetime gym facility. The distinct color combination of three colors of utility size thin brick includes ivory, medium sandstone, and dark sandstone. Two colors of architectural face mix in buff and medium brown are used on the precast panels to blend the new building with the existing Lifetime Fitness facility. A buff band with acid etch finish separates the brick colors and creates design appeal in the panels.

Stresscon is proud to have partnered directly with the Lifetime facilitators in the creation of a high quality product that showcases the beauty of precast components. This long lasting and economical product showcases structural and architectural features, provides inherent thermal efficiency, and meets the maintenance requirements of the Owner. Stresscon's successful team approach ensured a safe, efficient, and flawless installation of the project.







