

Cowboy Roundup

The Dallas Cowboys football team has a new home in Arlington, Texas, and it is one big venue. With a seating capacity of 80,000 and standing room that can bring the total number of spectators to over 100,000, Cowboys Stadium is the largest domed stadium in the world. And the superlatives don't end there. It contains the world's largest video screen, a 160-by-72-foot 600-ton colossus hovering from one 20-yard line to the other. The stadium also boasts the largest column-free interior, with a pair of 300-foot-high arches that run from one end of the dome to the other with 180-foot-high glass doors at each end. ►



In addition to serving as home to the Dallas Cowboys, Cowboys Stadium also plays host to a variety of college sporting events, such as the football game shown here between Brigham Young University and Oklahoma University. Photo credit: James Smith/Dallas Cowboys.



► A responsible vision

From the very beginning, Cowboys owner Jerry Jones was committed to making the new stadium as environmentally responsible as possible. In partnership with U.S. Environmental Protection Agency and as part of the agency's National Environmental Performance Track Program, Cowboys Stadium set long-term goals of saving energy and water, and reducing its waste and environmental footprint.

Dallas-based architectural firm HKS Inc., and Manhattan Construction, the stadium building contractor, incorporated many environmentally conscious features into the structure. For example, even when the dome is closed the massive glass doors can be opened to provide fresh air and reduce demand on the cooling system. Through a range of conservation measures the stadium is estimated to save over 1 million gallons of water annually. A unique permeable pavement surrounding the stadium exterior protects nearby streams from excessive runoff, and the addition of 2,000 trees adds to the structure's compatibility with the local geography.

The translucent roof, in combination with the glass doors at each end, offer abundant natural lighting, even when the roof is closed, further reducing energy costs. Recycled plastic was used for stadium seats, and all plastic, metal and cardboard

waste is recycled. According to Jerry Jones, "If you start early enough in the design with your architect and have that green mentality through construction, you can design towards these kinds of savings." And, concerning the additional cost of environmental responsibility, he continued, "We're spending \$1.2 billion total here, so it makes sense to build these features into the overall design. We significantly minimized our cost because we got on it so early."

Ride 'em, Cowboys!

Energy savings are also achieved in the systems used to move spectators within the gigantic stadium. Schindler provided 22 escalators and 18 elevators; the latter with energy-efficient Variodyn® variable frequency drives. Of course, energy efficiency isn't the only requirement for the Schindler equipment ... team colors are used extensively, along with custom interiors in the elevator cabs, where even the destination buttons are star shaped. Installing the escalators and elevators was an added challenge since the equipment had to be hoisted into position. Of course, the need to move as many as 100,000 spectators before and after stadium events is crucial, and Schindler equipment is up to the task. To help ensure optimum reliability, Schindler technicians maintain the equipment in peak condition on an ongoing basis and are on standby inside the stadium during events.

Photo left: Cowboys Stadium under construction.
Photo credit: Richie Humphreys/Dallas Cowboys.
Photo middle: Schindler escalators are visually integrated with a variety of artwork collections throughout the stadium. Photo right: Schindler elevator car station with custom Dallas Cowboys star buttons.



Schindler Variodyn elevator drive systems are exceptionally energy efficient, saving up to 50 percent more energy than alternative types of drives. They convert the AC electric supply to variable frequency AC with virtually no loss of power. When the elevators are braking they actually produce electric power and feed it back into the power grid, significantly reducing the overall carbon footprint of the equipment.



Photo credit: James Smith/Dallas Cowboys.

Cowboys Stadium Fast Facts

Opened:	June 6, 2009
Seating:	80,000
Luxury Suites:	300
Construction cost:	\$1.2 billion
Field surface:	artificial turf
Total stadium area:	3 million square feet
Total site area:	73 acres
Levels:	10
Domed retractable roof:	660,800 square feet
Roof height:	292 feet above field at apex
Video board screens:	25,670 square feet

Every amenity

If you've ever been to a sporting event, chances are that while you've stood in a concession line you've heard the crowd go wild and realized you just missed a big play. Well, that won't happen at Cowboys Stadium, thanks to 3,000 television screens located throughout the concession areas, suites and concourses, making it just about impossible to miss out on any of the action. There are 14 bars and lounges and 300 luxury suites, each with its own bar or lounge and private restroom. Catering is offered under the supervision of an executive chef. Concessions offering a wide range of food abound, and every element of the structure is adorned in Cowboys colors of silver or blue.

While one would not expect to find artwork gracing a sports stadium, Cowboys Stadium features a growing collection of works by Olafur Eliasson, Franz Ackermann, Mel Bochner, Daniel Buren, Matthew Ritchie, Dave Muller, Lawrence Weiner and other notables. Some might say the stadium is itself a work of contemporary art, and despite all that silver and blue it's also surprisingly green. ■