

# RadioShack



Electronic Giant Tunes Into  
Downtown Fort Worth

A worker on a boom lift continues caulking a portion of the balcony near the "top hat" atrium on one of the office buildings. The view shows the numerous types of materials used in the design.

(Photo © John W. Davis, ASMP Dallas Visual Design)



BY STEVE FREEMAN

# Beck Group Fine Tuning **RadioShack's** Fast-Tracked Project

While the majority of business campuses are found outside center-city limits, the Fort Worth-based consumer electronics giant's new corporate campus is on an approximately 31-acre site in downtown Fort Worth.



## Fort Worth Redefines Urban Sprawl With \$200 Million Downtown Campus



**TOP:** Two of the three office buildings will overlook green space on three sides and exhibit the traditional masonry design that complements other buildings in nearby downtown Fort Worth.

**BOTTOM:** The 450-seat dining room lets in natural light via the expansive glass wall.

**ABOUT 2,400 EMPLOYEES** will move into the new \$200 million RadioShack corporate headquarters in downtown Fort Worth by early next year.

The consumer electronics retailer's six-building urban campus sprawls over a 31-acre hill, sloping down to the Trinity River.

Most business campuses are found in suburbs, but RadioShack desired to keep a downtown address as a good corporate citizen in Fort Worth, said Bill Knotts, senior director of corporate real estate for RadioShack. The parent company started there in 1919.

Deciding to stay, however, didn't mean construction as usual. The 900,000-sq.-ft. project involved a 30-person group from Dallas-based general contractors The Beck Group alone. The 70 subcontractors often managed several crews, totaling 1,000 workers onsite some days. It was a project equally complex in terms of materials, earth-friendly

techniques and architectural styles.

To accomplish the desired 23-month project, Beck made some key management decisions early on. The firm outsourced document management so plans could be viewed online the same day and paper copies delivered in 24 hours. The Staubach Co. of Dallas, project manager, also contracted for a Web-based intranet service. Dennis Sewell of Staubach said the service aided in integrated decision-making by the 160-person management team, which included subcontractors.

"We needed new solutions constantly," said Drew Thigpen, senior project manager for The Beck Group.

The project was fast-tracked due to RadioShack's readiness for occupancy. Speedy delivery also saved the company in utility bills, insurance and overhead costs of construction. Beck worked with architect HKS Inc. of Dallas



LEFT: The jackknife edge of the commons building features an employee dining room and, above, a conference room, both with a panoramic view of the Trinity River. (Photo © John W. Davis, ASMP Dallas Visual Design)

RIGHT: A distinguishing trait of each office building is the atrium or "top hat," part of the numerous open areas for collaborative meeting space for future employees occupying the building. (Photo © John W. Davis, ASMP Dallas Visual Design)

to structure a four-package bidding process, divided by pier and site work, core and shell, parking garage and interior. Subcontractors were required to show proof that they were capable of working large projects with multiple crews and tight time frames.

#### STYLE AND SUBSTANCE

The architectural drawings show a six-building mid-rise office park. Kirk Teske,



senior vice president of HKS, said the exteriors facing downtown resemble traditional early 20th Century masonry buildings. Sides of buildings facing the river are more "suburban," with expansive views for all occupants. The mirror-like glass reflects the canopied Texas sky.

Three six- and seven-story buildings are for office use. Each floor measures 30,000 sq. ft. A four-story jackknife-shaped commons building connects the entire campus. It houses a four-story rotunda, two-story entrance lobby, conference and training rooms, 450-seat dining room, employee fitness center, three prototype retail stores and a 40,000-sq.-ft. broadcast/advertising studio.

The major thoroughfare through the building is a two-story corridor called "Main Street" running longer than a football field.

Branching off the commons building is a seven-story 2,400-car parking garage with below-grade service tunnel and a three-truck loading dock.

The sixth building is a showcase retail store and interactive electronics museum. The building is topped with a ringed metal sculpture bearing the company's "R" logo.

A grassy park separates the flagship store



TOP: Views from the Trinity River reveal a different design than the masonry used on the building sides facing the central business district. These curtain walls of glass optimize employee views of the river and landscaped greenway.

BOTTOM: A screen wall of metal panels hide chiller pipes and exhaust fans on the roof of the commons building. (Photo © John W. Davis, ASMP Dallas Visual Design)

from the main buildings and front entrance. It features an amphitheater of layered levels for outdoor gatherings and a 300-ft. semicircular waterfall, dropping from 15 ft. to 2 ft.

Teske said RadioShack wanted a headquarters that encouraged free flow of people and collaboration among its employees. HKS created a structure with 70 percent open spaces, compared to 30 percent at the previous headquarters. Connector walkways run perpendicular to the length of the three office buildings. Prominent open stairways accommodate vertical people movement, as do three passenger elevators in each building.

Each office building has a prominent two-story atrium-like meeting room facing the river that rises above the roofline and features an outdoor balcony and latticed overhang of

composite panels.

RadioShack already owned a 13-acre parcel of land at the new site, which was used for parking for its previous headquarters a few blocks away. Adding to that, the company purchased a 23-acre 42-building federal public housing project, which it demolished.

RadioShack committed to an environment-friendly building program by seeking Leadership in Energy and Environmental Design certification by the U.S. Green Building Council. Much of the materials resulting from demolition were recycled or donated to Habitat for Humanity.

The indoor air-quality component required maintaining a weather-tight building during construction by using temporary roofs, finalizing the exterior skin early and installing only sealed ductwork.



LEFT: With scaffolding still in place, a four-story rotunda of pre-cast stone and glass takes shape at the main entrance. (Photo © John W. Davis, ASMP Dallas Visual Design)

RIGHT: The skeletal frame for the flagship RadioShack retail store awaits completion. It is topped with a tube and steel framework to be clad with aluminum composite panels, which will brand the store and the entire campus as a showcase for the company. (Photo © John W. Davis, ASMP Dallas Visual Design)

### WORK GETS UNDER WAY

The 23-month schedule began with the four-month demolition of the housing project and relocating or abandoning its extensive utilities. All utilities were relocated around the new parcel's perimeter.

Cooper Excavation Inc. of Dallas stayed with the project for two years for the initial work as well as gutting a 6-acre parking lot,



backfill of walls, grade-beam work and digging out two landscape ponds close to the river. Cooper used D9R tractor bulldozers and an 8,000-lb. hoe ram.

"A two-year presence is unusual, but it was required due to the gradation and expansive nature of the project," Beck senior project manager Thigpen said.

Crews faced a 90-ft. topography change from the farthest point of the property to the lowest point near the river. Still, the cut-and-fill work neared an exact trade-off because the buildings were not to be planted deep. Planners also contended with the 100-year flood plain, which required creative staging. Drilling for piers meant dealing with various types of soil, from tan limestone to gray rock and, closer to the river, clay and sand with cave-in potential. Brent Lawler of Fort Worth-based ATS Drilling said crews drilled 15 ft. at the highest point of the property and as much as 90 ft. near the river. They used varying drill lengths and casing sizes to hold back the walls and water until the 893 reinforced concrete piers, totaling 9,839 cu. yds., were in place.

"Most jobs are 80 holes; this was 10 times that," Lawler said.



TOP: A mud bed awaits ceramic tiles along the football field-long corridor in the commons building known as "Main Street."

BOTTOM: Work continues on a two-floor open connector walkway between the commons building and one of the office buildings.



Concrete foundations were laid in May 2003 with a high fly-ash content to reduce emission of gas and minimize pollution. A total of 80,000 cu. yds. was poured. A unique reinforced steel strength of grade 70 (versus the usual grade 60) reduced overall tonnage and saved money.

Seven tower cranes began shell and core work by installing slabs and columns. Thigpen said tower cranes were chosen despite the low-rise building status because of steep gradation, complexity of utilities, trenching and ditching and the fact that they offered a coveted swing radius on the site increasingly busy at ground level.

"The site looked like an ant hill," Thigpen said.

The Staubach Co. installed video cameras and broadcasted real-time activities so

construction managers and owners could watch progress throughout the day.

### BUILD-OUT

Adding to the project's magnitude and complexity, masonry, fossilized Lueders limestone, glass, precast stone and composite aluminum panels were all used.

"Not many buildings have this many varied materials coming together," Thigpen said. "This meant that as we were developing the design, we were developing skin details."

All exterior materials had to be custom designed and built. The variety of skin meant extensive flashing and back-up to keep it waterproof. Superior waterproofing was desired to achieve another LEED requirement and speed the start of quality internal work.

Low-E glass by Viracon was used to

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reduce heat flow. About 200,000 sq. ft. of glass and metal were used for the curtain wall. About 150,000 sq. ft. of architectural metal panels were used to cap the edges of the buildings for added aesthetics. The aluminum composite material called Alpolic was custom manufactured by Mitsubishi Chemical Corp. of Tokyo and attached by Classic Industries of Forney.

The garage houses a 20,000-sq.-ft. central plant to distribute electrical, communication, control conduits and HVAC piping systems through the campus via the commons building. The plant includes five 700-ton supply-and-return Trane chillers, a PLC-driven electrical system with 15,000-volt primary input and a parallel switch gear, a Mahrtrrom 150-horsepower diesel-run fire pump, three 1,500 kw emergency generators and a 6,000-gallon fuel system for the generators and fire pump. Heating is accomplished by two York air handlers on every other floor and distributed by ducts with electric heaters. •

### KEY PLAYERS

Owner: RadioShack Corp., Fort Worth

Project Manager: The Staubach Co., Dallas

General Contractor: The Beck Group, Dallas

Architect: HKS Inc., Dallas

Civil & Environmental Engineer: Carter &

Burgess Inc., Fort Worth

Shell and Core Mechanical: Brandt

Engineering, Dallas

Shell and Core Electrical: Humphrey &

Associates, Dallas

Masonry: Texas Stone & Tile, Ft. Worth

Rebar Supplier: The Lofland Company, Dallas

Formwork: Capform, Carrollton

Concrete Materials: Lattimore Materials Co.,

McKinney

Curtain Wall & Window Wall Systems: Oak Cliff

Glass & Mirror Co., Dallas

Core & Shell Drywall: Integrated Interiors, Ft.

Worth

Millwork: Facility Construction Services, Dallas

Carpet: Re: Source Texas, Dallas

Composite Metal Panels: Classic Industries,

Forney

Misc. Steel: North Texas Steel, Ft. Worth

Demolition: Midwest Wrecking, Ft. Worth

Structural Engineer: Walter P. Moore, Houston