

Buffalo Complex

New Life Sciences Center Will House High-Tech Laboratories

by Natalie Keith



The new complex in Buffalo will house laboratory space for the University at Buffalo Center of Excellence in Bioinformatics and the Roswell Park Cancer Institute. (Photo by Noreen Ersing/Cutting Edge Photo).

Construction on the \$88 million, 290,000-sq.-ft. Buffalo Life Sciences Complex in Buffalo, will finish on schedule in December, despite delays from programmatic changes and steel fabrication backlogs.

“Each owner has had some programmatic revisions, and there were issues with the steel, but Turner [Construction] has still been able to keep to the schedule,” said Jim Gray, director of construction administration for the Dormitory Authority of the State of New York, which is overseeing the project.

Seven area institutions – the State Uni-

versity of New York’s University at Buffalo; Roswell Park Cancer Institute; Hauptman-Woodward Medical Research Institute; Buffalo Hearing & Speech Center; Olmsted Center for the Visually Impaired; Buffalo Medical Group Foundation; and Kaleida Health – make up the Buffalo Niagara Medical Campus, which was founded in April 2001. Construction finished in May on the first facility on the campus, the Hauptman-Woodward Center for Structural Biology, built by Ciminelli-Cowper Construction, a joint venture.

New York-based Turner broke ground in September 2002 on the new life sciences complex, which was designed by Philadelphia-based Francis Cauffman Foley Hoffman Architects. The project team topped out the building in July 2004.

The complex, at Ellicott and Virginia streets in Buffalo, consists of space for the University at Buffalo Center of Excellence in Bioinformatics and the Roswell Park Cancer Institute. It will be connected to the structural biology center by a pedestrian walkway that spans Ellicott Street.

The two sides of the life sciences complex share about 35,000 sq. ft. in common areas and building-support services. Roswell Park’s side of the building will be five stories high with a two-story mechanical penthouse and 165,000 sq. ft. dedicated to life sciences research facilities for genetics, pharmacology, and therapeutics programs. About 85 percent of the Roswell Park portion will have wet labs for biological and genetic research, while the rest will contain offices, conference rooms, and building mechanical space.

The Buffalo Center’s side of the building will have four stories with a two-story mechanical penthouse. It will provide 130,000 sq. ft. of space for supercomputing systems and facilities for product commercialization, drug design, workforce development, and three-dimensional visualization.

As construction manager at risk, Turner can earn a guaranteed maximum price of \$88 million under an arrangement in which the company, rather than the dormitory authority, holds the construction contracts. If the job cost exceeds the maximum amount, Turner must absorb the difference.

“This is a new approach for DASNY, but this gave Turner more flexibility >>

to address issues with steel early in the job," Gray said.

To meet an aggressive schedule for completion, the project team decided to pursue early bid packages in fall 2003 for four items – mass excavation, foundation concrete, underground plumbing, and structural steel, said Steve McGlone, senior project manager at Turner.

As the price of steel skyrocketed in early 2004, Turner was able to avoid additional cost to the project because it was able to fast-track the bid packages. "Waiting would have meant a seven-figure increase in the cost of the job," McGlone said.

But Turner wasn't as lucky when it came to the steel fabrication. The building's design required detailing on the steel that took longer than originally anticipated, causing a three-month delay in getting finished steel to the site. To make up for the lost time, the project team moved up schedules for other work, such as curtain wall and masonry.

"This is not just a square box – there are a lot of angles," McGlone added. "There aren't too many straight lines to the building, so this complicated the job of the steel designers and fabricators."

The exterior is a curtain-wall system with custom-configured metal panels, though the mechanical penthouses will have a zinc panel face, McGlone said.

"Zinc is a naturally occurring metal," he added. "It doesn't rust, so it will save the owner money with maintenance."

The project team was also able to purchase custom-built air-handling units required for the laboratories at a reduced price through Turner Logistics. That Turner division buys products for projects across the country, which enables it to negotiate favorable prices with vendors, McGlone said.

The project team placed five air-han-



To meet a fast schedule, the project team pursued early bid packages in 2003 for excavation, foundation concrete, underground plumbing, and structural steel. (Photo by Noreen Ersing/Cutting Edge Photo).

dling units, which weigh 350,000 lbs. apiece, on the top of the building. They were shipped in 10 sections, each weighing 35,000 lbs. The team had to close site roads during transport of the units, McGlone said.

"It was a logistical challenge getting the units to the site," he said. "We had to install them to meet our deadline of having the building enclosed by December 2004."

The dormitory authority is trying to attain certified-level Leadership in Energy and Environmental Design status from the U.S. Green Building Council. The project also obtained a \$750,000 grant from the New York State Energy Research and Development Authority for installation of energy-efficient features.

The complex will be one of only a handful of laboratories across the country to earn LEED certification, said Kevin Thompson, director of facilities, planning, and design for the University at Buffalo.

"We decided early on that we wanted it to be a LEED-certified building," Thompson added. "For a science and research building, that's pretty remarkable." <<

Key Players

Owners: Dormitory Authority of the State of New York, University of Buffalo, Roswell Park Cancer Institute

Construction Manager: Turner Construction, New York

Architect: Francis Cauffman Foley Hoffmann, Philadelphia

MEP Engineer: BR + A, Watertown, Mass.

Site/Civil Engineer: Watts Engineering, Buffalo

Structural Engineer: Leslie E. Robertson, White Plains, N.Y.

Steel Contractors: Cives Steel, Augusta, Maine; Contour Steel, Eden, N.Y.; Seneca Steel, Springville, Va.

Concrete Deck Contractor: Manning Squires, Batavia, N.Y.

HVAC/Plumbing Contractor: John W. Danforth Co., Tonawanda, N.Y.

Electrical Contractors: Ferguson Electric Construction, Buffalo.; Simplex Grinnell, Williamsville, N.Y.; and Morris-Collins Inc., Auburn, N.Y.