



Home for Healthcare Training

New facility brings health career & technology instruction to Tri-C Eastern Campus

By John Elliott | Photos by Mort Tucker

Tri-C's Eastern Campus in Highland Hills took a big step forward in meeting the needs of Northeast Ohio's expanding health care industry with an educational building dedicated to some highly specialized disciplines. The 61,500-square-foot Health Careers & Technology Building provides nursing, massage therapy, physician assistant, physical and occupational therapy, medical assisting, health information management training and pharmacy technician education, as well as biological sciences.

Built on a hill on the southern end of the campus, the \$20.5 million, steel-frame building features partially cantilevered floors, a brick and limestone exterior and extensive curtainwall, allowing natural light throughout the interior.

The building is expected to achieve LEED (Leadership in Energy and Environmental Design) Gold rating. These sustainable design elements include an elevated cistern for rainwater harvesting and serve as an alternative to conventional landscaping irrigation methods, dual-flush toilets for water conservation,

high-efficiency HVAC systems, and additional energy cost savings by way of foam insulation and fluid applied air barriers on the building's envelope which act as a rubber band to tighten and resist infiltration of cold air.

With state-of-the-art laboratories, the building marks Tri-C's first dedicated Eastern Campus facility for its medical disciplines, bringing together programming from several locations and buildings.

Making the center come to completion this spring from the master plan kickoff in January 2009 required

an aggressive construction schedule, notes Doug Myers, Tri-C's director of project management.

"It was a concerted effort for everyone," observes Paul Stimac, LEED AP and project manager for Cleveland-based Ozanne Construction Co., the construction manager for the project.

Dedicated to training

The building, with its bright interior spaces, has a hospital-like aura, but for the expansive spaces designed to facilitate training. Many of the training areas have hospital beds with patient





GUIDING INSIDE On each floor, classroom and lab entrances are marked in the hallways by aqua-colored, wood lattice canopies (opposite page). “Most architecture relates to an entrance,” notes Doug Myers, Tri-C director of project management. Throughout, an abundance of windows (above) provide views outside, helping users to orient themselves within the building.

mannequins and state-of-the-art hospital equipment.

Tempering the educational theme is a sense of space. Many spaces along the main floor offer expansive views of I-271 and Route 422.

The design is intended to be contextual to the rest of the eastern campus, which opened in 1971.

“It is sympathetic to and coordinates very well with the other buildings,” observes Thomas Stecky, Tri-C’s executive director of capital and construction.

Built on a former brownfield site, the structure has two full floors while the ground level floor is smaller and contains the mechanical room, some classrooms and a study area.

Special “vibration dampeners” minimize typical vibrations from normal building systems to ensure the accuracy of results from analytical weights and microscopes. Fortunately, the high quality of the ground soil did not

require any special soil stabilization, notes Myers.

The new building has several rain gardens that are designed to detain and filter storm water and reduce runoff water. Permeable site pavers and a partial green roof garden also contribute to water quality and minimize runoff water.

The green roof is accessed through the second floor atrium, and it allows students to see firsthand some of the physical sciences taught in the classrooms inside the building.

A group of Tri-C’s landscape design students have designed an outdoor education area that may be added in the future.

Plant science students were involved in flora selection to minimize water needs.

“The building with its green roof and spaces offers great potential out there for our students from different disciplines to collaborate,” says Ross Santell, Ph.D., R.D., the associate dean

of health careers and sciences for Tri-C’s Eastern Campus.

Two-story atrium

A two-story atrium and clerestory daylighting illuminates all the floors.

“The [atrium] spine is a real key element in the design,” says Randy Doi, project manager for San Francisco, California-based URS Corporation Design, which served as architect, structural engineer, mechanical/electrical/plumbing engineer and landscape designer for the building. “It’s really the heart of the building.”

Doi notes that the limestone relates to Corporate College East, which is located immediately south on Richmond Road, while the brick fits in with the existing campus. The white exterior bands relate to the student services building, which sits next door.

There are both high and low windows on all the floors to maximize natural light penetration into the rooms.



EQUIPPED FOR INSTRUCTION Labs (top) are outfitted with video screens, marker boards and specialized lab equipment, such as digital microscopes with cameras that can project images onto the wall. A nurses area (bottom) on the main floor has 10 beds with mannequin patients. Nearby are separate nurse instruction rooms with a bed and seating for group instruction.

“The new building is diverging from the idea of the existing buildings, which is inward looking,” Doi says. “They very much wanted a [symbol of] ‘reaching out’ to the community.”

Trying to accommodate the instructional needs of such specialized disciplines was a challenge, Doi notes.

Inviting environment

Tri-C wanted to include some social spaces in the building to encourage communication. “We wanted to give the students some collegial spaces to encourage them

to remain on campus between classes,” Stecky says. “It was something we strongly suggested that the architects mix into the design.”

The north wall in the carpeted hallway displays a prominent row of contemporary artwork. The wall is white, reflecting the natural light from the curtainwalls on all sides of the building.

The west end on the top floor has a lounge with a view of the forest beyond the parking lot.

On each floor, classroom and lab entrances are marked in the hallways by

projecting, aqua-colored, wood lattice canopies. “You understand that most architecture relates to an entrance,” says Myers. It also serves a design function in addition to a wayfinding one; it breaks up the long white walls.

State-of-the-art labs

There are 24 labs in the building, which can accommodate up to 2,400 students over the course of the day. The science labs have sheet vinyl floors and are equipped with digital microscopes with cameras that can project images onto the wall, plus marker boards and pull-down video screens. All lab stations have power outlets, built-in sinks and fume hoods. Stepped ceilings accommodate daylighting. The labs also contain handicapped accessible lab stations.

A preparation room between paired labs stores chemicals and includes a sink, wood cabinets, fume hood, dishwasher, autoclave, ice maker and incubators for growing cells and bacteria.

A nurses’ area at the east end of the main floor has 10 beds in the clinical area with mannequin patients. There are separate nurse instruction rooms with a bed and an expanded seating area for group instruction.

A human patient simulator features an animated patient mannequin that mimics actual symptoms, moves and speaks, all controlled by an instructor operating a computer in a concealed observation area. The mannequin sits in a bed with bedside booms.

This room includes a tiered seating area for students to observe the care giving. A video screen allows students to also see projected images of the care activity.

The ground level floor, accessed by an open stairwell on the south side, has an entrance on the north side that links the building to the main campus. This floor also has the largest classroom on campus, seating 70, with two pull-down screens.

The building will also provide services to low income residents; patients will sign in at a clinic desk on the main floor.

Consolidating the health careers programs will create academic synergies within the new building. **P**