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- INSIDE THIS ISSUE:**
- › **BUILDING ENVELOPE**
  - › **RESIDENTIAL WINDOWS**
  - › **METAL ROOFING/CLADDING**
  - › **BATHTUBS & SHOWERS**
  - › **SCAFFOLD**
  - › **HARDWOOD FLOORING**
  - › **SOFTWARE FOR AEC**
  - › **MECHANICAL & HVAC SYSTEMS**

# Award

ARCHITECTURE | DESIGN | CONSTRUCTION

**NSDA  
ARCHITECTS**

**Raising  
The Bar**

# Building F Health Sciences Addition & Renovation - Humber College

by SUSAN PEDERSON

**“W**e’ve had cadavers in our labs since the 80s,” boasts Jason Powell, dean, School of Health Sciences at Humber College Institute of Technology & Advanced Learning. That may sound cringe-worthy to some, but for students of the funeral services program at Humber in Toronto, human

Brent Lodge, principal with Read Jones Christoffersen (RJC) Consulting Engineers, says the time crunch made it very difficult, but they were happy to rise to the challenge. “We now attract these kinds of jobs,” he says. “I was chosen because I was recommended by the architect on another job.”

the team was dedicated from the very beginning. We all knew there would be unknowns when constructing a vertical expansion project over a 1960s building. However, the entire team was ‘hands on’ when unforeseeable conditions were discovered,” says Walo. “Options were promptly provided to the College by the construction manager and design team, and decisions were made in a timely manner to avoid any potential schedule delays.”

In order to meet the aggressive schedule dates, the structural steel was pre-tendered by the College and assigned to Eastern Construction upon award. During the design period, the design team and construction manager met with the steel contractor on a weekly basis to review, markup and approve shop drawings.

“These face-to-face meetings significantly reduced the shop drawing review process timeframe and facilitated a collaborative approach which enabled this critical path deliverable to be completed within the project milestones,” comments Walo.

Jay Levine, principal with NXL Architects – who completed the fourth floor laboratory fit out – says the project was also challenging because of the nature of the funeral services program: “The program that is running in this space utilizes solvents and chemicals, which of course involves building and venting codes, but our design also needed to incorporate sensitivities around respect and security in dealing with human bodies.”

Levine adds, “Carol Anderson from Humber can take credit for being fair, decisive and knowledgeable. She’s a pleasure to work with, and her approach keeps you energized.” He also gives kudos to the design team and Eastern Construction for making it easy to stay engaged and excited about the project. “I walked into the cosmetology lab and was completely blown away by the space and the layout, which is unusual when you’ve been involved throughout the process.”

cadavers are an important part of one of the most comprehensive and well-respected programs in Canada. A vertical addition to Humber’s School of Health Sciences building just took the program from leading edge, to state-of-the-art.

“They are getting the hands-on experience here that would not be available to them even at the university level,” explains Powell. “This expansion means we now have state-of-the-art labs that mimic 21st century industry facilities. Graduates of our funeral services program will be preferred employees.”

The two-storey (and mechanical penthouse) addition provides approximately 38,000 square feet of additional classroom and laboratory space. The original building – built in 1969 with a structural steel frame, 80-foot-spanning and 48-inch-deep precast tees in the central portion supported by one-storey steel trusses spanning 80 feet in the other direction – was built to accommodate an addition, as need arose and budget permitted. “It’s a dream coming true,” notes Powell, himself a former student of Humber.

A dream coming true, maybe, but on a nightmare timeline. Most of the project had to be constructed over the short three month College summer holiday shutdown.

Structural steel construction was the right choice for the new build, because of the load capacity of the existing structure and to accommodate the long spans. Open web steel joists were erected quickly and have openings to accommodate the main mechanical ducts.

“Being that it was an existing building, we had limited access to see it and verify that it was built the way the plans said it was built, and how to approach it,” adds Lodge.

The main surprises were an existing pit and one of the existing footings. A pleasant surprise for everyone involved in the project was the burgeoning spirit of camaraderie throughout the process.

“Throughout we felt a strong connection within the entire team, and the Eastern Construction team,” says Lodge. “We all helped each other and when they had some ideas, we were able to incorporate them where we could. We were sending the architects sketches and they were getting back to us with suggestions. With this fast-paced approach, if you don’t have that way of working together, the project could never be this successful.”

Stephen Walo, senior project manager, Southern Ontario, MHPM Project Managers Inc. agrees. “Everyone on



**LOCATION**  
205 Humber College Blvd., Toronto, Ontario

**OWNER/DEVELOPER**  
Humber College

**PROJECT MANAGER**  
MHPM Project Managers Inc.

**ARCHITECTS**  
Montgomery Sisam Architects Inc. / NXL Architects (laboratory/design)

**DESIGN-BUILD CONTRACTOR**  
Eastern Construction Co. Ltd.

**STRUCTURAL CONSULTANT**  
Read Jones Christoffersen Consulting Engineers

**MECHANICAL/ELECTRICAL CONSULTANT**  
Smith + Andersen

**TOTAL SIZE**  
38,000 square feet

**TOTAL COST**  
\$21.4 million

Daniel Ling, principal with Montgomery Sisam Architects Inc., says it was the existing relationships with Humber, Eastern and the design team that allowed everyone to hit the ground running and solve problems collaboratively.

“During the most intense period, our structural engineer, construction manager and other design team members ‘camped out’ at the steel fabricator’s shop, co-ordinating the design and fabrication drawings with site conditions,” he says.

In order to minimize the disturbance to the occupants below, and to the adjacent daycare, disruptive activities such as grinding, demolition and slab drilling were scheduled around the classroom and childcare schedules. In fact, the daycare kids were sent to an unusual destination during construction – the bar.

“We moved the childcare centre into the bar temporarily,” laughs Powell. “We had to be creative in how we concealed draft handles and that sort of thing, but we didn’t have one complaint.”

Nor are there any complaints with the beautiful new structure so far. Ling says his favourite part of the project is “a very nice play of light and shadow created by the geometry of frit on the glass and the truss structure around the perimeter.”

Ling adds, “These spaces such as the classrooms are quite simple at first glance, but there is depth to the space, throughout the day the quality of space changes along with light. It was a very aggressive and very complex build, and it takes everybody working together to make it a success. It starts with articulating a very clear vision, and keeping the student front and centre throughout the process.” **A**

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October 2015

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**Award**  
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Proud to work with  
Humber College in  
the redevelopment  
of the North Campus

**MontgomerySisam**  
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