

Ryerson Centre for Urban Innovation

The Centre for Urban Innovation is a new facility where science research labs, fabrication, incubation, assembly spaces and commercial spaces come together to create real world applications for urgent urban infrastructure issues. The Centre supports researchers and innovators with strong industry links to alternative energy, water management, food production, body metrics, human health, data analytics and urban infrastructure. State-of-the-art energy and water use systems in the building also act as a living laboratory and object of study.

An addition to an existing heritage building, the project embodies the spirit of resilience and adaptive reuse by preserving the original 1880's structure and inserting two major, interconnected volumes that are three and five storeys in height, housing labs and a research facility. These purpose-built spaces allow for zones dedicated to wet and dry lab research as well as research fabrication, incubation and commercialization. Light-filled spaces include meeting rooms, lounge spaces, kitchenettes, and shared common areas to allow researchers from various departments to mingle, share ideas and encourage awareness and exchange. Reflecting the Centre's spirit of efficiency, clarity, and exchange, a central four-storey sky-lit atrium encloses and bridges the original heritage building to the new addition. Each tier of the new volume features floor-to-ceiling glazing, allowing dynamic views into its lab spaces from every angle. Stepped seating on the north side of the atrium not only connects users to the second level, but also serves as an active space for gathering, studying and industry presentations.

The materiality and details of the addition convey a light touch and draw from the innovative nature of the Centre. The new additions also maximize natural light where possible; using a curtainwall with a protruding profiled channel cap to add depth, texture and shadow, this allows the building's street face to distinguish itself on a residential street. It was necessary to insulate the existing heritage portion of the building using EIFS due to the required energy targets and heritage designation. The building previously was covered with stucco. Upon analysis it was determined that the stucco be completely removed and with it came removal of the existing weather barrier on the brick. Encapsulating the entire exterior brick thus became necessary for protection. EIFS was ideal as it lent itself well to preserving the form of the heritage elements while providing required energy performance targets.

The exterior cladding of the new additions also consists of aluminum expanded metal mesh; the contrast between the heritage building's stone cladding and the newly introduced metal panels allow users to get a hint of the interior modernization and programming within. As users make their way through the building, the aluminum metal mesh panels are strategically used as feature ceilings; providing a subtle stark sheen that helps reiterate the scientific nature of the facility.