The Goodes Hall west wing at Queen’s School of Business (QSB) in Kingston, Ontario, completes the original building, which incorporated the historic Victoria School.

The $40-million addition started in 2010 and was completed in September 2012. “Victoria School was a red brick building surrounded by the grey limestone of the Queen’s campus, meaning Goodes Hall would always be distinct from neighbouring buildings,” says Peter Berton, partner in charge of the project from The Ventin Group Ltd. (+VG), designers of the original building.

Limestone was not available locally, so Indiana limestone was quarried to meet the LEED standard of sourcing material within a 500-mile radius, according to general contractor Adam Salehi from the Atlas Corporation. Limestone tile in the atrium of the original building is complemented by polished concrete floors and tiered seating in the west wing. “We also introduced terracotta cladding on the piers in the commons that echo the brick piers of the east wing and tie into the warm red of Victoria School,” says Chris Hall, partner at +VG who worked with the project architect Nicole Crabtree. “Cherry wood screens and millwork accent the west wing and continue the material palette started a decade ago,” Hall says.

The 75,000-square-foot addition is seven levels and includes a 35,000-square-foot underground parking area connected by an underground tunnel to an existing parking lot across the street. “Connecting the tunnel presented some traffic control challenges, and there were other [challenges], including excavation into solid rock, limited access to a tight site, and many structural and design elements to coordinate with the architects and the university,” Salehi says.

The new parking area is partially covered by the lawn in the courtyard at the Union Street entrance. “Other ‘green roofs’ were introduced at the entry canopy and at the fifth level courtyard as amenity spaces and to reduce ‘heat island’ effect and assist with stormwater management,” Hall says. “These elements give us confidence that the project will meet LEED Silver standards.”
Other elements include natural daylight maximized in all work areas from skylights and light wells, low-flow plumbing fixtures, highly energy-efficient glazing systems, HVAC systems and lighting. “The HVAC equipment includes a very efficient variable speed drive magnetic bearing chiller and centralized VAV air handling systems,” says mechanical consultant Ross Brygadyr from The Mitchell Partnership Inc. “These are uniquely located in the air handling room between the parking garage and occupy space above utilizing the entire room as a return plenum to take advantage of building-wide diversity on the use of outdoor/ventilation air.”

The mechanical systems are connected between the two wings, as are the electrical systems with the feed coming from the original building, says Rod Wilkinson from Morrison Hershfield Ltd. “The existing fire alarm system had to be integrated with the new system, and the emergency power source had to be obtained from another facility and that involved considerable integration of the different system and monitoring of such,” Wilkinson says.

“The special features are lighting control in lecture halls and conference rooms together with the audio visual systems that allow remote learning capability and complete connectivity with the whole Goodes Hall complex.”

Six new state-of-the-art teaching facilities were built along with 51 new faculty offices, two 80-seat theatres and a large open-concept classroom for special events with furniture that can be configured for lectures or presentations.

The walls can be raised to enlarge the area as an event space that opens onto the commons. Running along the length of the glass wall is an exterior sunshade that projects outwards. This provides maximum sunlight during the winter and offers full shade to avoid the interior becoming overheated during the warmer months.

Welcoming in those warmer months is the outdoor space designed by the landscape architecture firm DTAH, responsible for all exterior work including the streetscapes along Frontenac Street and the fourth floor roof terrace.

The lawn and plaza on Union Street create a generous entrance forecourt, and provide a multi-purpose venue for campus events and the new full service coffee shop. “We chose materials, furnishings and plants that would look good all year round, but would be durable for easy maintenance by the university,” says DTAH partner Peter Fletcher Smith. “Using standard and unique design details, we wanted to knit the work into the larger campus, and yet reflect the particular character of the new building and its immediate context.”
The blending of different materials used on Victoria School and the new building was also unique. “The historic school consists of wood construction and load-bearing brick and stone walls. The new structure is built with today’s building materials to achieve a modern, cost-effective, state-of-the-art green building,” says structural consultant Domenic Fagotto, principal at Read Jones Christoffersen Ltd.

“The challenges of the programming included matching photos: David Whittaker the existing floor levels of the Victoria School with the exterior grades around the new building. These criteria, along with a tight budget, led to the decision to have different types of construction for the new building in order to provide a cost-effective solution.”

Another cost-saving measure was the use of hollowcore slab supported on structural steel construction for the upper floors. From the foundations to the ground floor level, reinforced concrete construction was used allowing the existing grades to match the contours of the structure.

“The expansion of Goodes Hall allows QSB to enhance and expand existing programs, accommodate new graduate programs, foster research excellence, and recruit the faculty needed to support growth,” says David Saunders, Dean at QSB. “It is an important element in our vision to be Canada’s premier business school and one of the world’s most innovative and influential.”

VG Architects is a full-service architectural firm offering new design, expansions and heritage restorations for cultural, educational, municipal, justice, healthcare, residential and recreational facilities. Our staff of 50 operates in four offices in Ontario, in Brantford, Kitchener, Toronto and Belleville.

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