

Experience. Innovation.

CASE STUDY
Parliament Hill | Ottawa, Ontario

Balancing Technology with Historical Integrity

The renovation of Parliament Hill's West Block was an \$863 million project that finally wrapped up in fall 2018, uniting the charm of a Victorian Gothic structure that was completed in 1865 with the technological advancements of 21st-century construction. During the renovations, architects looked at every conceivable angle to modernize the facility while also maintaining the building's historical integrity.

"The West Block was last renovated over 50 years ago," said Georges Drolet, a partner in EVOQ and an architectural historian. The firm formed a joint ventured partnership in 1995 with Architecture 49 to plan and design the West Block Rehabilitation Project. "In that time span, all the expectations and standards of operating and working in a parliamentary office building changed, from security concerns to communications networks, energy efficiency targets, hazardous materials management, universal accessibility standards, broadcasting and public engagement programs and so on."

One of the most fascinating and unique projects in the overhaul of West Block was a complete roof overhaul. A striking, self-supporting, curved glass roof stands ovetop the central courtyard, which will serve as the temporary home for the House of Commons.

The project by Seele included 2,485 square meters of triple-glazed glass, 938 tons of steelwork for roof and tree columns, 2,554 square meters of laylight glazing under the roof, and 1,813 square feet of open-grid flooring for a service catwalk at the roof level. The roofing project alone required more than two years of labor.

Several other roofing sections also required roof hatches to access attic space. Aluminum roof hatches with copper cladding and prime painted galvanized steel hatches were custom-made by The BILCO Company of Connecticut and were installed by Heather and Little and Covertite. The hatches were installed on flat roofs and even on some seriously sloped steeples.

"The hatches were a bit harder to install mostly due to the complexity of the design," said Brian Marshall, a Project Manager for Heather and Little. "They were installed on a sloping roof that was in a near vertical position."

Marshall said his team also installed fire-rated floor hatches to gain access to attics and mechanical space, and LadderUP® safety posts to help ensure safety for workers entering and exiting the roof hatches. They are also manufactured by BILCO.



Photo: ManikMati Photography



Photo: Heather + Little

Photo: Heather + Little

Perhaps the most essential task for architects and engineers in the renovation was overhauling the structure while remaining true to the historical

integrity of the building. Drolet said all interventions made on designated federal heritage buildings have to comply with a national document, the Standards and Guidelines for the Conservation of Historic Places in Canada. "Every part of the building that is historic has been carefully preserved and enhanced," Drolet said.

In essence, all of the teams involved in the project have weaved together the imperfect marriage of buildings designed in different centuries into one beautiful, harmonious, safe and technologically advanced structure.

"Each decision was analyzed, discussed and reviewed by dozens of professionals, specialists and project managers to make sure that the transformed West Block would meet the challenges of a 21st-century legislative function while celebrating its 19th-century origins," Drolet said. "I believe that globally this goal is achieved."

Keep up with the latest news from The BILCO Company by following us on Facebook and LinkedIn.

For over 90 years, The BILCO Company has been a building industry pioneer in the design and development of specialty access products. Over these years, the company has built a reputation among architects, and engineers for products that are unequalled in design and workmanship. BILCO – an ISO 9001 certified company – offers commercial and residential specialty access products. BILCO is a wholly owned subsidiary of AmesburyTruth, a division of Tyman Plc. For more information, visit www.bilco.com.



an AmesburyTruth company