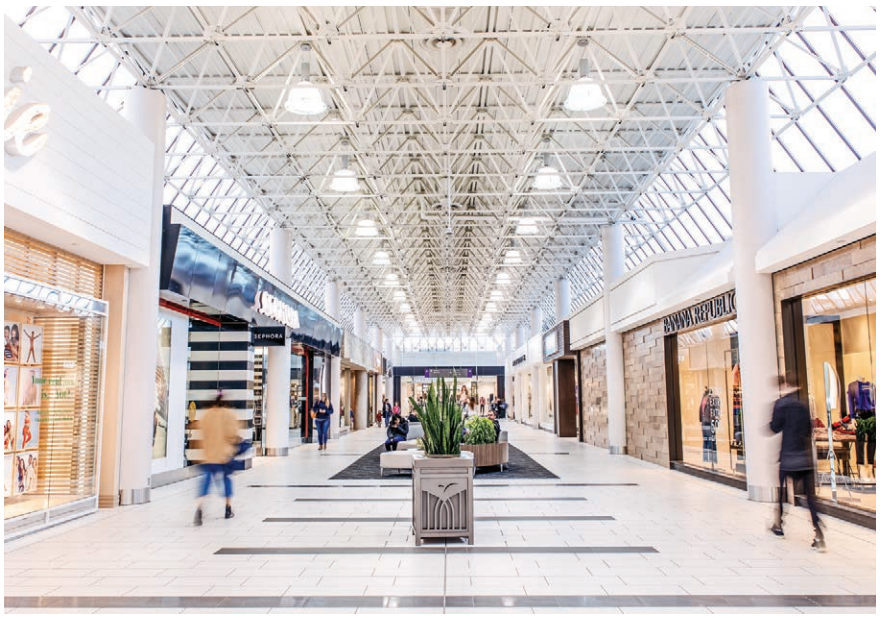
Mayfair Shopping Centre

by **ROBIN BRUNET**



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Inevitably all shopping malls must be upgraded, but the modernization of the 56-year-old enclosed Mayfair Shopping Centre in Victoria, B.C. came about primarily because additional space was required for new retailers and existing tenants – and because a refresh was in order.

Mayfair is one of Vancouver Island's largest regional shopping centres with a gross leasable area of 454,000 square feet – a figure that would increase by 100,000 square feet with the expansion. "There were challenges and advantages to the project,"says Graeme Silvera, VP development, retail for owners Ivanhoe Cambridge. "An example of the latter was the fact that the existing facility already had terrific amounts of natural light thanks to skylights and windows. As for challenges, the main one was knitting together the existing mall with the new additions."

Abbarch Architecture Inc. was retained to design the $72-million upgrade, and early on it was decided that Mayfair's most noticeable exterior change would take the form of a three-storey extension along Douglas Street as well as a 200-foot frontage along Finlayson Street.

Abbarch came up with a deceptively simple solution of matching the mall additions to the existing structure by creating new flooring throughout the entire complex, and Silvera explains the reasoning behind this decision: "Shoppers in malls tend to look down constantly or at least ahead, simply because this facilitates navigating among so many other people. So the flooring became our major solution, and it enabled us to avoid the time and expense of designing a fancy new ceiling – which would have been wasteful."

Bonifacio Enriquez, project manager for PCL Constructors Westcoast Inc., notes that the project broke ground on December 2016 with sequential closure of three main entrances and temporary new entrances built to maintain access and exiting to the shopping centre, while 172 cast-in-place concrete caissons were installed at and below grade. This was followed by a multitude of reinforced pile caps and grade beams in preparation for the concrete precast structure.

Douglas Bain, project engineer for RJC Engineers, says, "The existing mall had undergone several major expansions and modifications, and it required further changes to facilitate the new layout. This included the relocation and upgrading of three existing shear walls, removal and reconstruction of three stairwells, and the tying of a 1989 expansion to a portion of the new addition to meet the current seismic code."

Another major component of the expansion was parking: to provide more parking spaces, precast beams had to be cantilevered by PCL over the existing building on the Douglas Street side and an additional level added to the south east corner of the existing mall. "As the external wall profile of the existing mall stepped in and out, it led to some interesting geometry, particularly in maintaining seismic isolation while providing continuity of new vehicle ramps from the existing rooftop parking," says Bain.

PCL adhered to stringent project specifications, while allowing the mall to stay operational during the entire duration of construction, and some construction activities were re-sequenced to accommodate the busy holiday shopping season. The new facade on Douglas Street was made of

PHOTOGRAPHY COURTESY IVANHOE CAMBRIDGE

architectural metal panels, glass storefronts, EIFS, and architectural precast concrete panels, built off-site and then trucked in. "We also used cast-in-place concrete for some structural components such as shear walls, pile caps, grade beams, parkade ramps and vertical circulation cores, which were completed by PCL," says Enriquez.

Construction was facilitated with the help of Surespan Structures Ltd., known for producing large precast and prestressed permanent bridges as well as architectural and structural concrete panels. "We completed the architectural precast facade for Mayfair," says Surespan general manager Matt Delange. "It is hung from the structural precast and we had to design a special steel frame to support it. The 20 panels are each eight by 20 feet, and each weigh about 21,000 pounds."

Jarrod Yip, project manager at AME Consulting Group Ltd., points out that the expanded part of the mall was designed and built to LEED standards, "so for the mechanics we used ASHRAE as a baseline.

"We chose stand-alone air handling units for each tenant space – with the largest tenant, Indigo, having three such units. We tied in the common areas to an existing condenser water and heat pump system and large rooftop air-handling unit, both of which were adjusted to accommodate the increased people traffic of the expanded mall. We also ensured that our refrigerants would be environmentally friendly, hence the use of R410A."

As of May, the project was finished, and only three units remained to be leased. "Decades from now this site will become a mixed-use town centre, and we are prepared for that to a degree by in-filling the old surface parking lot," says Silvera. "But for now, Mayfair will continue to be an extremely popular shopping hub. This was a great experience for us, and we couldn't be happier with the outcome." **A**

LOCATION
3147 Douglas Street, Victoria, B.C.

OWNER/DEVELOPER
Ivanhoe Cambridge

ARCHITECT
ABBARCH Architecture Inc.

DESIGN ARCHITECT
Designcorp International

CONSTRUCTION MANAGER
PCL Constructors Westcoast Inc.

STRUCTURAL CONSULTANT
RJC Engineers

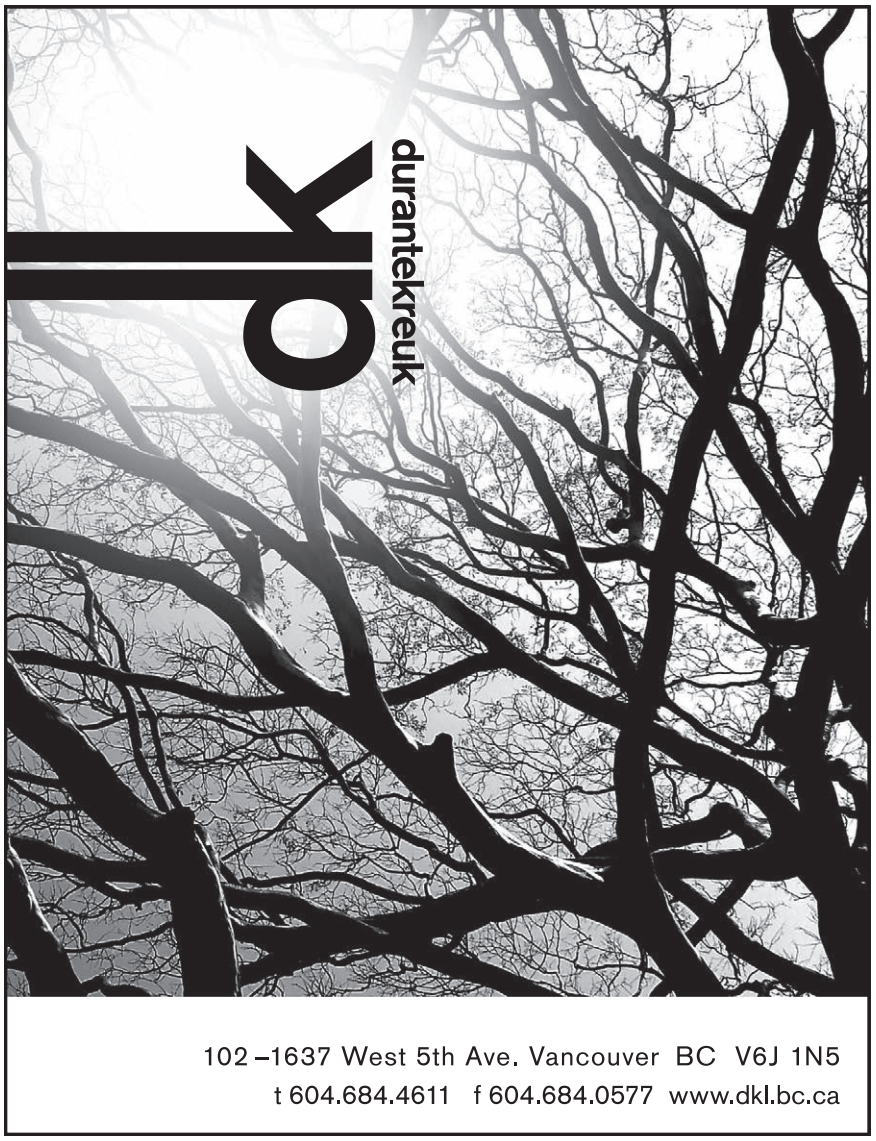
MECHANICAL CONSULTANT
AME Consulting Group

ELECTRICAL CONSULTANT
WSP Canada Inc.

LANDSCAPE ARCHITECT
Durante Kreuk

TOTAL SIZE
544,000 square feet
(including 100,000 square feet of new retail space)

TOTAL COST
$72 million



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