



AN INGENUOUS RESTORATION

For anyone walking along Du Musée Avenue these days, the impact of the construction work for the new Claire and Marc Bourgie Pavilion is spectacular: an excavation some ten metres deep has closed off the street to traffic and offers a glimpse of the future underground gallery. The church, a heritage building from 1894, emptied and supported on piles for several months now, is gradually being transformed into the long awaited Pavilion of Canadian Art and the new concert hall.

The ingenuity of the project's designers can be seen in the complexity of the challenges they have tackled and their implementation of the solutions. Here are a few examples:

SUPPORTING THE CHURCH

To achieve the necessary height for a gallery, the church basement had to be dug out to a depth of about two metres. In order to do this, the northern half of the church, the wall of the Sherbrooke Street façade and the rood-screen were temporarily supported on piles (steel tubes embedded in the rock). It was then possible to safely demolish the existing ground floor, the basement and the foundations of the church. The church, which had not shifted, was then set down again on the new supports.

CONSTRUCTION OF THE UNDERGROUND GALLERY

What was going to be just an access tunnel to the new pavilion has evolved into a new underground gallery. The excavation into the rock under the street was hampered by a century-old brick culvert and drain, which had to be diverted and later replaced when the work was done. The excavation and concreting of the gallery will be carried out carefully in view of these obstacles. The concrete slab of the gallery ceiling will be almost one metre thick to bear the load of the backfill and the heavy trucks on Du Musée Avenue.

MARBLE

The marble for the cladding of the new pavilion will come from the same Vermont quarry as the stone used for the Hornstein (1912) and Desmarais (1991) Pavilions. The slabs will be installed so that the cloud patterns on the marble will create a consistent effect on the outside walls of the pavilion. An overall cleaning of the outside stone walls of the building that will become the concert hall will make them look like new.

POWER

The new pavilion's consumption of electricity and heating will represent only seventy-five percent of the cost of heating and lighting the former church.

This substantial saving on power will be achieved by taking advantage of the unused energy capacity of the Hornstein and Desmarais pavilions. Conduits under Du Musée Avenue will carry the hot water, electricity and computer cables from the other buildings to the new pavilion, which will be provided with museum-standard air conditioning and ventilation.

LOGISTICS OF THE WORK

Another challenge was that of planning and implementing the project, given its complexity, time constraints, limited access and the noise of heavy construction in the heart of the downtown area. It was therefore decided to go ahead with the construction schedule and start the work before all the plans were completed, thus gaining the necessary flexibility to react to the unexpected when working on an existing building while adhering to the budget and timetable. The project was thus divided up into 265 design and construction activities to guarantee the completion of the project within the authorized budget, and we are on track for the inauguration of the new Claire and Marc Bourgie Pavilion of Canadian Art and the Bourgie Concert Hall in 2011.

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