

# CASE STUDY: CHUM (Centre hospitalier de l'Université de Montréal) CREATING AN ENDURING SUPER HOSPITAL IN MONTREAL



## CHUM (Centre hospitalier de l'Université de Montréal) Door Solutions in Healthcare

- ▶ The CHUM is the largest super hospital of its kind in North America
- ▶ Construction began December 2013; Phase construction completed September 2017
- ▶ Project budget: CAN \$1,641 billion
- ▶ Architects:
  - CannonDesign
  - NEUF architect(e)s
- ▶ Construction Manager: CSM (Collectif Santé Montréal)
- ▶ Joint venture between Obrascon Huarte Lain (OHL) (Spain) and Laing O'Rourke (London)
- ▶ Door supplier and installer: LMT Group
- ▶ Masonite Architectural (Baillargeon) produced and delivered over 6,000 WOOD DOORS for the CHUM project over a 24-month period



Masonite supplied over 6,000 wood doors for the CHUM project over a 24-month period.



### THE CHALLENGE

## Supply over 9,000 Doors, including 6,000 Wood Doors

The project's door supplier, LMT Group ("**LMT**"), realized the wood door manufacturer would need to produce and deliver more than 6,000 wood doors for the project over a 24-month period.

To put that in perspective, an average work year in Canada is 2,000 hours, that meaning that an average of 1.5 wood doors had to be constructed, finished, machined for hardware, and inspected every working hour for *two years straight* to meet the demand.

### THE SOLUTION

## Baillargeon by Masonite Architectural

LMT knew that few door manufacturers have the capacity to meet such high demands to not only complete the project on time, but provide high-quality, durable and beautiful wood doors.

LMT selected Baillargeon by Masonite Architectural ("**Baillargeon**") as the best choice to meet and exceed all the needs of the client, the project and the patients it would serve.

### THE RESULT

## Standardizing Production Across Network of Plants

To deliver on the large number of doors for the project, Baillargeon spread the door production across a network of plants.

Through a meticulous quality control process, the client received harmonized wood species, cuts, and finishes for every single door to achieve a consistent look throughout the award-winning hospital.

Additionally, the architect specified the veneer leaf assembly as a book match with a quarter-sliced cut, and the design called for a custom flush moulding to be designed especially for this project.

Many of the doors required complex, pre-machining for the door hardware. The door edges would get stainless-steel edge protection flush to the door edges. Doors with controlled access, for electric strike wiring required needed a clear path through the door panels.

### BENEFITS OF MASONITE ARCHITECTURAL DOORS:

- Extra heavy duty for high traffic areas
- Fire-rated, sound-rated, radiation-shielded and eco-friendly
- Veneer edges on top of the door to help maintain clean environments
- Expertly crafted to help create world-class environments





## THE RESULT

# Implementing Multiple Door Models

The project's door specifications were performance-based. Meaning the architect provided performance criteria and details for the doors.

Baillargeon ensured the hospital's doors met or exceeded the expected performance.

To meet the project's various conditions, the client received a range of our models and options.

The door models included:

- ▶ 5090-VE - 90-minute fire-rated heavy-duty doors with veneer edge
- ▶ AF45-VE - 45-minute fire-rated heavy-duty agrifiber doors with veneer edge
- ▶ 8300-ME - Particle core extra heavy-duty doors
- ▶ 8512-ME and 8516-ME - Lead-lined, extra heavy-duty doors for radiology exam rooms

## Contributing to Sustainability

All the door models used in the project contribute to the CHUM's LEED Silver goal.

The contributing options include:

- ▶ NAUF (No Added Urea Formaldehyde)
- ▶ FSC-Certified (Forest Stewardship Council)
- ▶ EPD (Environmental Product Declarations)
- ▶ Agrifiber
- ▶ Recycled Content

“

We are very proud to have been selected as a partner in this project. Knowing that our work has played a role in helping patients heal better and faster is core to our purpose at Masonite.

”

**Normand Deschenes**  
*Regional Sales Manager*  
Masonite Architectural Canada

Discover more benefits of specifying Masonite Architectural doors at

[masonitearchitectural.ca](http://masonitearchitectural.ca)



## THE RESULT

# Focusing on Details to Promote a Healing Environment

Baillargeon implemented many note-worthy details in the doors throughout the facility, that met the specifications and offer a healthier environment.

- ▶ Veneer edges on the top and bottom rails help prevent infiltration of microbial contaminants for patients and faculty.
- ▶ The factory-finish is resistant to bleach to stand up to frequent cleaning and disinfecting.

## Providing Peace of Mind

With Baillargeon doors, our clients have one less thing to worry about. The doors throughout their project have been tested and built to last.

CHUM knows their doors will stand up to many years of hard use because they've passed the Cycle Slam Endurance 1,000,000 heavy duty rating-cycling test.

We stand behind these doors, so we provide a Limited Lifetime Warranty the life of their installation.

## BACKGROUND

The University of Montreal Hospital Center (Centre hospitalier de l'Université de Montréal, or "CHUM") is a 3 million-square-foot medical center in Montreal, Québec, Canada. Construction began in December of 2013 and the hospital opened in September 2017. The CHUM is the largest super hospital of its kind in North America. It's a consolidation of three of Montréal's oldest hospitals: Hotel-Dieu de Montréal, Notre-Dame, and Saint-Luc.

The facility is three interconnected buildings sitting on 2-½ city blocks in downtown Montréal.

The clinical part of the medical center is over 12,000 rooms in total, including:

- ▶ 442 exam rooms
- ▶ 772 single-patient rooms
- ▶ 39 operating rooms
- ▶ 40 specialty outpatient clinics

The hospital can serve 345,000 ambulatory patients, 22,000 inpatients and 65,000 emergency patients every year. The organization employs over 10,000 clinicians and staff, plus 6,000 medical students and interns.

## CONCLUSION

# Complex Healthcare Projects Need More than a One-Door Solution

The doors used throughout your building play a central role in its success. Not only does each door play an aesthetic role. If chosen correctly, a door helps block out noise, stands up to abuse, and supports a germ-free environment.

We have the door solutions for your next healthcare facility to succeed.

For more information on this case study and other vertical market case studies, visit [masonitearchitectural.ca](http://masonitearchitectural.ca)

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MADS-18116\_v1