

Mt. Sinai Hospital Calms Wind Tunnel Effect with Revolving Doors



Sinai Health System is comprised of Mount Sinai Hospital, Joseph & Wolf Lebovic Health Complex; Bridgepoint Active Healthcare; Circle of Care; the Lunenfeld-Tanenbaum Research Institute, and is a full affiliate of the University of Toronto.

Toronto is known for its cold and blustery winter months. Prior to February 2016, Mt. Sinai Hospital employees, patients, and visitors often had to endure freezing wind tunnel conditions within a street level entrance corridor linking University and Murray Streets. Wind conditions could be so severe that employees using a smaller, employee-designated swinging entrance at times could not manually open that door.

“The revolving doors are the best solution, given our space and property limitations, and these entrances have cut our wind tunnel effect by 60-70%.”

Tony Khouri, Vice President, Facilities and Capital Development

The logo for BOON EDAM features a crown icon above the text "BOON EDAM" in a bold, white, sans-serif font. The background is a dark green triangle pointing upwards.The logo for "your entry experts" features a green circular icon with a white dot inside, followed by the text "your entry experts" in a lowercase, cursive font.

CASE STUDY



Challenge

Swinging and sliding doors at the hospital's two main entrance and the employee-only entrance were negatively impacted by severe wind conditions during cold winter months.

Solution

Automatic and manual revolving doors were installed, cutting down the wind tunnel effect by 60-70 percent, allowing the hospital to achieve their lobby comfort goals.

Benefits

- Comfortable lobby, free from gusts of wind
- Capable of handling high traffic with a fairly small footprint
- Able to accommodate carts, wheelchairs and hospital gurneys
- High quality construction

"On the hospital's main floor," explained Tony Khouri, Vice President, Facilities and Capital Development, "there is a long corridor between University and Murray Streets. Formerly, we had double sliding doors at each entrance, and because of the high foot traffic we had lots of problems with blasts of cold air running up and down the corridor." The corridor not only connects the two streets to the main entrance of the hospital, it also has retail and other shops located along its length.

The hospital engaged an expert about renovating the entrances, and the consultant recommended installing revolving doors to stop the infiltration of air. In a competitive bid process, Boon Edam revolving doors were selected.

Throughput was an issue, "Compared to other hospitals, we have a high number of users for these entrances, averaging 1000 per hour," said Khouri. Mt. Sinai installed a 16' diameter, dual-wing Duotour at Murray St., the larger of the two main entrances. This entrance is more accessible for patients arriving or leaving by car, and can accommodate wheel chairs and patients on stretchers. The smaller entrance, University St., is accessed up a flight of stairs and has been fitted with a 12' diameter, two-wing Duotour. Both entrances also maintain one set of push-button activated sliding doors

alongside the revolving doors to conform with the Ontario Disabilities Act and for emergency egress. A third, 8' diameter, four-wing, BoonAssist TQ manual revolving door is installed at the employee entrance, thereby eliminating the "stuck door" problem when it was a manual swinging door.

The Boon Edam Duotour is a high capacity, automatic revolving door. When an entry needs to channel the flow of visitors in high numbers at peak times, or those accompanied by carts, wheelchairs or hospital gurneys, the Duotour two-wing automatic revolving door is often the solution. Due to the relatively large size of its two compartments compared to 3- or 4-wing doors, the Duotour can channel a high capacity of traffic while having a fairly small footprint.

"We try to monitor the sliding door use as much as possible, but we still have some gusting issues," said Khouri. The revolving doors are the best solution, given our space and property limitations, and these entrances have cut our wind tunnel effect by 60-70%. I believe that the revolving doors are the biggest factor in that improvement. The Boon Edam revolving doors are of good quality, they're superior to regular doors, and they are helping us achieve our entrance and comfort goals."

