



Case Study

Jewish Reconstructionist Congregation Evanston, IL

Door Fulfills Mission of Function and Flexibility for Synagogue

Structure Fulfills Mission of Congregation

When it came time to upgrade their synagogue, the Jewish Reconstructionist Congregation (JRC) in the north Chicago suburb off Evanston started from scratch and totally rebuilt. In pursuing the Jewish ideal of Tikkun Olam—repairing the world—the JRC board opted to tear down their existing building, rebuild and create a structure that would attain as the board put it, “the highest feasible level of LEED certification for green architecture.” LEED (Leadership in Energy and Environmental Design) is a rating system designed and administered by **U.S. Green Building Council** (USGBC) for evaluating environmentally sustainable construction. The building attained a LEED Platinum — the highest level of certification.

With a completed size of 31,600 sq ft, the \$8 million building is 50% larger than their previous facility.

As for energy saving features of the building they include:

- 47% of all the materials used in the building were manufactured regionally within 500 miles.
- The combination of energy saving features of the building is projected to save 45% on energy consumption compared to a conventional building.
- Energy Efficient Zoning System: Each room has a separate thermostat and variable air velocity box to deliver warm or cool air. A central computer program adjusts the HVAC system according to anticipated building use, on a room-by-room basis.
- Integrated into the HVAC system, each room has a CO2 sensor, which assures enough fresh air will be brought in to each area for a healthy oxygen level. The fresh air brought in through the system is filtered.

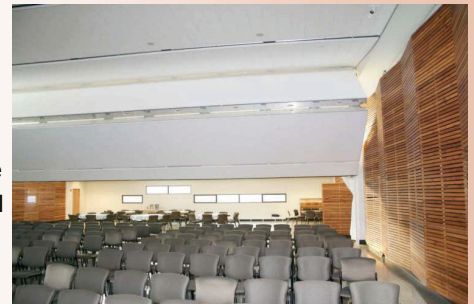
A 53 ft x 15 ft 6-inch x 6-inch thick Wilson Premier vertical bifolding door separates the sanctuary and the social area on the third floor allowing multiple use of the space.



The door sections off a third of the room so that the two areas can host functions that are social and sacred at the same time, and eventually open up to accommodate large groups. For large events, the divider is raised and enables seating for 600 people or a sit-down dinner for 250.

The project architect considered several approaches for room separation.

Michael Ross with the firm Ross Barney Architects could have went with conventional operable partitions or horizontal bifolding doors, and instead opted for the Wilson Premier Bi-



Folding door. “The space here is limited so raising the door panels into the ceiling was far more practical than parking them on each side and taking up precious floor area.”

Other than a smaller bi-fold they spec’ed at a University of Florida project, a large vertical bi-folding door has not typically been used for interior applications. “Essentially,” says Carol Ross Barney with the firm, “this kind of door is most often used on aircraft hangars,” but this technology is increasingly applied to commercial applications. She adds, “the bi-folding door turned out to be a lower cost alternative to operable partitions and it offers great sound separation.”

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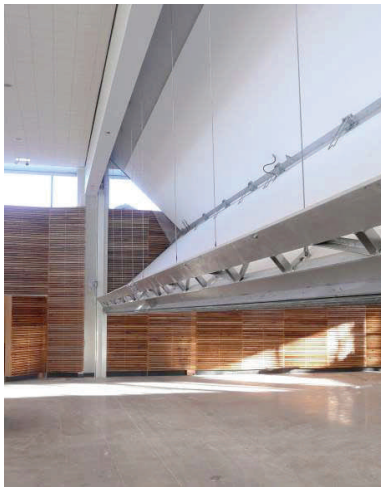


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In many instances, a service in the sanctuary can be followed by a meal in the social hall, and the mood during prayers could be punctuated by the sound of the set up crew moving chairs and plates.

once it reaches a certain height, it smoothly accelerates until at the top of its stroke, the door slows down and softly stops. The sanctuary does not have pews fastened to the floor. Rather they have movable chairs. With the fast door operation, they can quickly reconfigure their seating for the next event.



In conforming to the LEED criteria, for the improved Sound Transmission Coefficient there is batt insulation of recycled fiberglass, plus two inches of polypropylene foam and a layer of recycled gypsum board on either side within the six inch thick door's aluminum frame. As with all projects, the Premier's doorframe enables the use of virtually any kind of cladding to match the architect's imagination and the needs of the project. Wilson

doors has well engineered the Premier door to meet the requirements of the JRC Synagogue. The frame is made of ultra-strong aircraft grade aluminum tubing, and is 40% lighter than steel frame doors.

In order to conserve energy the conditioned air is confined to the lower seven feet of the sanctuary/social hall. From there up to the ceiling temperature is ambient. Ross points out that the Premier vertical bi-folding door fits in better with that strategy than other means of separation, enabling the building to control temperatures between the two areas based on room usage. According to Ross, "when the decision was made on dividing the room, and we had figured out how to store the horizontal sliding panels, it was determined they would have a negative effect on the air flow."

"That's why raising the door up to the ceiling made a lot of sense."

Another benefit is Premier door's Ascent AC-Drive and 2-button controller. The variable speed Ascent AC-Drive provides a very smooth, soft start and stop, minimizing wear on the motor and components, while significantly decreasing the opening and closing time of the door.

The door operation is a good fit for this type of application, opening and closing quietly. Initially the door operates slowly, but

The door has a bank of lights along the lower part of the sanctuary-side panel. When the door is raised and tucked up in the ceiling the lights illuminate the area between the social hall and sanctuary.



Archi-Tec™ Premier™ Door at a Glance

Architectural aluminum tubing used in the construction of the door. While tubing can be painted, most customers choose raw, mill finish for a clean, crisp look.

For the door's skin the sky's the limit. One of the appealing aspects of the Premier door is that Wilson does not provide the skin. Just the frame. The architect, end-user or contractor can think outside-the-box. Wilson has manufactured doors to accept glass, translucent plastic, brushed aluminum, stucco, wood facades, and composite concrete.

Attention to detail. With aesthetics playing a predominant roll, Wilson attends to every facet of the door to ensure a sharp, refined look. Special door kick-outs are fabricated and special locking mechanisms employed.

Top-mounted motor and drive mechanism. In many Archi-Tec applications there is the interest in "masking" the drive mechanism. Whether the reason is to hide the motor or strict adherence to aesthetic criteria, Wilson's ability to mount the drive mechanism on the building header conveniently and efficiently addresses this requirement.

What kind of controls do you like? Remote push-button? Keyed entry? Number pad? Swipe card? Wilson can do it all.

Variable-speed AC-Drive. Each door is driven by Wilson's Ascent™ variable-speed AC-Drive smoothly opening and closing the door for quiet and efficient operation.

Installation is as easy as 1-2-3. If the door panels have to be spliced, simple bolted together, modular construction allows for quick and easy installation; no field welding. Wilson's trucks deliver the doors with TLC and our driver stays to supervise the installation. This insures the product arrives without damage and is installed properly.