

high performance translucent building systems

Project Report

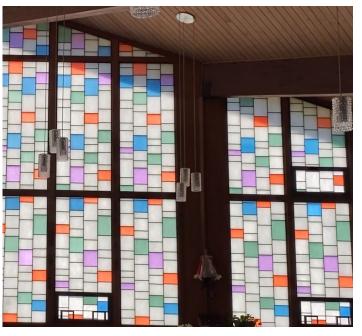
Our Lady of Fatima

Wilmington, VT, USA









Architect: Stevens & Associates



high performance translucent building systems

KALWALL SPECIFICATION:

Panel: 2.75" | 70 mm

Grid core: custom

Exterior FRP: crystal

Interior FRP: crystal

System finish: bronze #85

U-Value: .14 | .78 Wm2K

Solar Heat Gain Coefficient: .15

Visible Light Transmission: 14%

WHAT IS KALWALL?

A translucent, structural sandwich panel that provides:

Glare-free, balanced daylighting

Superior thermal performance

Energy + electricity saving

Low maintenance life cycle requirements

Safety + security through visual privacy

Durability + graffiti / vandal-resistance

Hurricane, explosion venting + blast rated options

Our Lady of Fatima, Wilmington, Vermont, USA

AFTER 60 YEARS, OUR LADY OF FATIMA GETS A FACELIFT AND ENERGY UPGRADE REPLACING ORIGINAL KALWALL TRANSLUCENT PANELS.

Built in 1964, Our Lady of Fatima, in Wilmington, VT is a Roman Catholic Church serving residents and visitors of southern Vermont. Kalwall's translucent daylighting panels played an integral part of the church's original design by delivering calming, serene and diffuse daylighting to create comfortable spaces for its occupants.

Many churches utilize stained glass, and Our Lady of Fatima chose to utilize a custom grid in combination with Kalwall's colored inserts to achieve the stained glass look while benefitting from superior thermal and energy performance compared to glass. Sixty years later, the church chose to again use Kalwall panels when it was time for a retrofit.

It's important to note that the original Kalwall panels installed were 60 years old. This is a true testament to the durability and structural performance of Kalwall's fiberglass reinforced panels that clearly stand the test of time – Especially given the notorious harsh winters of New England.

The new panels feature a custom grid and transparent colored insulation tailored to meet desired light transmittance, u-values and solar heat gain requirements. Being thermally efficient while aesthetically beautiful was the goal, and the upgraded panels will realize increased energy savings and lower HVAC costs, especially important in the cold-dominated climate of New England.

Below is an exterior elevation of the retrofit. The design features trapped heads on the upper panels as well as some operable sash for ventilation, also glazed with Kalwall.



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For unparalleled thermal performance in translucent daylighting, consider specifying Kalwall with **CABOT's Lumira®** aerogel insulation. Available in 2.75" (70 mm) panel formats up to: 4' x 12' (1200 mm x 3600 mm) and 5' x 10' (1500 mm x 3000 mm) maximum.

