

high performance translucent building systems

Project Report

Our Lady of Hope Mausoleum

Ancaster, Ontario, Canada







Photography: Architect

Architecture: Young + Wright / IBI Group Architects

KALWALL®

high performance translucent building systems

KALWALL SPECIFICATION:

Panel: 2.75" | 70 mm

Grid core: shoji

Exterior FRP: ice blue

Interior FRP: white

System finish: aluminum #79

U-Value: .18

Solar Heat Gain Coefficient: 0.12

Visible Light Transmission: 6%

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



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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.

Our Lady of Hope Mausoleum

The subtlety and spiritual strength of daylight can bring hope, honor and respect to a building when architects like Andrew Baczynski, Associate of Young + Wright / IBI Group Architects, rise to the challenge of taking a space to a higher level of consciousness. The design concept of Our Lady of Hope Mausoleum in Ancaster, Ontario, addresses the issues related to the mourning ceremony, the spiritual character of the space, and the relationship to the site. Imaginative use of the design flexibility and daylighting performance of Kalwall translucent building systems was specified "because of its unique translucent character with an appropriate quality of natural light transmitted for the mausoleum building," said Baczynski of Young + Wright / IBI Group.

"The plan of the Mausoleum is symmetrical with major elements located along the north axis," says Baczynski. The main concourse is daylighted with Kalwall's proprietary Kalcurve® structural translucent panel system. "The curved organic shape of the building evokes a feeling of the environment as well as the patron of the Mausoleum, Lady of Hope. The woman's soft curved body is reflected in the building shapes and the blue/white color dominates throughout the building. The light and delicate character of inner spaces flooded with soft light from the translucent roof refer to women's intimacy."

A cantilevered concrete canopy raised on both ends in a welcoming gesture highlights the front of the building. "Moving from the cantilevered entry canopy, the mourner passes though the Interior Gate along the main Passage towards the Chapel of Light, a major opening towards the cemetery space. The walls and ceiling of the passage are curved outward, creating a visual invitation toward the exterior garden, bringing the feeling of hope into mourning ceremonies. The dramatic break of the building along the central axis, horizontally and vertically along curved skylights, refer to the journey from death on earth to hope of life in God's kingdom. The flood of light at the Chapel and garden becomes part of the new life."

The structure of the building is entirely cast-in-place concrete with some areas of exposed concrete. Exterior cladding includes, Arriscraft stone, Indiana limestone and zinc. The interior materials are mainly marble and limestone in contrast with the translucent Kalwall fenestration.

"The building is designed to be energy-efficient and embody the principals of sustainability, including: a geothermal system, building envelope upgrades, energy-efficiency upgrades relating to mechanical systems and lighting controls, water-use reductions, interior air quality and sustainable materials," concluded Baczynski.

All Kalwall panels are a composite sandwich of fiberglass faces permanently bonded to an aluminum or aluminum/fiberglass internal grid core, infilled with translucent fiberglass or aerogel insulations; Kalwall is the most highly insulating structural translucent light-transmitting material in the world.

Helping to achieve the design and daylighting objectives of the space is testimony to Kalwall's 60-year history of innovation and spirit of working in partnership with the world's most innovative and renowned architects.

















