

Project Report

Spokane International Airport

Spokane, Washington, USA



Architect: Zeck Butler Architecture

Photos: Courtesy of Kilgore Tec Products

KALWALL®

high performance translucent building systems

KALWALL SPECIFICATION:

Panel: 2.75" | 70 mm

Grid core: shoji

Exterior FRP: crystal

Interior FRP: white

System finish: aluminium #79

U-Value: .14 | .78 Wm²K

Solar Heat Gain Coefficient: .17

Visible Light Transmission: 12%

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.

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THE POWER OF DAYLIGHT MODELING FOR AIRPORTS

The introduction of natural light is an obvious choice for most airport terminals, hangars and other aviation facilities. Not only does it build a symbolic connection to the sky, but today's daylighting solutions also provide numerous energy and structural performance benefits.

The best strategies for introducing daylight require complex analysis for an already complex market sector. Kalwall can help expedite that analysis through daylight modeling services. Daylight modeling removes the design mystery and reveals the pattern of daylight on a building using 3D simulation software. With it, users can compare options for both material selection and placement. The software can verify that spaces are meeting minimum required light levels and predict where there might be sources of glare.

When Spokane International Airport in Washington initiated an audit of its existing facilities, some of the daylighting areas were identified for improvement with passenger comfort as the driver. In multiple locations, thermally inefficient single lite glass windows were used where a view to the outside was not required, and a translucent solution was preferred to hide undesirable views. In addition, there is an atrium space that was allowing so much glare and direct beam sunlight that travelers would sometimes don their sunglasses just to pass through the area. The glare also had a negative impact on counter staff and security.

Kalwall's translucent sandwich panels provided a solution. The panels offer customizable insulation options, up to a .05 U-value, to ensure a high-performance envelope. The translucent nature of the panels diffuse daylight to prevent glare and can be unitized with glass when a view is needed.

A perfect daylighting strategy can be developed the first time around using daylight modeling. Visit Kalwall.com to learn more about our complimentary modeling services.



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