KALWALL®

high performance translucent building systems

Project Report

Northland Transit Center

Columbus, OH, USA

Architect: OHM Advisors

Wall Systems | Skyroof™ + Skylight Systems | Canopies + Walkways | Hurricane-Rated E-Series™ Windows

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KALWALL SPECIFICATION:

Panel: 2.75″ | 70 mm
Grid core: merrimack
Exterior FRP: white
Interior FRP: white
System finish: aluminum #79
U-Value: 0.53 | 2.57 Wm^2K
Solar Heat Gain Coefficient: 0.21
Visible Light Transmission: 19%

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.

Northland Transit Center, Columbus, OH USA

STRIKING A BALANCE BETWEEN SERVICE AND EFFICIENCY

When the Central Ohio Transit Authority (COTA) opened Columbus, Ohio's first rapid transit bus line in 2018, local riders could travel faster and reach popular city destinations previously inaccessible by bus. Known as CMAX, the line not only sets a standard for rapid transportation, but style and comfort as well.

The centerpiece of the CMAX project is the visually striking Northland Transit Center. The center includes an 8,950 square-foot (2,728 square-meter) overhead canopy system featuring Kalwall translucent sandwich panels. The panels are secured to a single-source, aluminum box beam superstructure designed by Kalwall's strategic partner Structures Unlimited.

The complex and extensive project required great coordination, including contracted electricians working right behind the crew from Structures Unlimited, to run wiring inside the aluminum box beam superstructure for both the lighting and security cameras. Working with a single-source manufacturer allowed the project manager to avoid down time.

Architects determined early on in the project design to utilize Kalwall's Merrimack grid pattern in order to create a unique look. Spacing the internal I-beams formed another distinguishing characteristic by casting shadows onto each other. Structures Unlimited was also able to design the canopy so that the bay spacing is an open 16 feet (4.9 meters), alternated with 8 feet (2.4 meters) bay spacing between columns where benches and wind screens were placed.

The canopy system offers superior structural integrity that stands up to hurricane-force winds, high snow loads and the most demanding code requirements. While another choice for a canopy may be glass, Kalwall panels offer a more effective solution because they not only meet the design requirements and offer protection from varying weather conditions, but are lighter (requiring less supporting structure) and easier to maintain. Soil and detritus are less obvious on Kalwall than on glass, and simple rainfall helps keep the panels clean. When further maintenance is required, maintenance staff can safely walk across the canopy's man-safe surface, which exceeds OSHA 1910.23 for fall through compliance.

Kalwall panels also eliminate shadows, hotspots, glare and the stark contrast of light and shade, all improving the experience for passengers below. The soft glow Kalwall gives off from artificial light often helps serve with wayfinding at night.

Kalwall and Structures Unlimited are favored by municipal projects for a multitude of reasons. Providing total responsibility from design through installation helps ensure that projects like the Northland Transit Center are completed on time and within budget.

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