

CPI DAYLIGHTING SOLUTIONS

Army Aviation Support Facility

Owner:

State of Michigan

Architect:

JE Jacobs Facilities Inc.

General Contractor:

Christman Company

CPI Rep:

Best Impressions Inc.



Army Aviation Support Facility specifies CPI Daylighting's Quadwall® translucent panels with RST - Removable Skin Technology

When choosing the right daylighting panels for their aircraft hangar, the U.S. Army Aviation Support Facility in Grand Ledge, MI, had two requirements: the panels would have to protect the facility from high wind loads and severe Midwest storms, while simultaneously providing the maximum amount of light transmission into the large hangar year round.

The solution was two, 8-ft. tall by 332-ft. long, Quadwall® wall lights, running the length of the building on the North and East sides. Specified to protect the hangar without requiring additional structural support or insulation, the 4-in.-thick panels were customized to carry a high wind load rating of 45 psf (significantly higher than the typical 25 psf) and feature the Quadwall's natural .23 U-value.

Clear matte over clear matte was chosen for the two panel system to achieve the desired 52% light transmission, which is over 70% more light transmission than the fiberglass alternative with the same insulation value.

The Quadwall system is an assembly of two independent translucent insulated panels, resulting in one integrated, high-performance daylighting system. Quadwall is the only system that can provide indefinite building envelope protection with its removable exterior panel feature. Scalable, the Quadwall system can be configured with

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additional insulation, Class A fire-rated roof assembly, sound reduction, dynamic shading, additional structural performance or even military forced entry resistance (chosen for the Army Aviation Support Facility). Joined by a mechanically interlocking connection, the dry-glazed Quadwall system eliminates the need for vulnerable adhesives, adding durability, as well as even light distribution with the system's patented tight-cell technology.

Quadwall was the ideal solution for the Army Aviation Support Facility, as the system was modified to meet the facility's required missile impact load and because of its ability to remove the exterior panel should it become damaged from the local wind tunnel or severe weather without compromising the interior panel's air and water tight fastening with the hangar.

From day one, the Quadwall system met the expectations of the Army Aviation's facility managers and architects, fulfilling both of the original design objectives and protecting those whose life work is to defend us.

CPI Daylighting pioneered the use of polycarbonate translucent panel systems for architectural use in 1980. Today, CPI continues to offer new and innovative daylighting products, including skylights, wall lights and canopies for any commercial, industrial and institutional application, with complete services from manufacturing to design and installation. CPI products enhance the sustainability of any high-performance building project through daylight transmission levels, optimized insulation values, thermal performance and recycled content.

