



THE SOLUTION SERIES

Recognizing *superior solutions* to construction and renovation challenges

Children's Hospital of Wisconsin Milwaukee, WI

Oscar J. Boldt Construction

Trainer Glass



CHALLENGE

Children's Hospital of Wisconsin, one of the nation's leading hospitals for children, desperately needed additional space so plans got underway for a 12-story, 425,000-square-foot expansion tower.

A main concern for the hospital was the design and installation of an exterior facade that would not allow moisture or condensation to form within the building. Any breakdown in the assemblage could allow warm air to enter the building and condense in the wall cavity, leading to deterioration of building envelope components, increased energy consumption, and a negative impact on the indoor air quality.

The bed-tower design incorporated curtain wall with six-story spans along with projections and recessions in the wall and a continuous vapor barrier. The areas where the dissimilar materials of the curtain wall and various adjacent wall assemblies connect are areas of dynamic movement and areas where multiple installers normally become involved. Maintaining control at these intersections to avoid moisture infiltration and the potential for mold growth was paramount.

SOLUTION

Proglaze® ETA Engineered Transition Assembly provided all the required solutions:

- a continuous building envelope solution that allowed flexibility where the curtain wall intersected with the precast and that would withstand the differences in air pressure on both sides of the wall;
- a single-source manufacturer for single-source accountability;
- a solution eliminating any guesswork and increased potential for risk;
- a solution that would afford increased design flexibility, allowing greater movement and deflection beyond what sealants can provide with varying geometries; and
- a durable solution that would last a long time.

Tremco's ExoAir™ 110 Self-Adhered Air & Vapor Barrier Membrane was used on the adjacent metal panel backup wall. Tremco's Silicone Rubber Extrusion was the primary air and vapor seal between the ExoAir and curtain wall system.

With this new approach to sustainable building envelope design, the project team has confidence that a significant step has been taken toward providing a higher standard in healthcare environments.

THE TREMCO SOLUTION

Proglaze® ETA Engineered Transition Assembly, a proven solution from a single-source to simplify the installation of transitions from window or curtain wall systems to wall assemblies.

The system includes:

- Extruded Aluminum Adaptor (EAA)
- Silicone Rubber Extrusions (SRE)
- Silicone Rubber Corners (SRC)

Spectrem® 1 Silicone Sealant, a high movement, ultra-low modulus, one-part, moisture-curing sealant with exceptional bonding ability for use as the compatible adhesive and wet seal.

ExoAir™ 110 Self-Adhered Air & Vapor Barrier Membrane, 36 mils (.90mm) of self-adhering SBS rubberized asphalt laminated to a 4 mil (.10mm) cross-laminated, high-density polyethylene film with a siliconized release liner.

TREMCO®