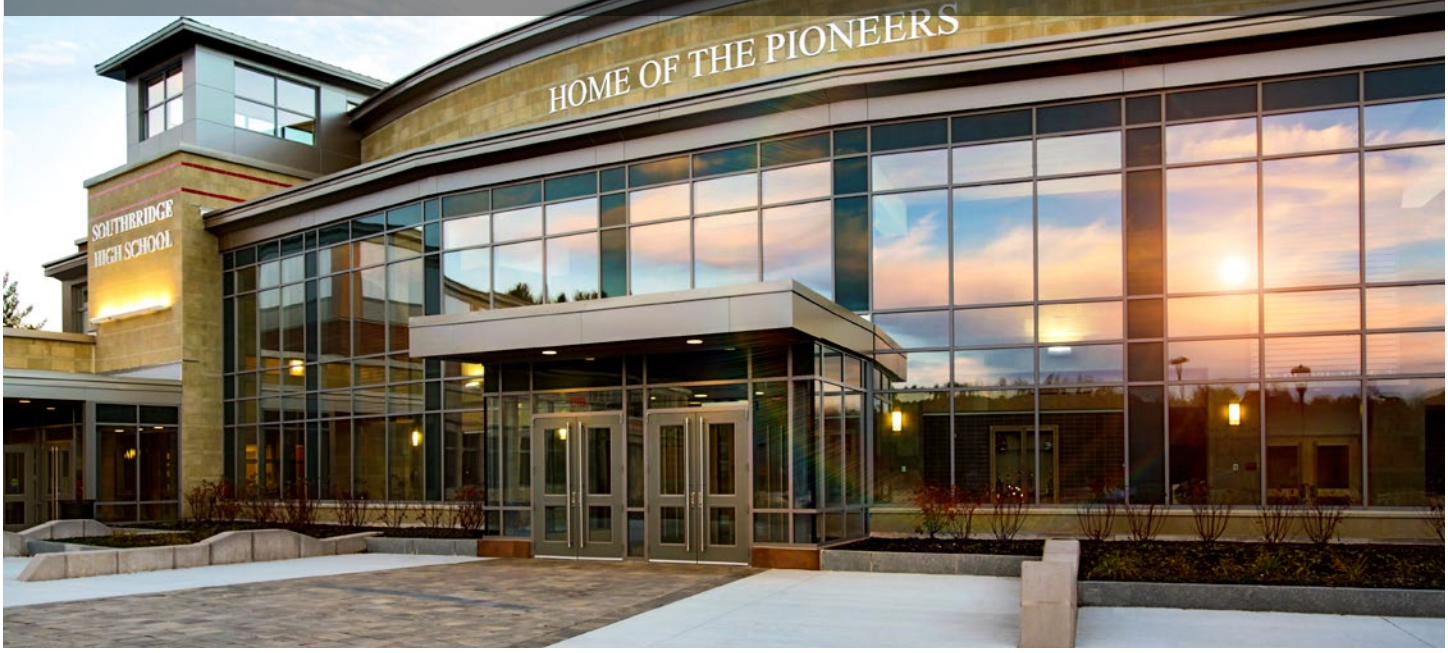
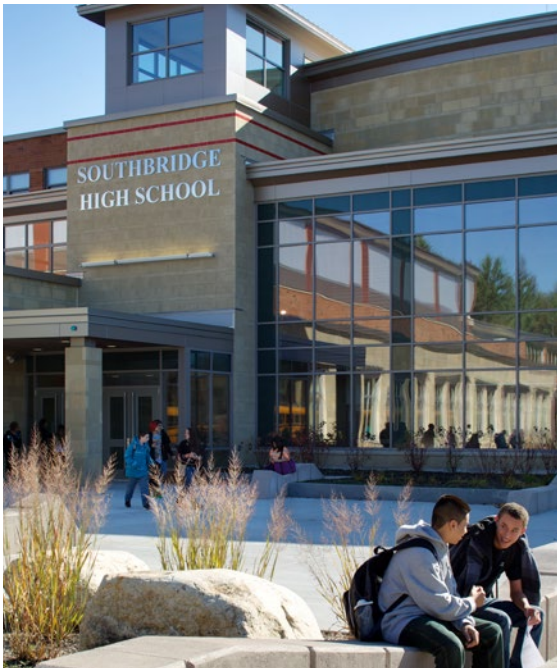
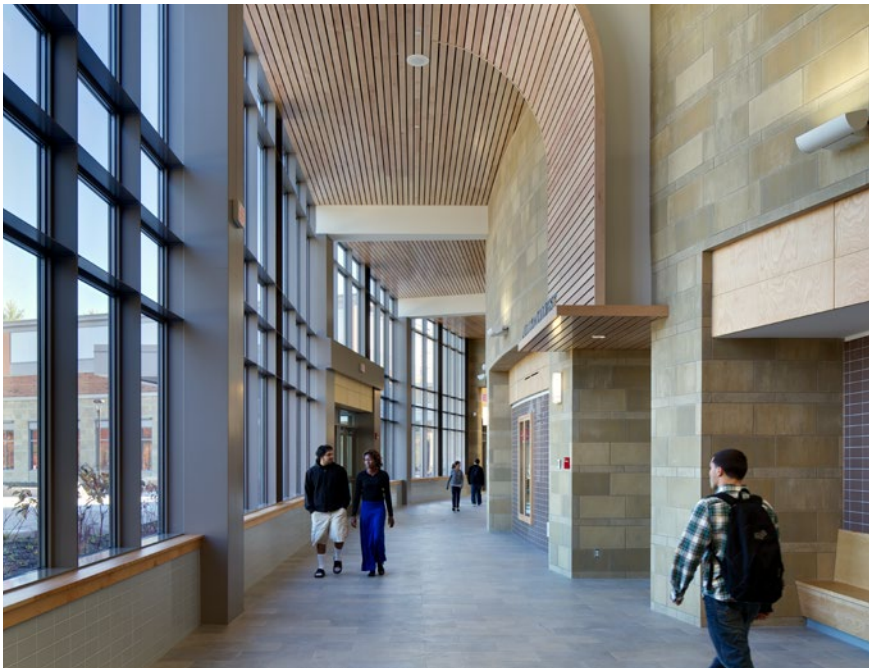
TGP ARCHITECTURAL
one source. many solutions.®

LEARNING BY DESIGN: STEEL CURTAIN WALL SYSTEM BLENDS TWO SCHOOL CAMPUSES

Project: Southbridge Middle-High School
Location: Southbridge, Massachusetts
Architect: Tappé Associates
Glazier: Lockheed Window Corp.
Product: SteelBuilt Curtainwall Infinity™ System







TGP ARCHITECTURAL
one source. many solutions.®

LEARNING BY DESIGN: STEEL CURTAIN WALL SYSTEM BLENDS TWO SCHOOL CAMPUSES

When land and budgets are tight, building a new school is often out of the question, no matter how outdated the existing facility. Fortunately, district officials for Mary E. Wells Junior High School and Southbridge High School in Southbridge, Massachusetts, found another solution. To preserve real estate and provide students with accommodations fit for the 21st century, they hired Tappé Associates to design a facility that would hold students from both schools. The result is the new Southbridge Middle-High School.

In the new facility, the middle school and high school classroom wings flank either side of the auditorium and media center. A sleek, glass-and-steel curtain wall joins them together, creating an efficient, shared space that bears little resemblance to the school's dilapidated predecessors.

To ensure the right gateway between the two school campuses, one consideration during the design phase was selecting a glass façade that connects students to each other and the outdoors while also meeting thermal performance requirements. The design team found their solution with the SteelBuilt Curtainwall Infinity™ System from Technical Glass Products (TGP).

The steel curtain wall system is approximately three times stronger than traditional aluminum curtain wall assemblies and can use as a back mullion nearly any type of structural member, from stainless steel to glulam beams. This enables greater free spans, larger areas of glass and reduced frame dimensions.

In the case of Southbridge Middle-High School, the SteelBuilt Curtainwall Infinity horizontal and vertical back members were combined with large panes of heat-mirror glass to create a 27 foot-tall expanse that provides students with ample daylight and visibility to the outdoors. The curtain wall's narrow T-profiles accentuate the school's open, minimalist look. A custom connection and anchoring system furthers this design aesthetic with unique countersunk fasteners that eliminate field welds in the vision area.

As a barrier to the elements, the SteelBuilt Curtainwall Infinity System also does more than bridge the two campuses. The 1½-inch heat-mirror glass and efficient steel frames help improve thermal performance. Specifically, the heat-mirror glass secures a thin, transparent low-e film between two sheets of glass. Compared to a conventional 1-inch, two-lite insulated glass unit, it provides improved thermal performance, allowing for a reduction in the steel framing size. This helps reduce the pathway for heat transfer, creating an overall system U-value of 0.26.

Today, the sleek, high-performing curtain wall system helps create a welcoming entrance full of daylight and movement for students and faculty. "We worked hand-in-hand with Southbridge officials to find a design and a solution that best meets the district's educational needs," said State Treasurer Steven Grossman, in a Massachusetts School Building Authority news release. "The construction of this new middle/high school will provide more than 1,000 students with a new, top-notch learning environment."

For more information on SteelBuilt Curtainwall Infinity products, along with TGP's other specialty architectural glass and framing, visit tgpamerica.com.