the challenge:

The new Dover High School is situated on the site of a former soybean farm. As a result, ABHA Architects wanted to retain some of the natural aspects of the site while providing a productive learning environment.

the solution:

To help reach its goal, the firm’s design team incorporated the look of wood into many of the school’s feature areas. In the school’s tall, light-filled library, for example, wood-like panels are installed on the wall and ceiling of a tiered, second floor lecture hall that overlooks the library and extends into it.

MetalWorks™ wall panels and MetalWorks Torsion Spring ceiling panels from Armstrong look like wood but are made from lightweight aluminum. All the panels feature a Reflections™ wood-look visual created by bonding a printed vinyl onto the aluminum.

Project architect, Carl Krienen, explains that MetalWorks panels were chosen over real wood because of their flexibility and economy. “The bowed nature of the lecture hall wall in combination with the radial nature of the sloped ceiling presented a real geometric challenge,” he states. “However, the MetalWorks panels proved to be a very effective system compared to wood, and made it possible for us to economically get the look we were trying to achieve.

“In addition, the Torsion Spring ceiling panels install in a concealed suspension system which allows them to butt up against each other,” Krienen continues. “This de-emphasized the joints and produced the consistent plane we wanted on both the wall and ceiling surfaces.”

The panels also provide downward accessibility to the plenum.

To meet the acoustical needs of the library, both the wall and ceiling panels are perforated and backed with a fiberglass infill, resulting in a system in which the panels absorb 90% of the sound that strikes them.

“Numerous studies have shown that an abundance of natural light and good acoustics are critical to learning,” Krienen states. “In the Dover library, we were able to accomplish both as well as create an environment that makes students feel welcome.”