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DESIGN IDEAS

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Cladding option is a game changer

When designing building exteriors, architects often default to complex and pricey architectural metal cladding treatments. That was before the new Target Field baseball stadium sported a canopy featuring exposed structural steel decking...

Target Field is the home of the Minnesota Twins, and a new-age canopy featuring exposed steel deck as its exterior architectural cladding. The game-changing design marks a breakaway from the customary use of high-end and high-cost architectural metal exteriors.



Exterior design is a whole new ballgame

Exterior cladding systems have long been associated with Division 7 of the Construction Specifications Institute. When Architectural firm Populous set out to create a unique canopy for their new Target Field stadium design, they decided to look outside of Division 7 for answers. The question became: Can the long-span capabilities of architectural deck offer a compelling cladding system option?

Form and function rise to the surface

"Populous was looking for an alternative, lower-cost cladding system," recalled Marty Williams, Design Development Manager for New Millennium Building Systems. "They were surprised to learn that an exposed structural steel deck system would address their aesthetic needs and more."

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Williams' collaboration with Populous on choosing the right steel building system, its design and installation, led to a novel approach to the cladding solution for Target Field: Division 5 long-span steel deck to be installed by a Division 7 metals installation crew.

A Versa-Dek® 2-in. deep steel decking system was recommended to optimize design and cost. An additional benefit was that the system would add to the structural integrity of the canopy.

The long-span steel decking sections were protected by a strippable film, enabling the MG McGrath team to position, strip and install each section without mars or scratches.



The compound curvature of the stadium's canopy was easily followed using flexible Versa-Dek® dovetail steel decking. Fasteners are concealed inside the decking's dovetail profile.



Custom-designed trim pieces feature slotted expansion joints to allow the sections to shift with Minnesota's extreme temperature variances.



Efficient installation is on Target

The Division 7 installation crew from MG McGrath Metals closely coordinated with Williams' team, which provided detailed drawings and scaled structural models to show how the specially designed trim sections would integrate with the dovetail steel decking system.

Installation was efficiently conducted using staged deliveries of the steel decking. Deck sections spanning up to 15-ft. were protected by a strippable film, enabling the MG McGrath team to position, strip and install each section without mars or scratches.

The trim pieces, brake formed by MG McGrath, used the same steel coil as the decking. The PVDF factory-finished, galvanized steel coil provided a 20-year protection rating to the finished system.

Game changing design possibilities

"Target Field is a cladding system design breakthrough," said Steve Sharp, Customer Service Supervisor at New Millennium's deck production facility in Memphis, Tennessee. "We're proud of the fact that we could show the Populous team how a Division 5 architectural steel deck system could help them achieve their design goals and for much less cost than a Division 7 architectural metals system."

Determine the right system for your project

New Millennium advises architects and structural engineers on today's expanded range of steel building system options. Recommendations are guided by the design intent of the architect and by the building owner's need to minimize total project costs over the life of the building.



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