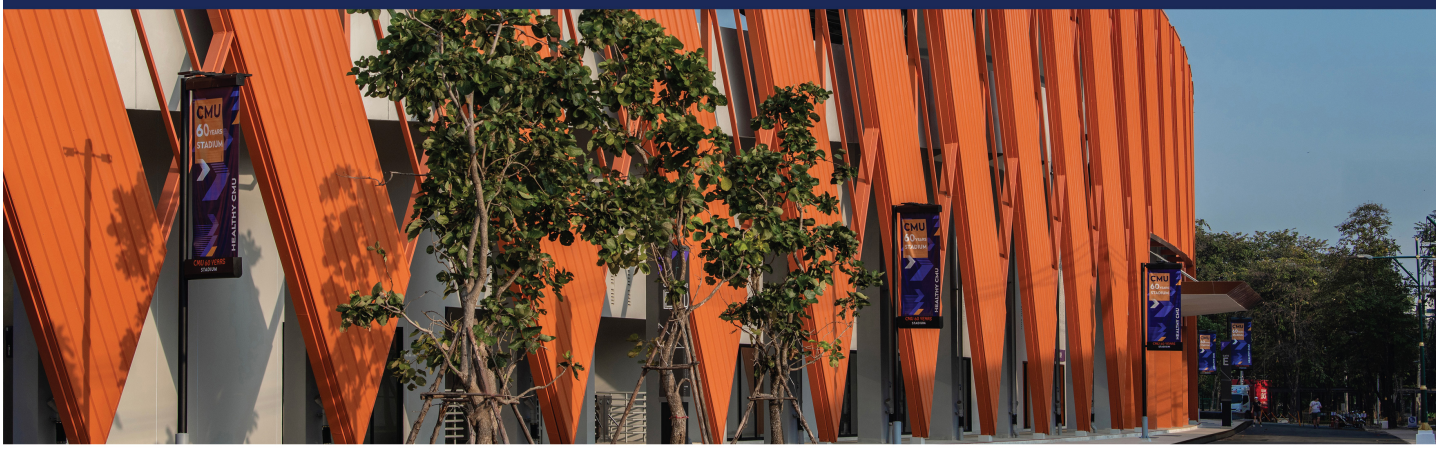
Steel Architectural Awards ASEAN 2026

Presented by BlueScope

CHIANG MAI UNIVERSITY MAIN STADIUM

Thailand



CHIANG MAI UNIVERSITY MAIN STADIUM (THONG KWAO STADIUM)

AREA
9,800 SQ.M.

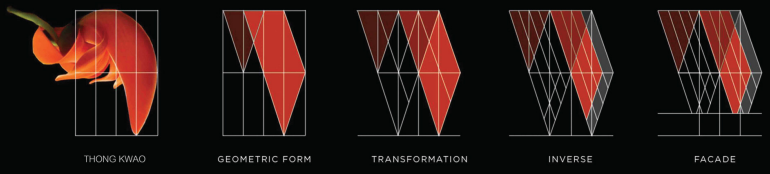
YEAR
2024

LOCATION
Chiang Mai, Thailand

MAIN MATERIALS :
FACADE :
METAL SHEET : TRIMDEK

ROOF :
METAL SHEET : ZIPDEK





FROM THE UNIVERSITY SYMBOL TO THE ICONIC LANDMARK

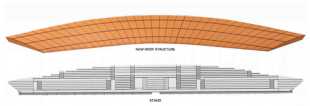
COATED STEEL DESIGN EXCELLENCE

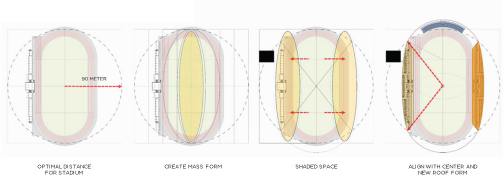
A key question for the new Central Stadium was how it could transcend its function as a venue for sports and recreation (serving students, staff, and the public) and also become a powerful symbol of CMU's unity, instill institutional pride in its students, convey the identity of Chiang Mai University, and serve as a new city landmark.

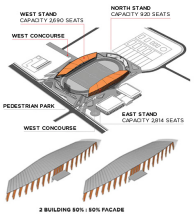
The answer formulated was that the architecture must clearly communicate the essence of CMU while adopting a beautiful and memorable form suitable for a sporting grandstand, creating a strong visual identity for the public and fostering pride within the university community.

The Flame Tree (Dok Thong Kwao), the university's official flower and namesake for a previous inter-university sports event held in Chiang Mai, was selected as the core symbolic element. The shape and color of the flower inspired the design. These organic forms were abstracted into geometric shapes that serve as the main facade elements, providing essential sun and rain protection for the seating areas.

NEW ROOF STRUCTURE DESIGN







EXISTING STADIUM CURRENT CAPACITY





Expressing the university's iconic identity The Flame Tree (Dok Thong Kwao), the university's official flower was selected as the core symbolic element.

Thong Kwao flower The shape and color of the flower inspired the design. The key diagram explains the abstraction of the Thong Kwao flower, reinterpreting its shape, colors, and configuration into structural geometry modules that serve as the main facade elements, providing essential sun and rain protection for the seating areas. The curved roofline, inspired by the gentle arc of the flower petals, is set against the backdrop of the undulating surrounding mountain ranges.

Overall curvature requires materials that are thin, long, and capable of being curved, and most importantly, can be easily installed and transported using industrial systems. Corrugated steel sheets and color coatings are therefore the primary choices considered in the design of this project.

OUTSTANDING COATED STEEL EXPRESSION

The concept from the proportions of the flower, Flame of the Forest , transform to the main element of the building, the roof. The idea is based on creating a shape derived from the site's boundaries, draw the axis toward the center, include the curves of the Flame of the Forest flower as the overall curve of the roof shape. The roof's materials required a corrugated profile that could create a parabolic curve, while the main structural columns and roof were based on the center of the field.
ZIPDEK met this design requirement, allowing for uneven corrugations on both sides of the sheet to create an overall roof shape where the corrugations converge toward the center of the field.
For the façade cladding, the use of triangular shapes is the main design language. TRIMDEK was chosen for the facade to facilitate quick installation and stay within the overall project budget.
Orange is the main color chosen by the design team to align with the core concept, and it is a color readily available in production, the Custard Orange.

CREATIVE IMPLEMENTATION / RESILIENT & TIMELESS DESIGN

Based on the project's core concept, materials with vibrant colors that directly communicate the orange color of the Flame of the Forest flower were needed. Glossy, coated materials were the most suitable choice, while also being budget-friendly and easy to maintain. Color-coated steel sheets were the primary choice, as they are durable for outdoor use and have a long lifespan. This sports field is expected to stand proudly alongside Chiang Mai University for another 50-100 years.

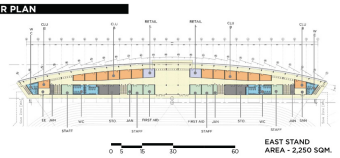
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CHIANG MAI UNIVERSITY MAIN STADIUM

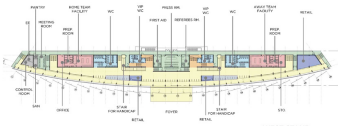
Thailand



1ST FLOOR PLAN

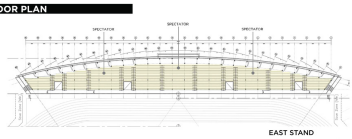


EAST STAND
AREA - 2,250 SQM.

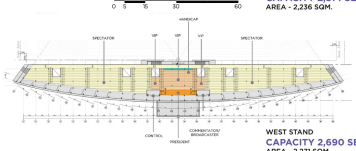


WEST STAND
AREA - 2,443 SQM.

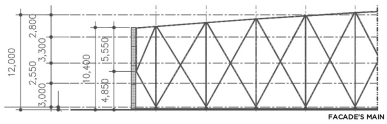
2ND FLOOR PLAN



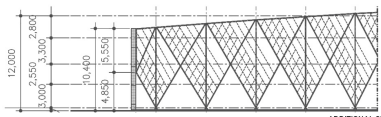
EAST STAND
CAPACITY 2,814 SEATS
AREA - 2,236 SQM.



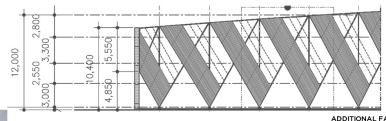
WEST STAND
CAPACITY 2,690 SEATS
AREA - 2,271 SQM.



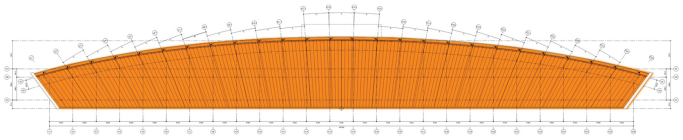
FACADE'S MAIN STRUCTURE FRAME



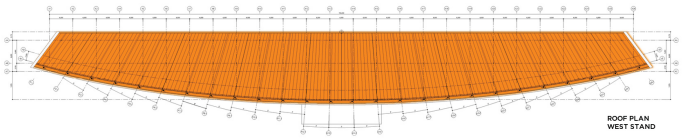
ADDITIONAL SUB-STRUCTURE



ADDITIONAL FACADE UNIT FORM

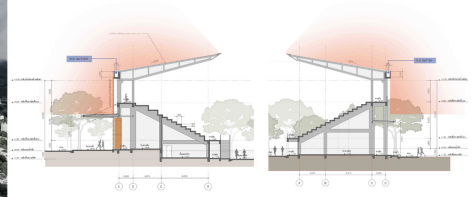


ROOF PLAN
EAST STAND



ROOF PLAN
WEST STAND





WEST BUILDING SECTION
EAST BUILDING SECTION

THE TRANSFORMATION OF THE UNIQUE FACADE DESIGN

VERSATILE USAGE

The entire exterior shell reflects the core concept of this project: the creation of a sheet material installation system that requires precise alignment of the corrugated material and strives for the most modular system possible.

The determination of the unit form must have a system that affects the structure, showcasing the steel frame for the building shell, which must all be interconnected. The creation of a main structure separated from the main roof structure, and the construction of a secondary structure with a triangular unit form that allows for easy and rapid installation of the TRIMDEK sheets, as well as the finishing of the material edges with sheet metal work. In architecture, there are few types of buildings whose facade can be truly perceived visually. With a building length exceeding 90 meters, this sports stadium clearly displays its story through its shell, from the orange color inspired by the Flame of the Forest flower to the proportions that are simplified according to the height of the roof structure, which are derived from the curves of the Flame of the Forest flower.





