

Year: 2018

Location: Japan

Program: Sports

Chiba Park Arena



The plan is to replace the aged bicycle racetrack in Chiba Park with a new indoor arena. The wooden dome raised on V-shaped columns from the reinforced concrete structure, takes its form from a cutout of an elliptical sphere with a long side of 120m and a short side of 105m. The dome is composed of a collection of Vierendeel arches. By changing the curvature of the upper and lower chords, the beam depth gradually gets larger from the top of the dome to the perimeter edges, giving a structurally rational frame.