

Beijing's National Stadium

Nicknamed the Bird's Nest for its interwoven steel structure, the \$450 million centrepiece of the Beijing Olympics is scheduled to host the opening and closing ceremonies, the athletics events and the men's football final

BIRD'S NEST

Height: 70m

Length: 330m

Width: 220m

Capacity: 80,000 permanent, 11,000 temporary

Seating area for heads of state

Solar panels

Installed on 12 main entrances, will supply 130kW of energy

OLYMPIC GREEN

Olympic Village

1km
0.6 miles

National Aquatics Centre

Stadium designed by Swiss architects Herzog & de Meuron

Luxury boxes

140 boxes on fourth level

Emergency access

Underground road allows vehicles to reach sports ground

Upper levels

Restaurants, shops, cinemas and health club

Underground level: Storage, training, office areas and car parking

MODULAR FIELD TURF SYSTEM

Around 6,500 turf trays of planted grass cover 7,400 sq. metres like floor tiles. Damaged trays can be easily replaced

Turf tray

117cm

30cm

STRUCTURE

Steel skeleton

40,000 tonnes of welded steel frames optimized to withstand earthquakes

24 main columns support structural load, each weighing 1,000 tonnes

ROOF

Outer membrane

40,000 sq. metres of single-ply **ETFE** (fluorocarbon-based polymer) sheeting protect from elements

Inner membrane

50,000 sq.-metre **Teflon** shield ensures perfect acoustics

Sources: BOCOG, Herzog & de Meuron, Ove Arup & Partners, GreenTech, Covertex

© GRAPHIC NEWS