



LOCATION:

London, England

PROJECT TYPE:

COMMERCIAL

## PROJECT CREDITS

**Client:**

Olympic Delivery Authority, London 2012

**Architect:**

Hopkins Architects

**Structural Engineer:**

Expedition Engineering

**Mechanical Engineer:**

Stantec

**Mechanical/Electrical/Environmental  
Engineers:**

BDSP Partnership

**General Contractor:**

ISG

**Photography:**

Courtesy Olympic Delivery Authority, London  
2012

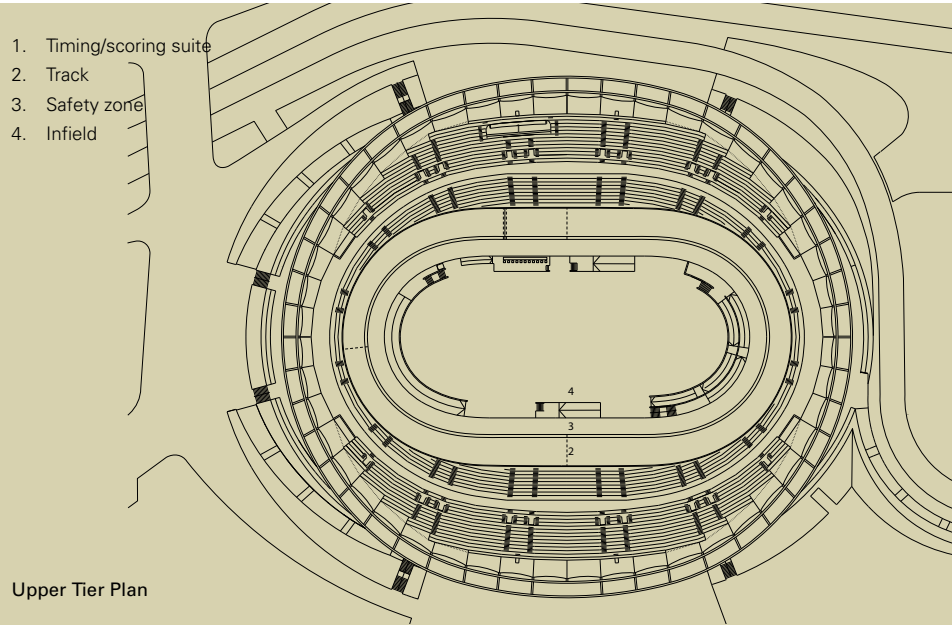
# London 2012 Velodrome

Located in Lee Valley Regional Park the new 6,000 seat velodrome was the first London 2012 facility to be completed, and will be the venue for the Olympic and Paralympic track cycling events. After the Games, the legacy velodrome will become the hub of a destination cycling centre used by both elite athletes and the local community. It will include a café, bike rental and cycle workshop facilities and is expected to attract more than 250,000 visitors a year.

The design ambition for the velodrome was to combine architecture, engineering and cycling to create a unique structure worthy of London 2012. The curved form of the completed building expresses the contours of the banked wooden track, and the refined engineering of the roof structure emulates the lightness and mechanical efficiency of bicycle construction. To create the best possible crowd atmosphere for competitive events, the track has been designed with seating all around.



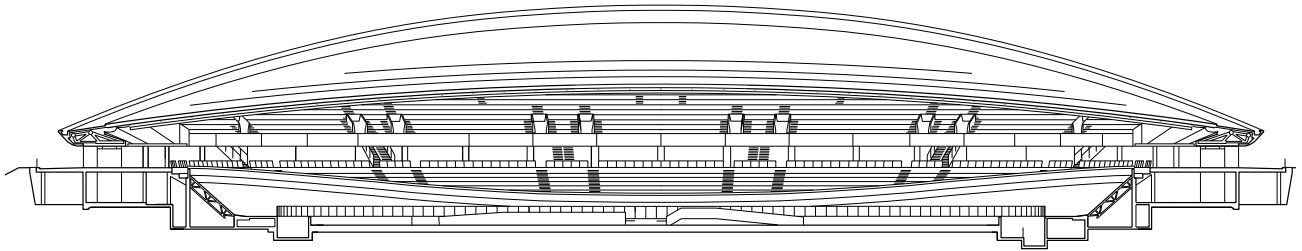
The seating is split into lower and upper tiers, allowing a 360° concourse level in between with a continuous ribbon of full height windows. The site was excavated so that the velodrome sits in a shallow bowl, with the result that the concourse level corresponds to exterior grade. This will enable park visitors to have a view to the cycling track from outside the building when the facility operates in legacy mode.



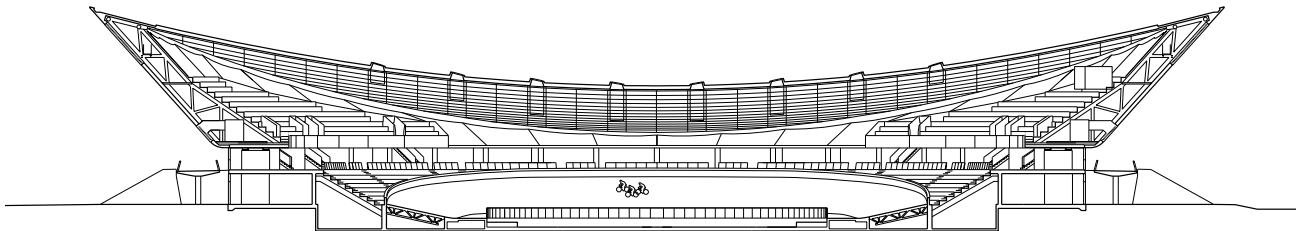




The 12,000m<sup>2</sup> roof is constructed using a very lightweight double curving cable net, suspended from a steel structure. Beneath it, the oval track is 250m in length, engineered for speed and constructed with great precision entirely from wood. The exterior of the building is clad in 5000m<sup>2</sup> of custom-cut Western Red Cedar shiplap boards. Cedar was chosen for its sustainable attributes, its durability and as an outward expression of the material character of the cycling track.

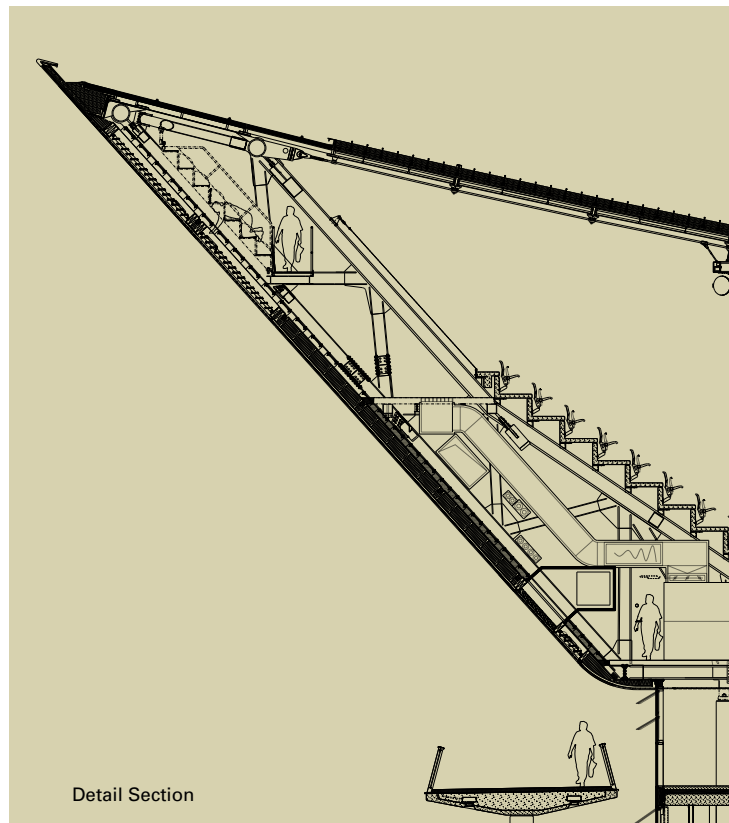


Longitudinal Section



Cross Section





## WRC SPECIFICATIONS

**Cladding:** Western Red Cedar, R-List #2 Clear grade, 100% PEFC certified size 18mm by 140mm shiplapped boards fixed with grade 316 stainless steel nails and screws with a coating of Owatrol Textrol oil.