

Arena Seating Parabolic Seating System

Life Cycle Carbon Analysis



Scope of Works

Arena Group employed KLH Sustainability to carry out a life-cycle impacts study of the recently specified Box Seat and Clear view seating structure utilised for the Queen’s Jubilee and London 2012 Beach Volleyball events in comparison with Arena Group’s current standard seating.

The innovative seating system has numerous benefits for spectator comfort and sightlines but Arena Group also wanted to understand if there were associated sustainability benefits.

Embodied carbon calculations were carried out in accordance with PAS 2050, although a 20-year timeframe was utilised as this is considered more suited to the temporary events market and is more representative of the maximum life-span of the most robust components. The study also investigated other key sustainability criteria such as waste generation and road vehicle movements.

Outputs

KLH Sustainability collated information from a variety of sources including on-site data.

A comprehensive assessment was undertaken covering:

- Manufacture including initial manufacture and replacement components
- Transportation including principal delivery to Arena Seating and the subsequent extensive re-distribution associated with events
- Waste generation and disposal. The outputs of the study are detailed below with clear benefits demonstrated over the 20-year life-cycle of the innovative seating system.

Outcomes

The study concludes that the Box Seat combined with the Clear View seating structure not only offers an enhanced spectator experience but also represents a more sustainable solution for delivering temporary seating for events.

The Box Seat and Clear View seating system is an obvious choice for event organisers who are interested in the delivery sustainable events and want to reduce the disruption associated with HGV movement on surrounding communities.

Client
Arena Group

Year
2012



Horseguards Parade London 2012 Beach Volleyball

	Total Life Cycle Embodied Carbon (tonnes CO2e)	Total number of HGV movements	Total Waste Quantities (tonnes)
Box seats with clear view	9,294	5460	892
Conventional seating system	10,341	7000	1420
Benefits of Box Seat/ Clear View	-1,046	-1540	-527