



ABBA Arena

Queen Elizabeth Park, London

Photo by Dirk Linder Photography & Film

Client	ES Global
Architect	Stufish Entertainment
Structural Engineer	Atelier One
Engineered Cassette Supplier	Timber Innovations / Wyckham Blackwell
Joist Supplier	James Jones & Sons / Crendon
Joists/Glulam	400D = 7,160 lm Glulam 45 x 100 = 8,880 lm
Project Value	Circa £1.5m



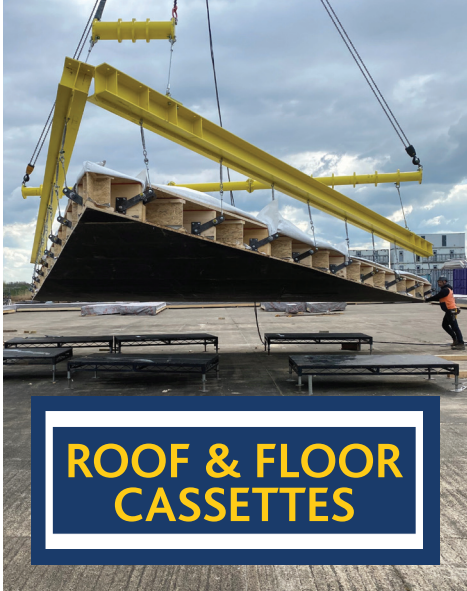
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Structure showcasing the extensive use of Glulam and CLT

The ABBA Arena is currently located at London's Queen Elizabeth Park. ES Global appointed Stufish Entertainment Architects to carry out the design on this project. The majority of the structure consists of mass timber and a steel frame. The arena has been designed so it can be dismantled and relocated to another location at a later date. It can welcome up to 3000 people.

The dome shaped roof structure is made up of 270 triangular cassettes, spanning between 0.5m and 12.00m. These were manufactured using I Joists, OSB, mineral wool insulation and acoustic separation foam, washers and fixings.





The prefabricated roof cassettes form the acoustic timber dome over the steel frame theatre building. The Dome has a diameter of 70m, and the building reaches an impressive height of 25.5m. The cassettes are designed to keep the sound inside the building. The three layer floating outer skin was developed by an independent acoustician and our in-house design team to prevent any 'sound leakage' from the venue – third party verification of the completed building has confirmed *'the show sound was literally inaudible from the test positions'*.



Engineered Joists for the roof cassettes were cut to size by Crendon Timber Engineering, then manufactured into cassettes by Timber Innovations and Wyckham Blackwell in their Solihull Offsite Manufacturing and Assembly Facilities.

www.timberframe.co.uk