OXFORD BROOKES CLIMBING WALL




THE WALL

J & J Carter worked with Oxford Brookes University to create a high quality 'Sport Rock Solid Climbing Wall' which included a bouldering room, bottom rope wall and Walltopia lead tower. Oxford Brookes is now well known for its climbing wall and lead tower which help to safely combine rock climbing in an indoor environment. Now, Oxford Brookes hold competitions, half term classes and leaderboards throughout the year.

TECHNICAL DETAILS

Our scope of work involved the design, engineering, setting out, foundation design, canopy frame and cladding fabrication and installation.

The site is very tight in terms of access and had a number of existing underground services which provided a challenge for

setting our foundations.

The client's requirements were for a light clearspan structure of some 12m high to enable rock climbing. Side walls which can be opened as and when were also a requirement.

We designed a steel freestanding structure in accordance with Eurocodes 1, 3 & 9. The CE marked steel frame was manufactured in accordance with EN 1090 Exec.Class 2. The 100m^2 structure provides some 985 m^3 of internal volume and has been designed to enable future expansion.

The structure which forms the enclosure is built using a galvanised steel frame with a tensile membrane cladding. The free-standing towering steel structure weighs 6.2 tonnes and provides brackets for the climbing wall to connect to.

The tensile membrane chosen for the project is a PVDF Lacquered PVC Coated Polyester which has a design life in excess of 20 years. The material provides good lighting within the canopy. In terms of it's flammability performance this material conforms to B.S 7837.

KEY FACTS

LOCATION: United Kingdom

STRUCTURES: Frame Supported

INDUSTRY: Sport

ROOF FORMS: Barrel Vault

MATERIALS: PVC/PES