

Britannia Leisure Centre, Hackney

PROJECT TEAM

Architect: **Faulknerbrowns Architects**
Structural engineer: **Buro Happold**
Steelwork contractor: **Severfield**
Main contractor: **Morgan Sindall Construction**
Client: **Hackney Council**



Britannia Leisure Centre lies on the edge of Shoreditch Park, a popular public park in Hackney, London, and is part of a wider mixed-use masterplan to help regenerate the area.

The building is a large-scale community leisure centre, with extensive wet and dry facilities. The client's goal was to create a community hub that encourages more people to participate in sport and adopt a more active and healthier lifestyle. Despite the pandemic, the centre has been hugely successful, welcoming 400,000 visitors in its first six months of operation, a 161% increase from the unsustainable and outdated centre that it replaces, and has achieved a BREEAM 'Excellent' rating, a considerable achievement for a scheme of this nature.

Historically, large multi-sports centres adopt a 'groundscraper' design with all the large span spaces such as pool/sports halls and squash courts at ground floor level. The building footprint required for such a design would fill the site, leaving a narrow, pinched access to Shoreditch Park. Hence, a stacked solution was developed, with sports spaces on top of each other, allowing greater generosity to the public realm and more permeability around the centre to the park.

The reduced land take allowed a greater extent of biodiverse green space, including rain gardens and sustainable urban drainage systems. The massing had a positive impact on the masterplan, making the adjacent land plots more attractive for commercial development, a key part of the funding strategy for the centre.

Swimming pools are at ground level, with sports halls, fitness suits and dance studios above, all topped off with tennis and five-a-side courts on the roof. Flexible sports activity spaces must be column-free, necessitating long-span beams. Under rhythmic excitation, caused by the sports users, the structural design becomes driven by controlling the vibration response within acceptable limits. Lightweight steelwork framing, with its high stiffness, especially when designed compositely with the precast concrete floor was the only material that could meet the spatial requirements and limit the vibrations.

Britannia Leisure Centre provides an inviting social hub for the whole community. Steelwork designed to close deflection limits facilitates the high levels of glazing, creating a transparent environment that allows people within the building to look out

across Shoreditch Park, while those passing by can see what is happening inside. This ensures the centre stands as a beacon of entertainment and relaxation for the whole community to enjoy – whether you are inside or out.

Judges' comment

A multitude of diverse and highly popular leisure spaces have been cleverly interlocked and stacked to reduce the building footprint. This has generated great civic presence and released land to help fund the development. The structural design has resolved the resulting technical challenges created by the solution.