

## Fire Station Auditorium, Sunderland

### PROJECT TEAM

Architects:

**Flanagan Lawrence, Howarth Litchfield**

Structural engineer: **JC Consulting**

Main contractor: **Brims Construction Ltd**

Client:

**The Sunderland Music, Arts & Culture Trust**



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The Fire Station Auditorium is a central feature of the Sunderland Music and Culture Quarter and looks to deliver a destination within the city for music and culture.

The client needed a space that could be highly flexible and suitable for multiple performance types, with quick transition between events to maximise the use of the venue. At a cost of £7million this is a unique offering with a high functional performance, quality build and architectural excellence for significant value for money.

The high level of acoustic performance required, coupled with the architectural intent, led the initial design towards a reinforced concrete box solution for the primary structure, with elements of steel structure for balconies and walkways. As part of a value-engineering exercise, the collective team revisited the initial concept. By adopting alternative detailing for the acoustic elements, an entirely steel primary structure could be adopted. This made the project more suitable to the local supply

chain, as well as improving the sequencing of the works and reducing foundation loads allowing the omission of piled foundations. In all, the adoption of a primary steel structure, in place of the initial reinforced concrete solution, resulted in a saving of approximately £300,000 with no loss in acoustic performance or significant impact on the finished beauty of the building.

The building has some very strong architectural features and is designed to sit alongside and within an environment of heritage buildings. Whilst it is very striking when viewed in isolation, with its overhanging front entrance glass and terracotta façade and the large open atrium, it is only when viewed in context to the entire area that these elements don't show off, but actually give prominence to the surrounding buildings. The foyer feels its own space, but also as if it belongs to the public realm. The use of steel to form the double cantilever is key to the success of this area, allowing the ground floor to be seamless with the inside outside intent.

Internally, one of the key aspects of the project was the ability for the space to be multi-functional with efficient change over between performance types. There are multiple stage positions as well as seating and standing arrangements, so the internal plan was designed around multiple general arrangements. Collapsing handrails, moveable stairs and, perhaps the most significant challenge, the retractable seating all formed part of the brief that had to be considered.

### Judges' comment

The century-old fire station has been refurbished into a performance venue in Sunderland's Music and Cultural quarter. Acoustic considerations initially suggested a concrete solution, but the frame was changed to a fully steel structure resulting in excellent acoustic performance in a very flexible facility, that was produced at substantially lower cost.