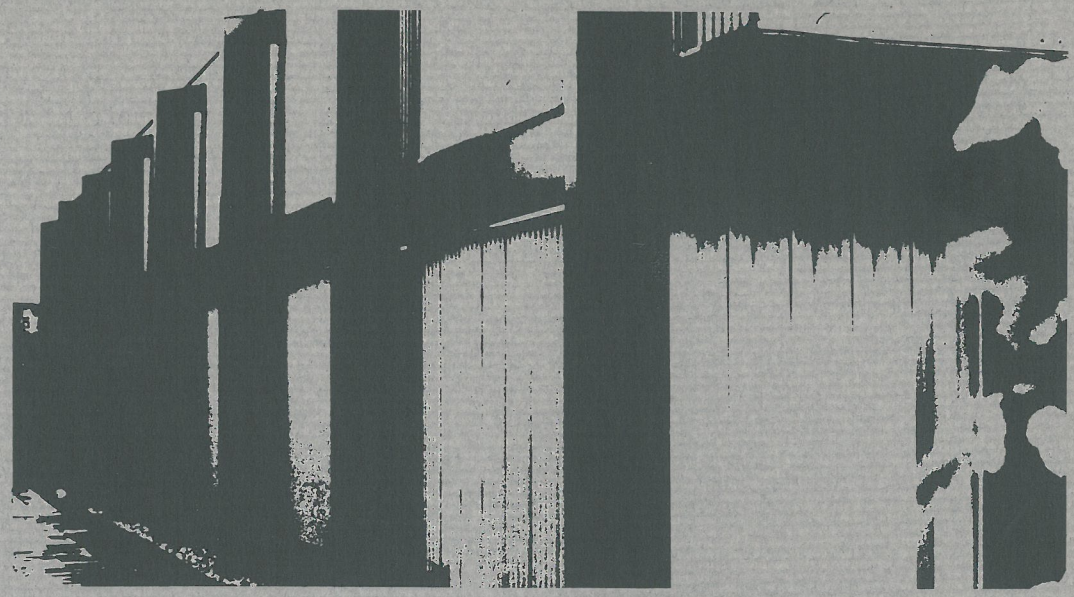

Museum of Science and Industry

Phase 1 Redevelopment

Newhall Street for City of Birmingham Leisure Services Committee.

ARCHITECTS
The City Architect's Department, Birmingham

STRUCTURAL ENGINEERS
Coseley Buildings Ltd

STEELWORK CONTRACTORS
Coseley Buildings Ltd

The new Locomotive Hall built to a very tight cost limit is the first phase of a programme of redevelopment and expansion at the Museum of Science & Industry and consists of a ground floor Locomotive Hall and a first floor gallery above for showcase display. The building (16,000 sq. ft. in area) houses various engineering exhibits, the main one of which is the "City of Birmingham" Locomotive, and it was therefore designed with an industrial character and construction for which a steel frame was ideally suited. The "City of Birmingham" Locomotive was already in position on the site and the new building was constructed around the engine and this fact, along with the restricted site conditions influenced the choice of a light steel frame which was easy to position and manoeuvre on site.

The construction of the Hall consists of a steel frame at 25ft centres with galvanised steel asbestos-lined fire protection, on piled foundations. The steel frame is positioned outside the external walls to provide, as far as possible, uninterrupted internal wall space for display purposes, with intermediate columns at mid span. Ground conditions were exceedingly poor and light weight steel cladding was used for internal and external wall finishes and also for the roof to restrict the total weight on the piled foundation and at the same time, to maintain the required industrial character of the building. These external walls and roofs consist of plastic covered galvanised profiled steel sheeting with an insulated lining and a plastic faced board internally to the roofs and acrylic paint finish to internal steel sheeting; thus providing a reasonably attractive finish that is easily maintained.

Steel is therefore used throughout the building both for the superstructure and the secondary elements to provide a robust building of industrial character which is easily maintained and is ideally suitable for the type of building required.

Judges Comments

The successful use of light construction to facilitate easy and economical erection on a restricted site.

The fire protected steel frames are external to allow for maximum display space and with the plastic covered light-weight steel cladding used for the walls and roof give the building an industrial flavour well suited to its function.


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