

One Braham, London

PROJECT TEAM

Architect: **WilkinsonEyre**
Structural engineer: **Arup**
Steelwork contractor: **Severfield**
Main contractor: **McLaughlin & Harvey**
Client: **Aldgate Developments**



© Mediamixer New Media



© Mediamixer New Media

One Braham is a commercial tower that offers 27,700m² of office space across 19 floors, includes two large open terraces on the 15th and 17th floors and an atrium that extends over parts of the 14th to 17th floors. The ground floor accommodates two retail spaces totaling 930m², a delivery area and a two-storey reception area that can be accessed from Braham Square to the north and Leman Street to the east. The basement is home to storage facilities, cycle stands, changing rooms, showers and lockers. The office building has received a BREEAM 'Excellent' rating and has been awarded a WiredScore Platinum rating for its digital infrastructure.

The façades to the office accommodation are fully glazed with vertical brise-soleil to the east, south and west façades. The ground floor is set back to form a colonnade modulating between the new park, the building entrance, and adjacent shops.

Once the basement structure to ground floor level and the concrete core were constructed, the preparation for the steel erection could begin. The steel frame begins at ground floor level and is based around a grid that has primary columns spaced at 9m centres with internal spans of up to 13.7m.

Keeping within a permitted height due to project restrictions, the design has used fabricated plate girders to support the metal deck flooring system. These girders have bespoke holes to allow all the services to be accommodated within their depth. This service integration and the use of shallow heavy plate girders allowed one extra floor to be incorporated into the planning envelope.

The client's request was to have an 'industrial feel' to the office, which meant a large amount of the completed steel frame has been left exposed. This required a great deal of care to be taken with the design and detailing of the steel connections.

The stability system of the building has been concentrated at the reinforced concrete core where shear walls provide the stability. This avoids the need for vertical diagonal bracing in the building, which minimises the impact of the frame on the remainder of the floorplate and facilitates the flexible design and open-plan nature of the building. The composite floors act as a diaphragm to transfer the horizontal loads to the reinforced concrete core.

The construction of the project was successfully completed safely and on schedule and benefitted from excellent collaboration between all project partners from an early stage.

Judges' comment

This City fringe office building is a fine example of the use of steelwork to meet the demanding commercial requirements of the client. By applying many intelligent devices, an additional floor was squeezed into the planning envelope. Fabricated plate girders, composite beams, higher grades of steel and pre-cambering resulted in a ruggedly practical finish.