Steel Reuse
30 FINSBURY SQ

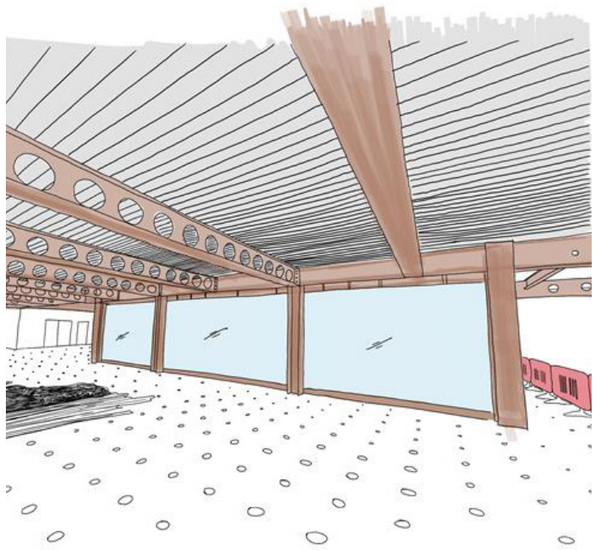
UK2026 CIRCULAR STEEL

30 Finsbury Square is a 7 storey steel framed building in the City of London, with metal deck floors supported from long span cellular beams. The building was designed by Eric Parry Architects and Whitby Bird structural engineers in early 2000's, with the loadbearing stone facade being a unique feature of the building.

A refurbishment is being undertaken on the building, with Collins appointed as main contractor and Whitby Wood as structural designers.

Refurbishment proposals include the creation of a double height reception area as you enter the building. 4 bays of the existing first floor slab are to be cut out as part of the works, including 3 cellular beams. Two of the steel beams are to be reused to support the edge of the 1st floor atrium.

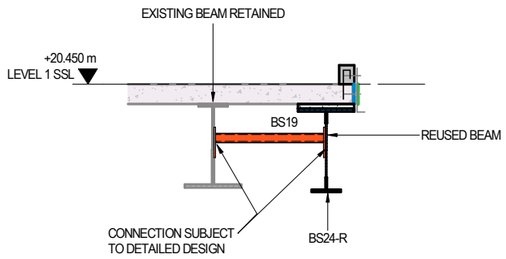
Across the industry reuse of cellular beams has been limited to date, given the fabricated nature of the beams and additional unknowns/checks being required on welds etc.



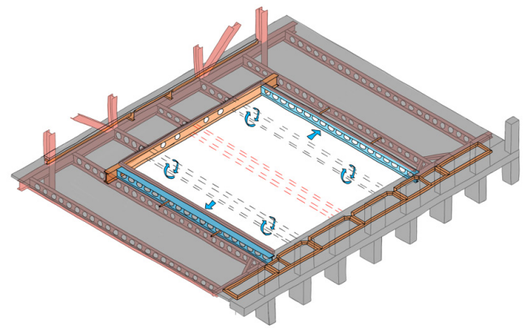
The cellular beams were designed compositely with the slab above and are asymmetric with a wider bottom flange compared to the top. To aid the detailing for reuse it was proposed to rotate the beams.

As the existing beams are being reused on the same project, with full archive information available for the original steels and the existing loading known, material sampling was not required to the steels. Steels were justified as they were being reduced in length from original spans and based on the archive information.

Re-fabrication is being completed on site to avoid taking the beams off site.

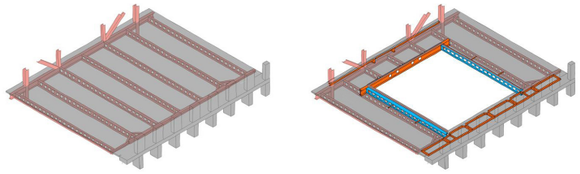


Re-use Strategy:



Metal deck slab cut along each side of the steel flange, with slab to be broken out carefully over top flange. Steel beams to be rotated and re-fabricated on site.

Before: **After:**



The works are currently being undertaken on site and due to be completed in June 2026.

The third cellular beam is being donated to the ASBP, SCI and City St George's Re-Cell project.

SUMMARY

- **Reuse of cellular beams; taking from one part of the building and reusing in new locations**
- **Detailed archive information on the beams, avoiding need to test**
- **Re-fabrication of steels on site**
- **Proof of concept on this project, to aid future reuse of cellular beams on a larger scale in the future (extraction, re-fabrication, detailing etc.)**

Collins

whitby wood