

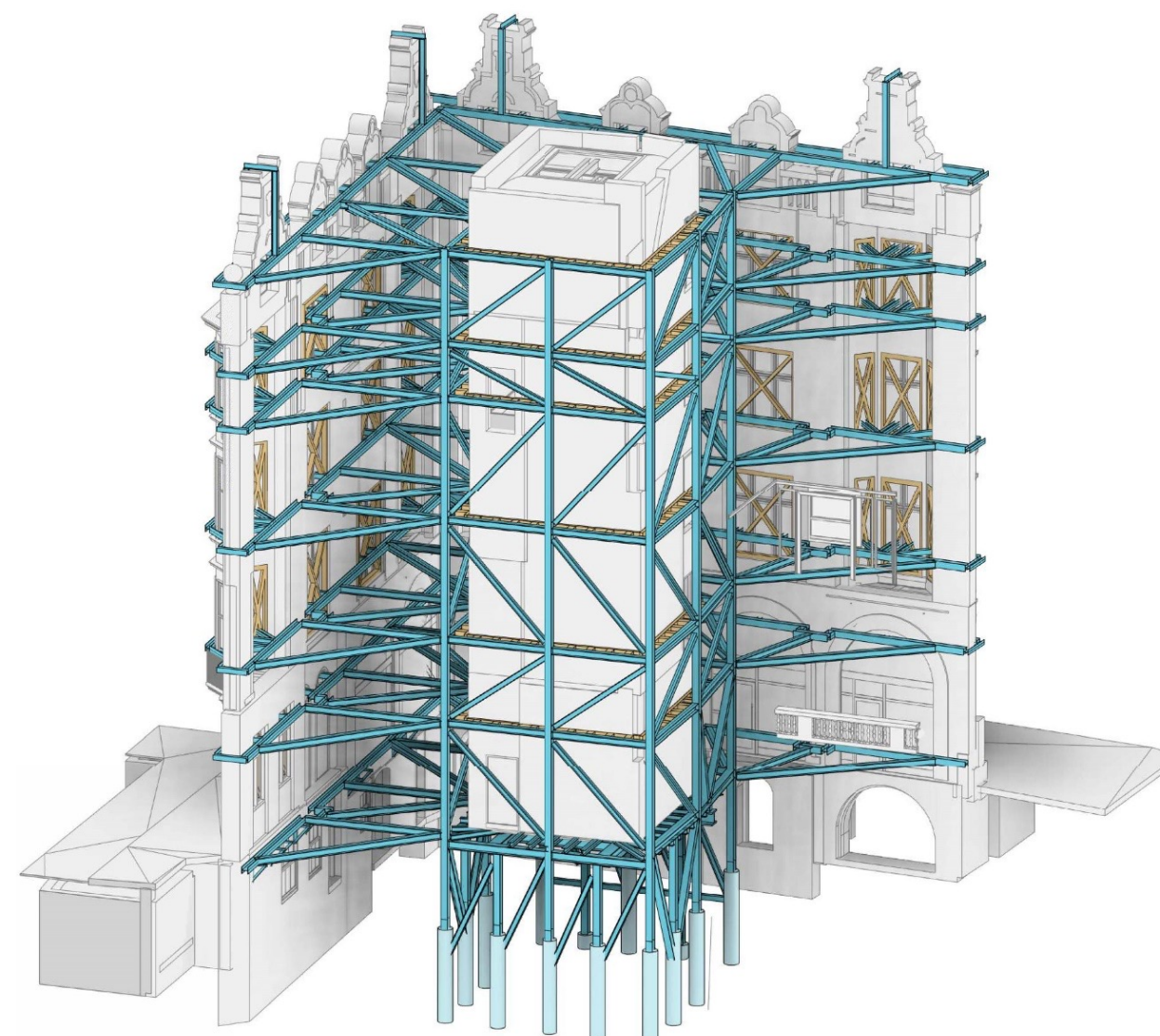
Cambridge House

deconstructuk.com



2023

At Cambridge House, we have a project which is arguably one of the most complex in London. A project which not only poses significant logistical challenges because of its Central London location, but it also harbours significant buildability issues which we have successfully managed to overcome.



The project included the installation of a façade retention scheme in order to stabilise two elevations of the existing building and the suspension of the existing internal stair core. These works required a carefully considered design which enabled not only the installation of the steel through the existing structure, but the safe demolition of the building and subsequent four storey basement dig underneath the existing staircase and building.

The steel design for the façade retention scheme had to be very carefully considered, with thought given to the manual installation of the retention and the inability to load the existing timber floors limited size and weight. The constraints of moving steel within the building meant lengths needed to be sized to accommodate, the exposure of the existing façade meant several changes to the design on an ad-hoc basis to suit discovery items. With this we also needed to consider the continued monitoring of the existing façade for potential movement as well as the jacking operations to the existing stair core.

Putting True Meaning Behind the Colour

We challenged ourselves to incorporate existing steelwork on this scheme as the project was of such significant historical value and the nature of the works lent itself to re-use. We were able to harvest our own stock by coordinating with the design teams, as well as considering other schemes we were dismantling for inclusion. We also needed flexibility because of the heightened risk of discovery in a building such as this, which regularly saw us re-use sections and fabricate these onsite to suit.

The journey of some of this steelwork is a story in itself. We dismantled a 25-tonne tower from our project at St Barts, rebuilt this at Medius House, dismantled it again and re-used it at Cambridge House!

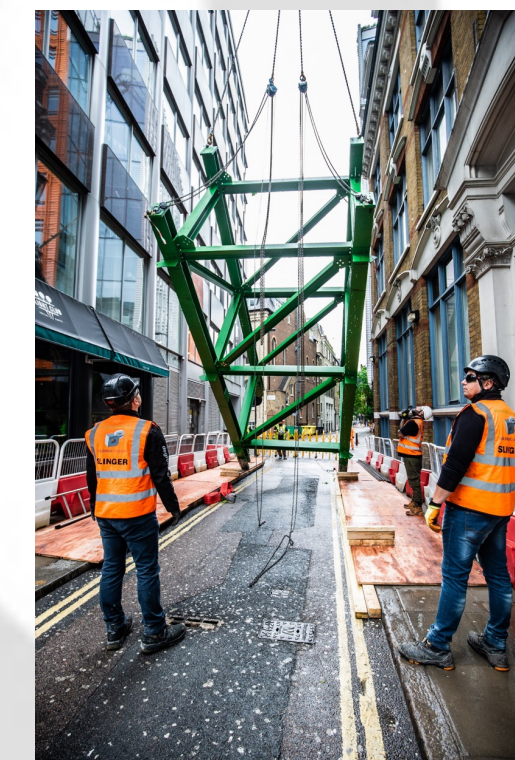
Approximately 480 tonnes of steelwork was installed at Cambridge House as part of the façade retention system at Cambridge House. Of the 480 tonnes of steelwork, we were able to recycle and re-use approximately 100 tonnes of material from owned and previously used stock material.

A further 25 tonnes of material came from dismantled material delivered from our other temporary works schemes. In addition to this, and in order to supplement our own stock, we were able to secure and incorporate approximately 250 tonnes of new steelwork from stockholders that utilise Electric Arc Furnace production methods. This meant 78% of the steelwork on this project came from sustainable sources.

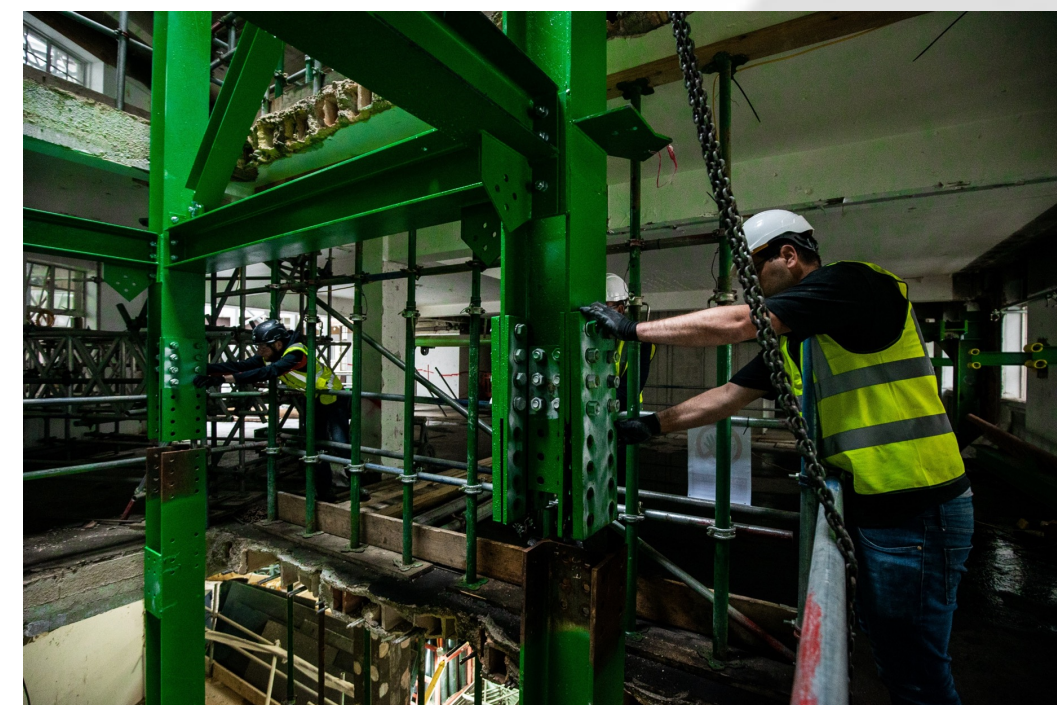


The Journey ...

25-tonne tower was removed from our St Barts site piece by piece, returned to our factory where the beams were reviewed and tested to see if they are viable for re-use.



At the factory, the steel was shot blasted before refabrication to suit a new tower design, re-painted and assembled.



The refabricated tower was utilised on our Medius House site as a temporary support tower for the adjoining property.

A new refabricated tower was then used at Cambridge House. This process made a huge saving on the 2.5t of carbon per tonne of steel produced in the traditional rolling method.

On completion of the works at Medius House, the steel tower returned to our factory where the testing and refabrication process was repeated.

