RETAIN
REPAIR
REFURBISH
RETROFIT
REMODEL
REPURPOSE

CASE STUDY / 30 Cleveland Street

30 Cleveland Street demonstrates how an early twentieth-century steel-framed office building can be refurbished and extended while retaining its primary structural system and architectural character.

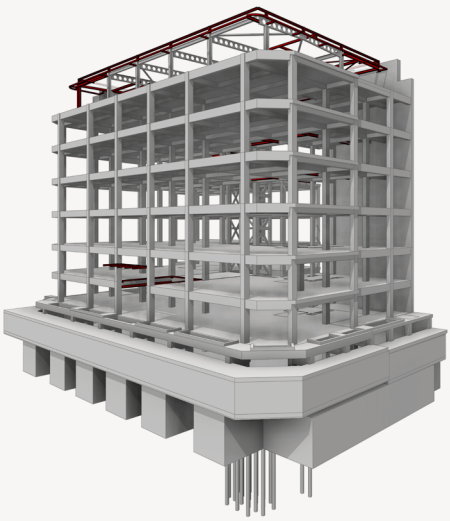
Originally constructed circa 1925, the eight-storey Art Deco building in Fitzrovia comprised a riveted steel frame with concrete-encased columns and beams, one-way ribbed concrete floors formed with hollow pots, solid brick external walls and a concrete core providing lateral stability. Rather than demolish and replace, the project retained this structural framework and adapted it to accommodate contemporary office use and additional floor area.

Extensive intrusive investigations and load takedown assessments were undertaken due to limited historic records. Existing load allowances were verified and compared against proposed occupancies, plant requirements and extension loads. This analysis informed targeted strengthening to elements of the existing steel frame and checks on assumed shallow pad and strip foundations to confirm adequate capacity.

The refurbishment included slab alterations above the reception, formation of new riser openings, slab infills and reconfiguration of plant areas. Concrete encasement to steel members was locally removed and reinstated with intumescent protection. New one- and two-storey rooftop extensions were introduced at upper levels using lightweight steel framing and metal deck composite slabs to limit additional load on the retained structure.

Historic Art Deco façades were restored, while terraces were formed at the 4th and 6th floors and new plant enclosures integrated with acoustic screening. The project delivered 38,877ft² of upgraded office accommodation without replacing the original structural frame.

The scheme illustrates how detailed assessment and selective intervention can unlock additional capacity within existing steel-framed buildings, extending their commercial life while retaining embodied value.



Structural Engineer: Evolve

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