

## Case study: Remodel - Selfridges Duke Street



The Selfridges Duke Street project demonstrates how large-scale structural remodelling of an existing building can be successfully delivered through forensic analysis, careful sequencing and close collaboration, even within a fully operational retail environment. Expedition Engineering was appointed to unlock the potential of Selfridges' flagship London store by enabling a new customer entrance on Duke Street and improving circulation across the wider building, all while maintaining largely uninterrupted trading.

Decades of piecemeal alterations had left the store with a highly complex and inefficient structural arrangement. Before any remodelling could proceed, Expedition undertook detailed structural investigation to confirm their understanding of the existing fabric of one of the UK's oldest steel-framed buildings. This process of unpicking the structure was fundamental to identifying

load paths, constraints and opportunities for reuse, allowing ambitious architectural proposals to be realised without unnecessary demolition.

The creation of the new Duke Street entrance required extensive enabling works, including the relocation of existing structural obstructions and the formation of new openings. These interventions were carefully planned and phased so that major structural alterations could take place just metres from customers. Even significant basement and foundation works were executed while the store remained fully operational, demanding exceptional precision in temporary works design and construction management.

A key intervention was the construction of a 50m long truss bridge within the basement to relocate HGV delivery access. This not only resolved complex logistics constraints but also improved the

streetscape at Duke Street. Beneath the bridge, a new escalator tunnel was formed to provide a dedicated access route for office staff, further enhancing internal circulation.

As the structure was progressively exposed, unforeseen conditions were inevitable. Expedition maintained a continuous on-site presence, enabling rapid engineering judgement informed by detailed analysis. This approach often reduced or eliminated the need for intrusive strengthening and managed risk pragmatically to mitigate impact on programme.

The £300m redevelopment has increased retail space by 10% and extended the life of a century-old building by an estimated 100 years, demonstrating the value of adaptive structural remodelling over wholesale replacement.

Structural Engineer: [Expedition Engineering](#)  
Photos: Expedition Engineering