

QUEENSBRIDGE HOUSE

Client: 4C Hotels | Duration: 44 Weeks | Value: £6,300,000

Queensbridge House is located in the Mansion House area of the City of London. The project consists of five buildings which occupy locations to the north, south and directly over Upper Thames Street. Our scope included the soft strip, asbestos removal, temporary works installation and demolition of all five buildings. As a key arterial route through London, Upper Thames Street remained live and fully operational during the demolition process.



In addition to the standard statutory demolition approvals, a number of additional constraints applied to this project, which all required formal approval prior to commencement.

These included Environment Agency and Port of London Authority approvals associated with working adjacent to the Thames River waterway; Transport for London and City of London approval associated with the demolition of the Queensbridge House bridged structure over a live major traffic thoroughfare and an unprecedented number of scheduled monuments (four in total) on one project requiring statutory English Heritage consent to carry out works anywhere in the vicinity.

A significant constraint involves structural demolition of the bridged section of the Queensbridge House structure over the live Upper Thames Street, East – West highway.

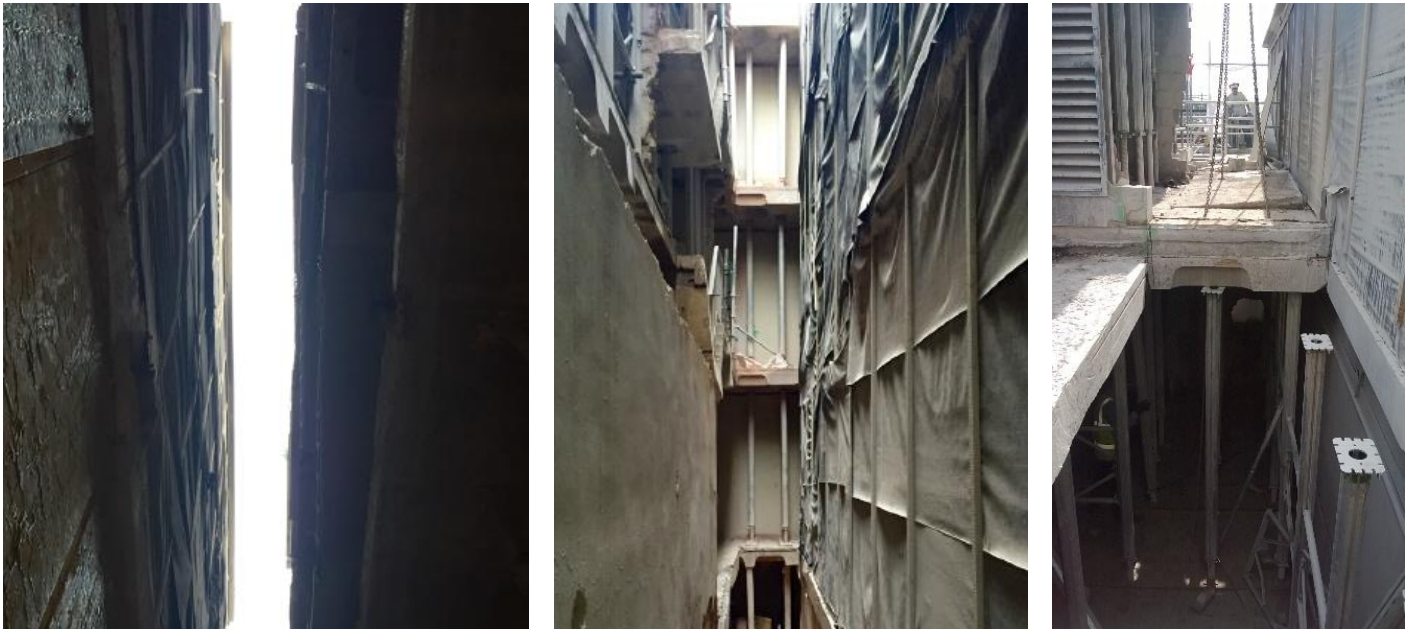
To facilitate this, Cantillon designed and installed an independent steel protection crash deck and scaffold support over the roadway. This required detailed co-ordination with various stakeholders including Transport for London, the City of London and involved working around the politically sensitive construction of the Super Cycle Highway network passing directly beneath.

In addition, vehicle access to the north site was restricted to 7.5T MGW on the one-way Little Trinity Lane, so traditional HGV access was not possible. Cantillon developed a strategy with the City of London to reverse the traffic flow under a Temporary Traffic Order on Little Trinity Lane and managed the process without incident.

Prior to commencement of structural demolition to Queensbridge House, which itself was attached to the occupied residential Queens Quay building, a strategy was designed to undertake various enabling works to disassociate the building structures, building services and most significantly the fire escape and life safety systems which all depended upon the building about to be demolished.

Cantillon designed and installed a fully integrated life safety system within the occupied Queens Quay to enable the existing fire escape staircase located on the site side cutline to be demolished. A smoke extract and automated damper control system, linked to the existing buildings life safety system, as well as construction of additional compartmentalisation.

Following this, to minimise the transfer of structure-borne vibration to the occupied residential Queens Quay via the shared Queensbridge House structure, Cantillon developed and implemented a strategy to effect a full separation between the buildings using low vibration demolition techniques. This involved a full height sequential propping and saw cutting of all structural stair and floor elements, so that each section could be lifted away using the site tower crane for processing off site.



The project team also developed a method to minimize structure borne noise and vibration when installing permanent anchors to the sensitive Grade II Painters & Stainers Hall party wall, using non-percussive rotary drills and pre-installation mechanical keying of the anchor holes, which successfully mitigated any significant nuisance to the Livery and Banquet Hall.