

HEX Building 8

Harbour Exchange Tower, Canary Wharf

Client

HR Facilities

Principle Contractor

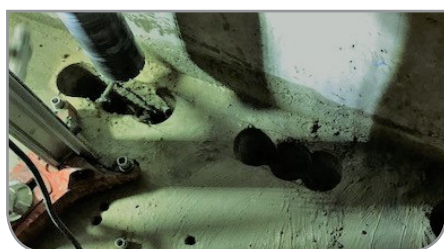
HR Facilities

Works Commenced

February 2018

Works Completed

February 2018



Harbour Exchange Tower, located near Canary Wharf, is a distinctive 17 storey office complex, constructed as two distinct buildings split down the middle but sharing a common foundation.

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Freyssinet assisted on all associated calculations, drawings, and the supply and installation of carbon fibre strengthening as per Mapei's design report.

Freyssinet was initially engaged to investigate the options available in order to strengthen the 280mm thick PT slab to the necessary performance criteria, while accommodating the new opening. Investigations showed that the additional strength could be provided by a sufficient amount of fibre reinforced polymer (FRP – carbon wrap).

The Freyssinet solution comprised several strips of MAPEI wrap carbon fibre bonded to the slab/soffit and linked by carbon cord system.

The scope of works included:

- GPR survey on the existing slab to track tendons (PT cable) and steel rebars
- Drill holes through the slab to install carbon cord (structural connection between the carbon wrap)
- Installation of the FRP (carbon wrap) underneath the slab
- Form openings with the coring machine, surface preparation, installation of the FRP (carbon wrap) sequenced in two phases (top/bottom slab/through the opening)
- Installation of the carbon cord (structural connection between the top/bottom carbon wrap)

The timing of the works was critical to the Client, as there was a narrow window of opportunity between no longer needing the area and putting the electrical installation in place. Freyssinet's carefully planned site operations were commenced and completed within eight days.

In order to minimise any H&S risks, sheeting of the enclosure and dust extraction equipment was used during the surface preparation operation. This process is ideally suited to live or near-live environments such as the HEX building, as the installation caused minimal disruption and noise and dust were virtually eliminated.