

Surveying wall defects on an industrial scale



Martech was requested by a long-term client to assist with survey works on a large industrial building. Specifically, this involved a south-facing brick-faced wall with bulging and various other signs of distress.

with strategic use of wall tie location, borescope surveys and physical breakouts to look at the quality of tying (inter-leaf and to concrete frame) as well as slip brick locations.



From experience, it seemed clear that issues with brick slips and ties were likely. This allowed a targeted approach to testing to take place,



Under lab conditions

Martech provided a team to carry out investigations, alongside a structural engineer, on a 1980s building on the Cambridge Science Park. The work was carried out on a weekend to avoid disruption to the client's laboratory services and specialist production facility.

In the absence of drawings detailing the original construction, and subsequent extensive refurbishments, it was necessary to back-engineer the concrete construction detailing, mainly in the floor build-up. This is something that Martech often has to do and is made easier given the team's core expertise and knowledge of concrete construction techniques developed over the years.

The structural engineer required layer thickness and section sizes (including all reinforcement detailing of the original construction), plus the various construction nuances and detailing. The work was completed in a single visit on a Sunday morning with a Martech director on site.

A report was quickly provided, with detailed photos and notes, enabling the structural engineer to meet client expectations.



Did you notice?

We have tried to cover all of Martech's services in this newsletter, as always, and may well have succeeded on this occasion.

It looks like we've had a nice steady year of endeavours, without doing anything that was spectacularly newsworthy.

Carrying out high-level gardening certainly made a change. We doubt the best professional gardeners would be able to adapt to concrete reporting and repair skills as easily!

The Inspector

Inspection and Testing News from Martech

Spring 2017



Multiple multi-storey problems



Martech has been involved in the survey and testing of one multi-storey car park for many years. The building is a key local authority asset.



The original concrete condition survey brought to light some issues in the design and construction of this structure in south-east England, dating back a number of years. Amongst the findings was the presence of HAC concrete in parts of the construction. Martech involved a Structural Engineering practice familiar with such structures for further phases of works and analyses, which are ongoing today.

MARTECH HELPS TO PRESERVE PRESTON

Accurate reporting of concrete condition central to £23m Brutalist renovation project

Martech was privileged to be asked to carry out extensive survey work on Preston's Brutalist central bus station and multi-storey car park. Threatened with demolition on more than one occasion, it was Grade II listed in September 2013.

It is a very large structure, being a surrounding bus station down both sides at ground level and a five floor car park with capacity for 80 double-decker buses and 1,100 cars. It was once described by the Twentieth Century Society as "one of the most significant Brutalist buildings in the UK". The Martech team all likes it, but perhaps they just like all concrete things that are big and dramatic.

The extensive experience and knowledge of Martech's long-serving senior site engineers enabled accurate and detailed knowledge of the concrete condition to be established. The essential concrete repair and coating works will now preserve this landmark structure for future generations.

Did you know?

Through Martech's concrete survey work for a good client in central London, our abseiling capabilities have accidentally expanded into high-level gardening!

See full story inside.

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