

QUALITY CHECKING OF PERMANENT FORMWORK FOR VOIDS

Permanent formwork is a highly efficient construction method but can lead to hidden honeycombing and voids.

OBJECTIVES

The client was constructing a multi-storey building using a concrete permanent formwork system. This consisted of two precast leaves, infilled with concrete. However, if the concrete was not correctly vibrated it can lead to hidden voids or honeycombing within the wall.

SOLUTIONS

Trace-SI advised on a fully non-intrusive survey method that allowed for complete coverage of the walls. The works were completed by a consultant covering two floors of the building in less than a week, all while other works continued on site.

The data was analysed offsite and detailed CAD drawings were created showing the size and locations of areas of honeycombing and voiding present within the walls.

This allowed the client to drill and grout the defects. Once grouted, Trace-SI returned to site to check the effectiveness of the grouting and map remaining voids. With this, the client was able to confirm the compliance of the walls to the asset owners

BENEFITS

Site works were fast, non-destructive and comprehensive, preventing disruption to the project

Accurate and detailed CAD drawings showed the areas of concern allowing for efficient remediation

Trace-SI undertook a return visit to quality check the repair works and ensure all voids were sufficiently grouted.

