

BEARING LENGTH DETERMINATION FOR RAAC PLANKS

TRACE-SI's integrated GPR and intrusive survey uncovers precise bearing lengths and ensures proper reinforcement, safeguarding structural integrity.

OBJECTIVES

TRACE-SI was engaged by a prominent construction consultancy to conduct an investigation into Reinforced Autoclaved Aerated Concrete (RAAC) planks at an undisclosed educational institution

RAAC planks are known to pose significant challenges when it comes to their bearing lengths and proper reinforcement. The complexity arises due to the difficulty in accurately determining the bearing length as well as ensuring the presence of adequate reinforcement. In this particular project, the challenge was to identify the transverse reinforcement over the bearing elements of RAAC planks.



SOLUTIONS

Leveraging our expertise and state-of-the-art technology, TRACE-SI developed and executed a comprehensive survey strategy. The innovative approach combined Ground Penetrating Radar (GPR) scans with targeted intrusive works to achieve the most accurate and reliable results. Our dedicated team utilised the GSSI StructureScan Mini XT system with a 2.7GHz central frequency antenna, allowing us to penetrate up to though the roof finishes.

BENEFITS

TRACE-SI's non-intrusive survey provided an intricate mapping of the bearing lengths across the RAAC planks. This information is vital to ensure the structural integrity and longevity of the planks.

By integrating GPR scans with intrusive investigations, TRACE-SI successfully verified the presence of transverse bars over the bearing elements. This verification is crucial to guarantee adequate load distribution.

The resulting report offered a comprehensive insight into the construction quality and reinforcement details of the RAAC planks. This level of detail empowered the client to make informed decisions about potential corrective actions or improvements.

