

ABSTRACT

In the recent years, an increasing number of historic buildings are being underpinned for multiple reasons: protection against adjacent excavations, strengthening of foundation for load increase or building use reassignment and foundation repair. Independently of the reasons (protection, remediation, strengthening), underpinning of historic foundations comes with a set of challenges that are for the most part inherent to historic buildings: the sensitivity of the building itself, the restrictions from a preservation perspective, the condition of the existing foundation and limited site access. These challenges are aggravated by natural challenges related to the subsurface conditions. This paper presents the challenges of underpinning historic building through cases studies and illustrates how the chosen underpinning technologies tackled these issues.