

GEA PROJECT FACTSHEET

Project Name: Bath Spa Hotel

Site Location: Bath City Centre, Avon

Overview: Redevelopment of the existing hotel tennis courts for the construction of a new gymnasium which is to be contained within a partial basement excavated into the sloping site in order to minimise visual impact of the development. This investigation was designed, carried out and supervised by the GEA Wiltshire office.



The Technical Challenges:

- Slope Stability -** The site is located towards the toe of the sloping valley sides which are known to be prone to slope instability.
- Retaining Wall Design -** The presence of interbedded clays and oolitic limestone rock layers presented concerns with regard to the excavatability of the proposed basement and the feasibility of utilising sheet piled retaining walls to support the excavation in the temporary case.
- Groundwater -** Concerns were raised over the presence of perched water behind existing retaining structures and within the interbedded soil and rock layers beneath the site.
- Existing Structures -** The close proximity of the proposed development area to other hotel structures and the existing tennis courts retaining walls was of concern with regard to the proposed development.

The Site Work Challenges

These included; restricted access and working within a five star hotel complex, the requirement for an extremely high quality reinstatement of lawns, terraces and the existing tennis courts which were to be returned to use following the investigation.

The Solution

The practical and pragmatic approach adopted by GEA ensured that the multi phased investigation provided the client with the most cost effective solution. We were able to provide the structural engineers with sufficient information to assist with the development of the building concept and our specialist advice regarding the slope stability and retaining wall design in both the final and the construction phases assisted in the formulation of the most efficient and workable design for the new building which is due for completion next year.

For further information regarding this or any other ground related issues contact:

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