



National Society for Epilepsy, Chalfont St Peter, Buckinghamshire



The National Society for Epilepsy (NSE) - founded in 1892 - purchased a farm near Chalfont St Peter in 1894 to create a permanent home for the organisation and a place where people with epilepsy could work. Though a number of buildings have subsequently been constructed on the site to provide homes for epileptics, in 1942 it had reached its maximum number of residents (575). Some of the buildings constructed in around 1900 are listed of architectural importance.

The NSE wanted to create a new leading edge research facility and the desperate need to update the existing buildings meant a new Master Plan was developed for the entire site. This plan required the demolition of 11 non listed buildings and the construction of 5 new care homes plus a state of the art genetics centre.

KB² were invited to advise on the structural engineering of the new buildings, the first two having a construction value of £4.5 million. KB² carried out an appraisal of the generic ground conditions, all the new buildings and undertook a limited probe and bore hole investigation. This established the presence of chalk underlying an upper superficial layer of gravel and clay with variable composition. The NSE site is in an area which is known to be susceptible to instability associated with the collapse of dissolution features within the underlying chalk - the investigation confirmed this as a potential problem.

The foundation solution for the first two buildings adopted the use of reinforced concrete strip foundations with cruciform ends bearing into the superficial deposits. The results of the detailed site investigations showed that the variations in the strength of the superficial deposits were greater than had been envisaged and the depths of the strip foundations were increased as a result. The pre-construction phase for the remaining four buildings will include further detailed site investigations and consideration of the use of piled foundations to remove the risk associated with increased ground works cost.

“KB² have a commercial understanding of a client’s problems, and they give advice on time, and they are a pleasant lot - a winning combination!”

Tristram Reynolds, Director of Development
- National Society for Epilepsy

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