



Furness Partnership
Consulting Structural/Civil Engineers

Ranulf Road Preliminary Structural Proposals:

- **Demolition** - The existing detached property will be demolished with care in a sequence manner to ground level. This would be followed with preparing the piling matt for formation of the proposed basement.
- **Sub-structure construction** - The formation of basement and the lower ground floor will be carried in such a way as not to compromise the foundation and structure of the neighbouring buildings. As the site level is sloping towards the garden the maximum ground retention is towards Ranulf Road. Contiguous piling using a Continuous Flight Augered (CFA) rig is currently considered the preferred construction method for the substructure. This method has the advantage of low noise / vibration against methods such as driven piles. Once the piles are in place the basement slab would be formed and a secondary wall is built to ensure the basement is suitably tanked for residential purpose. Reinforced concrete capping beams would be formed for the formation of the lower ground floor and the superstructure.
- **Super-structure construction** - The proposed buildings upper levels comprises of a number of cubical volumes mounted on top of each other with slight staggering of the footprint in order to achieve versatile internal / external spaces that are contemporary in design. However beyond ground floor the cubes have four locations in common where they are vertically aligned providing the opportunity to position the buildings columns. Therefore there is a need for a transfer slab at ground floor which can be achieved using reinforced concrete slab.
The intention is to construct the superstructure using modularised construction methods such as precast concrete or solid cross laminated timber. These methods have the advantage of a better quality finish as well as a speedier erecting time on site that would Benefit the project in its entirety and minimise any disturbance to the neighbouring buildings.