Beautiful Basements Case Study

Basement Conversion – Ashley, Northants



Client

Langton Homes Ltd.



Build of a basement next to a road, used frequently by large industrial machinery.

The site had to be stabilised using contiguous concrete piling before the basement could be excavated and built without fear road collapsing and falling into the site.

A slight deviation from the norm, but a Beautiful Basement none the less.



Located in rural Northamptonshire, Langton Homes had acquired a derelict house, barn and a large plot of land and planned to develop the site into 4 modern homes.

The two new properties to be built would both have basements to maximise the floor area of the houses, without breaching the strict local planning and conservation conditions. The first of which was to be built on the junction between two roads, used by local farmers and their heavy machinery.

The site was stabilised by drilling and pouring deep contiguous reinforced concrete piles, capped by a reinforced concrete beam to stop the piles from slipping and moving.

Once complete and capped, the excavation could be carried out and the basement be built. The method used was timber shuttering and mass filled reinforced concrete.



The site has a very high natural water table (1m below the ground) so the excavation was permanently dewatered using perimeter drains, linked to a sump and two pumps. This would later be used as a primary waterproofing system, by not letting water pressure come to bear against the walls of the basement. The basement was also waterproofed internally using a cavity drainage membrane system, linked to an internal sump and two pumps.





Waterproofing Method: Cavity Drainage Membrane (Type C) - Triton Systems Ltd

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