



## Beautiful Basements Case Study

### Retro-fit for self-contained apartment under a town house – Leicester

**Client** Mr. Mulla  
**Waterproofing Designers** Beautiful Basements

#### Background

A new, self-contained apartment was created under a 3 storey town house in Leicester city.

During the initial discussions with architects it was clear that this would be a very complex project and that a basement expert would be required to design and build the new space. The small basement that was present already was extended under the entire footprint of the house and a new small external patio and external entrance staircase was created.

#### Construction Method

The first step was to excavate externally for the new stair and light wells. Once formation level was reached, the concrete slabs could be cast and the excavation could begin under the house.

The original 400mm deep house foundations were underpinned 1m at a time in a hit and miss fashion. Each section was created using mass filled reinforced concrete, tied to the sections either side. When all sections of the wall had been cast the floor could be lowered. The new concrete floor was then cast and tied into the new walls with joint sealed with a waterproofing slurry.

The new staircase was finished and basement fit out internally to the clients specifications, including a kitchenette and a new shower / WC.

#### Waterproofing Method

Type C – Cavity Drainage Membrane System

Internally a cavity drainage membrane (CDM) was applied to all walls and the floor. This was linked to a sump and pumping station, which in turn is monitored by a Hades Sump Monitor. The existing basement waterproofing was lapped and incorporated into the new system and the new access stairwell and light wells were incorporated in the drainage.

All joints in the underpinning and between the floor and walls were sealed with a hydrophilic waterproofing slurry.

All waterproofing materials were supplied by Triton Systems Ltd.

#### Build Programme

5 months



Basement Build  
Conversion  
Retro-fit  
Waterproofing

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