



Listed Vault Waterproofing in Central London Protecting Four Existing Vaults Beneath the A40 Motorway

The Project

Beneath the streets of Central London, just North of the River Thames and a short walk from such famous landmarks as Smithfield Market and St Paul's Cathedral, lies a network of historic underground vaults.

The Grade II Listed structures are each over 4 metres in height, and form part of an impressive below-ground infrastructure network.

Newton Specialist Contractor [Stonehouse](#) were asked to waterproof four of these impressive vaults for the multinational service provider [KPMG](#), in order to turn them into useful commercial spaces.

The Solution

When waterproofing historic vaults such as these, the [Newton CDM System](#) provides the ideal solution as it is maintainable, requires minimal fixings and therefore avoids damaging the structure, and crucially is deemed as reversible should the structure need to be returned to its original condition in future.

As an experienced contractor, Stonehouse proceeded with an expert installation of a full CDM System to the tricky vaults, including:

- [508 Mesh](#) membrane to the walls, for a direct plaster finish
- [508](#) membrane and [Fibran XPS 500-C](#) insulation boards to the floor
- [Basedrain](#) channels to direct any captured water towards two [Titan-Pro](#) sump chambers, each containing two [NP400](#) pumps
- [Victron Inverter](#) and a [NorthStar battery](#) for reliable back-up power

The Result

Stonehouse completed an extremely complex and detailed cavity drain installation with precision, resulting in an exceptionally neat waterproofing system, and proving the benefits of using a specialist waterproofing contractor.



Stonehouse are experienced waterproofing installers.



Careful detailing was required in the tricky space.



"In over 30 years in the waterproofing industry this was one of the most complex and physically challenging projects I have been involved with. However, our installation team rose to the challenge and produced a first class installation of the high quality Newton products with pinpoint accuracy. We were also well within the program laid down by the main contractor, who stated that they were "impressed by the professionalism and commitment of all of the Stonehouse team on site". "

Richard Allen CSRT, CSSW
Senior Surveyor - Stonehouse

The Products

CDM SYSTEM

The most reliable waterproofing solution for any space below ground, combining decades of waterproofing experience with BBA certified membranes, bespoke sump and pump configurations, backup systems and control panels.

508 & 508 MESH

BBA certified, high quality cavity drain membranes as part of the CDM System, including meshed and non-meshed variants.

FIBRAN XPS 500-C

A 50mm, closed-cell insulation board, used as a spacer for the Basedrain drainage channels within the Newton CDM System.

BASEDRAIN

A range of products that collectively receive water from the cavity drain membranes and direct it to the point of discharge.

TITAN-PRO

A packaged sump system designed specifically to be used with the Newton CDM System.

NP400 PUMPS

A high performance pump suitable in manual or automatic versions, suitable for use with Victron Inverter 12/1200/50.

VICTRON INVERTER

A range of power inverters/chargers to ensure that Newton Pumping Systems continue pumping during power interruption.

NORTHSTAR BATTERY

Ultra high performance and premium quality batteries that use pure lead plates to delivery exceptionally long battery backup.



The finished cavity drain installation was exceptionally neat.



The network of vaults extends a long way beneath the streets of London.



Stonehouse utilised Newton's Recycling Service for waste membrane.

Newton Specialist Basement Contractors

Newton recommends that our systems are installed by one of our nationwide network of Newton Specialist Basement Contractors (NSBCs). Trained by Newton, NSBCs offer a full guarantee on the design and installation, and can act as Waterproofing Design Specialists.



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