

CASE STUDY

Project: Residential Basement,
Kensington Mews.
Date: 2023/2024
Client: Residence One Ltd
Eng: MGBC Group
Arch: Open Architecture



Scope

Creators of exceptional residences in London's most coveted addresses, Residence One expect those that work with them to share their distinction of excellence, their value of design and the importance of detail.

This project required much forethought in the waterproofing designs. Working with McGuinness Brothers Construction it was important at an early stage to ensure that the waterproofing solutions could be sequenced correctly to fit in with their foundations and steel structure to maintain continuity of system. Aswell as designing and installing the waterproofing to this underpinned construction basement, ASF were tasked to correlate the waterproofing and gas proofing codes to provide a grade 3 environment to BS8102:2022 whilst ensuring it met the requirements of gas characteristic situation 2 from BS8485:2019. ASF also always ensure that Radon protection is incorporated as per building regs part C and Building Research Establishment BR211 document.

ASF Waterproofing worked with Newton Waterproofing Systems who are also well trusted for the supply of high-quality products and systems with a network of industry qualified and specialist approved contractors.



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Solution

The design used the Newton Watstop Cementous Epoxy slurry as Type A internal barrier. It is very important that the substrate is fully prepared using dustless blasting techniques and mechanical grinding/scarifying to remove all laitance and surface contaminants. A simple pressure wash will not suffice. This enables the Type A barrier to become fully bonded to the concrete as required in section 8 of the BS8102:2022 so that it will resist negative or counter thrust pressure forces. Inside of this, a liquid gas barrier was applied which had been tested in accordance with the manometric method outlined in BS ISO15105-1:2007.

Internally again as a further combined waterproofing approach, ASF installed the Newton Type C system using 508R membranes that have also been tested for resistance to gasses. This system utilised minimal sealed fixings at a high level. When fully sealed with the sumps vented to air this creates a subfloor depressurisation zone for gasses as well as being the failsafe waterproofing system to manage any potential seepage through defects in the structure at any future time. The initial coats of Type A barrier and liquid gas membrane were applied to a prepared localised area before the steel structure as constructed. ASF then returned at a later date to make good, prepare and continue the application of the liquid applied coatings, ensuring they were lapped onto the previously applied areas behind the steels. This ensured continuity of system and also enabled us to take the waterproofing up to and above ground level to terminate correctly.

