

STRUCTURAL WATERPROOFING CASE STUDY Muller House, Bristol

RENOVATING A GRADE II LISTED BUILDING

Newton System 500 and Newton 805 Newlath used in this major redevelopment scheme

History

This project was undertaken by Westbury Holdings Limited and entailed the refurbishment of a Grade II Listed 19th Century orphanage in Bristol to create 66 two and three bedroom apartments.

The scheme comprised an envelope contract which included re-roofing, stone repairs, window replacement and upgrading, and internal finishes including structural waterproofing and damp proofing. All developments were in line with the listed building consent and design which required the the existing external features to be retained.

Methodology

The property was refurbished into apartments at both ground and basement levels with the basements used for both living space and storage.

Due to the age of the building, there was no existing damp proofing course in the ground floor walls and consequently the lower areas of walls were suffering from rising dampness. Due to the substantial thickness of these walls it would have been a futile exercise to try and install a chemical damp proof course, so approx 1000m² of Newton 805 Newlath damp proof membrane was applied to the ground floor walls. The wall membrane was then plastered to a smooth finish ready for decoration.

The building has extensive interconnecting basement areas. Newton System 500 was decided be the most trouble free and effective form of waterproofing and the system most suitable to be used in line with conservation requirements. 1700m² of Newton 508 and Newton 508 Mesh membrane was used within the basements and Newton Basedrain totalling around 325m was used to drain water naturally from the building.

Benefits

- Optimum use has been made of the available areas of the building
- The system is sympathetic to the structure and is easily reversible which conforms to the requirements of the heritage authorities.
- The System is covered by a 10 year insured installation guarantee from Protectahome Ltd
- Protectahome Ltd took full design liability for the waterproofing.
- The system is maintainable and conforms to BS8102:2009 Code of Practice for The Protection of Below Ground Structures from Water from the Ground.

NSBC Contractor: Protectahome Ltd



Muller House is a Grade II Listed Building in Bristol which used to be an orphanage



Newton 508 Mesh cavity drain membrane was fitted to the contours of the basement area, so met with listed buildings regulations



Plaster was applied directly to the Newton 508 Mesh. Newton System 500 was quick to install and trouble free