

CASE STUDY

Project: Residential Basement,
Hertfordshire.

Date: May 2024

Client: Relicpride Bulding Co ltd

Eng: Structures Lab

Arch: Allan Ellis Architecture



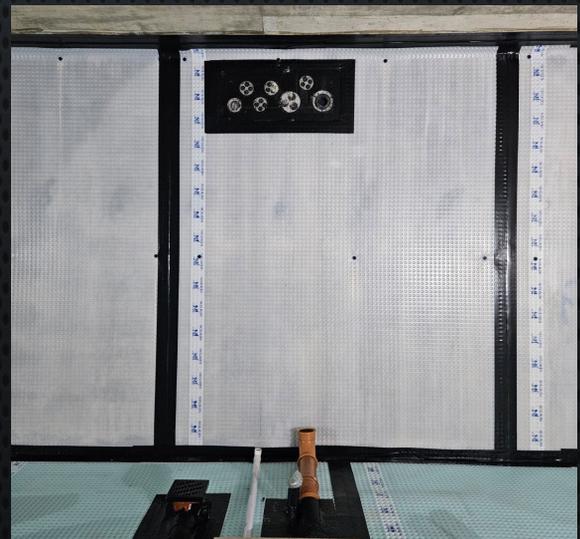
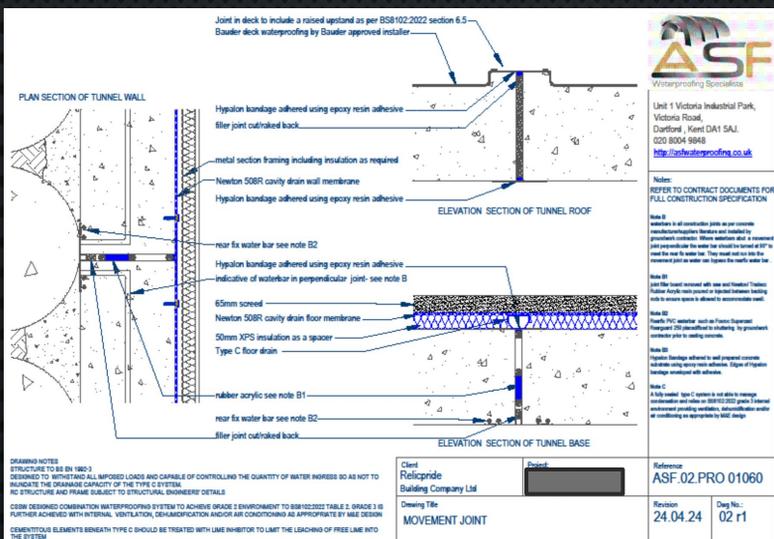
Scope

Well renowned building company and developer with a trusted reputation for delivering high quality builds was required by their existing private client to add an extension under the front and side garden with a link tunnel to the existing large residential house previously constructed to a high standard some years earlier by Relicpride. The garden excavations and RC structure were undertaken by John Coper Groundworks as per specifications of the engineer and architect and in keeping with Relicprides exacting requirements. ASF waterproofing were introduced to the project by 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.

The high-end basement required a guaranteed solution to provide a grade 3 environment to BS8102:2022 whilst providing Radon protection as per building regs part C and Building Research Establishment BR211 document.

The link tunnel required a soft joint to accommodate potential settlement movement between the new basement and the existing foundations.

BS8102:2022 recommends that service penetrations should be avoided, wherever possible. Where it is essential to provide such openings, special treatment around the penetration should be provided.



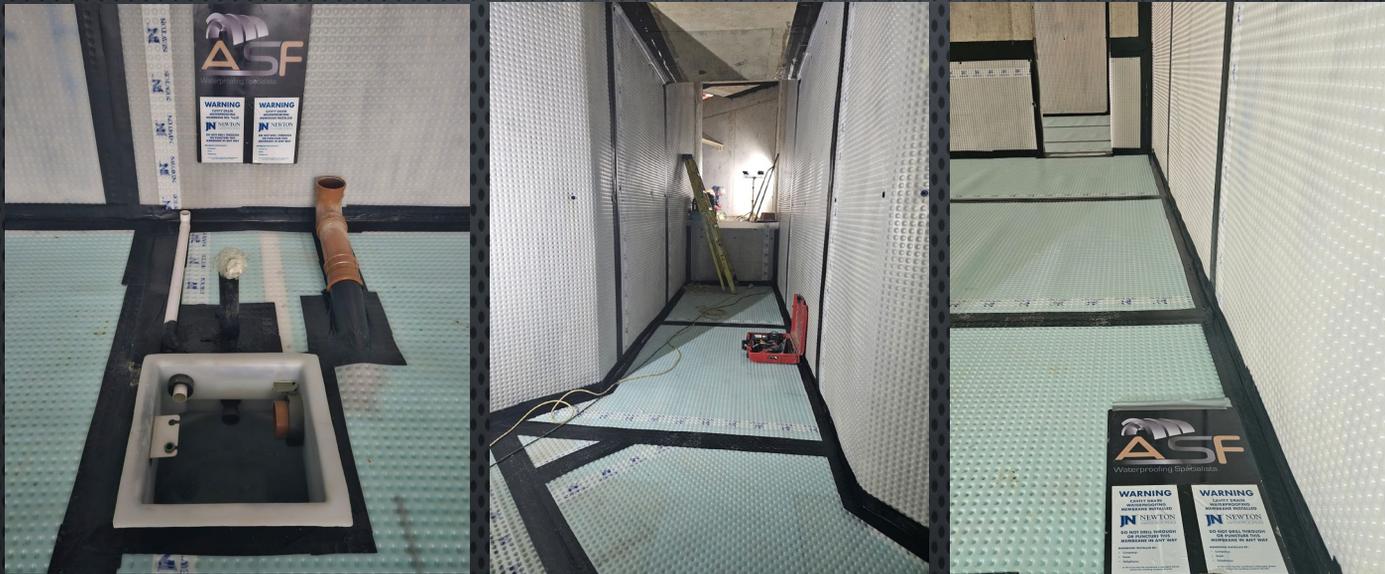
CASE STUDY



Solution

The main construction was designed by the engineer to BS EN 1992 to provide a Type B integral waterproofing system. At the movement joint John Cooper groundworks installed a PVC rear fix waterbar to base and sides of the cut and cover tunnel. ASF installed a hydrophilic rubber acrylic seal within the joint, once the filler material had been raked out, and then utilised the Newton Hydrocoat Monoflex flexible polyolefin both internally and also externally above the tunnel. The joint was raised with an RC upstand as per section 6.5 of the BS8102:2022 and the Monoflex bandage was lapped and sealed at the edges to the PVC rear fix waterbar to maintain continuity of system. The fully bonded deck waterproofing system was then lapped over the MJ system

Internally ASF installed the Newton Type C system using 508R membranes. When fully sealed with the sumps vented to air they create 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.



Testimony

Thank you for the works at Birchwood Manor.

Your design input and attendance to our requirements were exactly as required.

Your representative on site did a great job and is a fine representative for your company.

Eamon Coyle

Director

Relicpride Building Company Ltd