

Type B & C Waterproofing

BC-16 SPECIFICATION SHEET

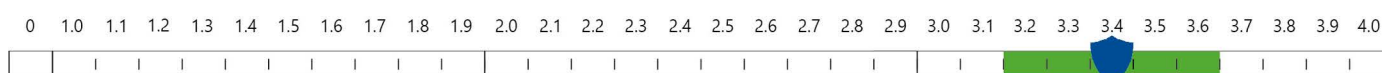
Combined Waterproofing RC Basement within Contig Piles

Rev 2.0 - 27 April 2021

BUILD

WALL CONSTRUCTION:
Reinforced Concrete (RC)

FLOOR CONSTRUCTION:
Reinforced Concrete (RC) Raft

NWI SCORE

This specification employs 2 forms of waterproofing (Type B - Integral Protection) to limit ground water ingressing behind the (Type C - Drained Protection) to ensure that the desired internal environment is achieved. The effectiveness of the waterproofing is dependent on the Type B structure being effective, especially at the construction joints.

**SPECIFICATION****TYPE B ANCILLARIES**

Install [Newton HydroTank System](#) to all construction joints and service penetrations.

TYPE A APPLIED TO WALLS

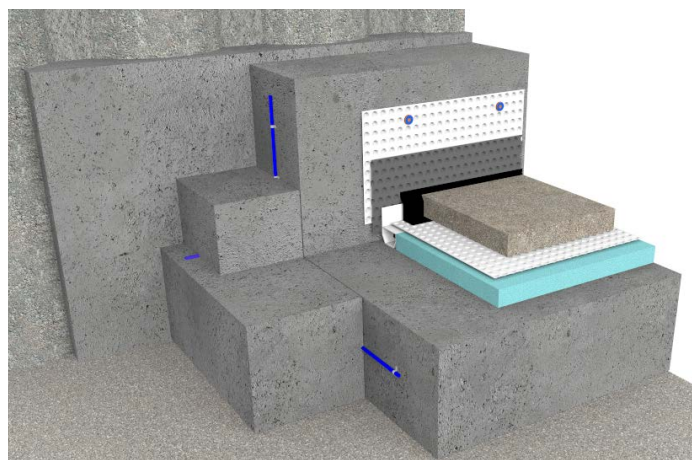
Waterproof the walls with [Newton HydroBond System](#) liquid applied membranes.

NEWTON WATERPROOFING INDEX

The Newton Waterproofing Index (NWI) is a unique scoring system that accurately assesses the level of risk and potential success of specific waterproofing specifications. The NWI score is awarded by a panel of experienced waterproofing design specialists and reflects the chances of success of that specification. The scoring system works in conjunction with the British Standard for waterproofing, which defines the three types of internal environments as Grades 1, 2 and 3.

NOTES

To improve the NWI score and provide a grade 3



environment install Newton CDM System as per Newton Specification Sheet AC-02.

The detailing of other building elements and termination details are available within the Newton Waterproofing specification library.

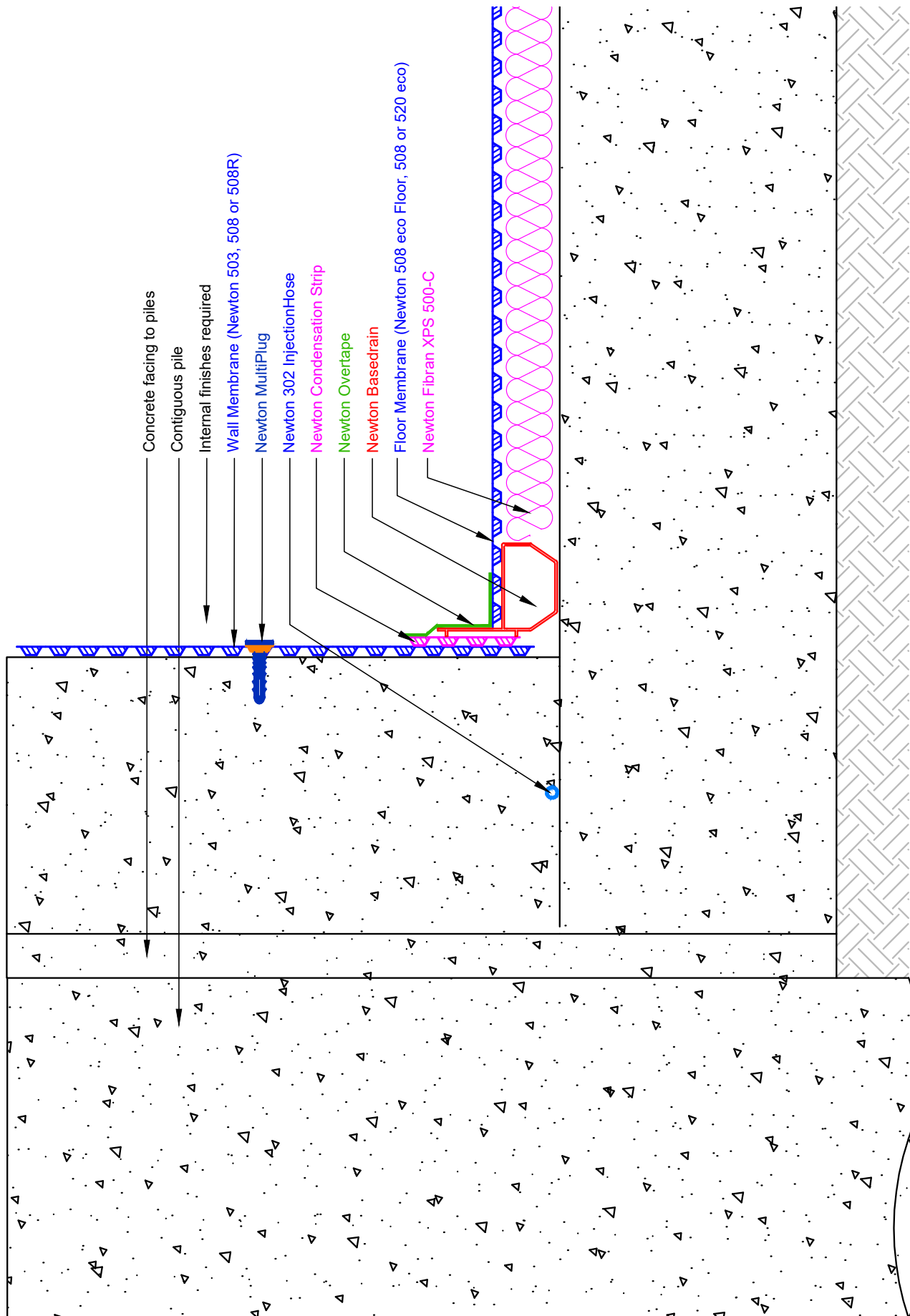
A-RATED INSURANCE

Tailor made insurance policies available depending on the specialist contractor and specification.

Any specification/advice provided is only valid if used with products supplied by John Newton and Company Ltd (trading as Newton Waterproofing Systems). Newton Waterproofing Systems reserve the right to update product literature at any time. Please always refer to our website for the latest versions.

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BC-16 SPECIFICATION OUTLINE

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The following specification provides 2 forms of waterproofing

| | |
|----------------------------------|---|
| Specification | BC-16 |
| Description | Complete waterproofing to RC structure. No gas protection. |
| Build | Contiguous piled walls, reinforced concrete walls, supported from an RC raft designed with flexural and through section crack widths limited to 0.2mm, and which conforms to BS EN 1992 |
| NEWTON HYDROTANK SOLUTION | All construction joints (day joints, shrinkage joints, movement joints etc) should be waterproofed with Newton System 300 waterbars to limit water ingress thorough joints in the structure. |
| Newton 302 Injection Hose | A high performance waterbar system installed within and used for sealing construction joints in earth-retaining and water-retaining concrete structures. |
| Preparation | None required |
| Application | Install the waterbar as described in the product datasheet Newton injection hose clips every 100/150mm. |
| Place Raft | Pay particular attention not to damage the 302 Injection Hose during vibration of the concrete. |
| NEWTON CDM SYSTEM | Maintainable basement waterproofing solution ideal for new-build basements and refurbishment projects. Comprises four components: Cavity Drain Membranes, Drainage, Pumps and Control Systems. Complies with the British Standard for Waterproofing. |
| Substrate Preparation | |
| Walls | Blockwork to be uniform and clean. Remove snots and debris. |
| Floor | Horizontal concrete surfaces should have a surface finish to should have a surface finish to at least Class of finish U3 and preferably to class U4 or U5 as documented in 'General Specification for Civil Engineering Works' section 14: 'Formwork and Finishes to Concrete', namely a 'Uniform, dense and smooth surface'. Floor to be no more than +/- 5mm over 2m in any direction and no more than 25mm over any dimension. Floor to be flood tested and depressions over 10mm to be filled with appropriate repair product such as Newton 908 LiquaBond mortar . Floor slab to be treated with Newton 906 Lime Inhibitor as per the product data sheet |
| Drainage Channels | Drainage channels placed above the slab, within a recess of Newton XPS, insulation. |

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BC-16 NBS CLAUSE

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The following document is to be read alongside the relevant Newton Waterproofing datasheets.

NEWTON E40 - NEWTON HYDROTANK SYSTEM

[E40 Designed joints in in situ concrete](#)**120 CONSTRUCTION/ MOVEMENT JOINTS GENERALLY****Newton 302 Injection Hose**

A high performance waterbar system installed within and used for sealing construction joints in earth-retaining and water-retaining concrete structures. When injected with injection resin, the material penetrates into the concrete surrounding the construction joint to permanently seal any cracks, capillaries, pores and honeycombing within the structure.

Newton 302 Injection Hose features micro-ports equally spaced over the entire circumference of the hose, and when injected with injection resin at 1-bar of pressure or above the microscopic ports open and the low-viscosity resin penetrates deeply into the concrete surrounding the construction joint.

The injection hose is compatible with both polyurethane and acrylic injection resins, and when installed and injected correctly Newton 302 Injection Hose improves the water tightness of the 'Type B' waterproof structure by sealing the joints and encouraging improvements in the quality of the concrete placement.

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[Please click here to download the full Newton 302 Injection Hose NBS Clause](#)

NEWTON J40 - NEWTON CDM SYSTEM

[J40 Flexible sheet waterproofing/damp proofing](#)**290A HIGH DENSITY POLYETHYLENE STUDDED CAVITY DRAIN MEMBRANE****Newton CDM System**

The Newton Cavity Drain Membrane (CDM) System is a maintainable basement waterproofing solution ideal for new-build basements and refurbishment projects. Comprising of four components: Cavity Drain Membranes, Drainage, Pumps and Control Systems, the Newton CDM System complies with the British Standard for Waterproofing and provides a Grade 3 habitable internal environment.

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[Please click here to download the full Newton CDM system NBS Clause](#)