



# 1 Hour RIBA CPD Seminar

Available as live video seminar  
or as a pre-recorded video



## Why MacLennan

Myself and my hugely experienced team have designed waterproofing systems for some of the largest, and most technically challenging projects undertaken in the UK. We design over 1000 systems per year have installed over 200 basements per year, every year for the last 20 years

All covered by our 10 million PI.

I was engaged as part of the committee rewriting the British Standard for basement waterproofing BS8102/22 which was published this year

I can show you how to protect your client, protect your company, comply with standards and insurers and deliver an outstanding project.

## Who are MacLennan?

MacLennan have been designing basement systems for over 30 years.

We have built up a reputation for supplying an honest and professional service.

As an independent company, we can choose the appropriate products to suit the large variety of properties we are called on to specify work for.

We design supply and install waterproofing systems.

Because we accept all of the liability, there is no split responsibility.

## Waterproofing design and installation

Benefit from MacLennan's years of experience.

Subjects covered:

- BS8102 / 22 design considerations by one of the authors
- Consideration before RIBA 3 technical design
- Legal precedence affecting design
- Cause of failed systems
- How to avoid pitfalls and be compliant & much more!

## How do we book?

Send us an email & one of our staff will be happy to handle the rest.

Contact us today at:  
[cpd@macleannanuk.com](mailto:cpd@macleannanuk.com) or

## Can we tailor to a specific project?

MacLennan are happy to discuss projects. Send us a drawing, a list of questions or scenarios, and we will talk you through them as part of the presentation

# Testimonials



Take a look at some of the great feedback our CPD presentations have received!

"Without exception, our engineers said that Ian's CPD was the best we have had, being both extremely interesting and useful. Please thank Ian for taking the time to come and talk to us, it was much appreciated by everyone."

**JDL Consultants**

"Ian delivered an engaging and informative presentation on a wide range of waterproofing systems, potential issues and solutions. We are looking forward to working with MacLennan waterproofing in the future."

**Abbey Pynford**

"The general feedback from around the office is simply that it was a very well presented seminar, one of the best we have had, covering a vast amount in the time available. Easy to follow and understand, informative, useful & worthwhile."

**Andrew Waring Associates**

"We have used MacLennan many times and have confidence in their advice, detail design, knowledge, support and installations. Their positive, one stop approach is really refreshing and their willingness to take ownership and responsibility sets them apart from their competitors."

**Ascot Design**

"All that attended the CPD found it both informative and educational. Lively debate was had by all parties and at no point was it regarded as a sales pitch. We look forward to further interaction on future projects."

**R Durnell & Sons**



# Project Resume

MacLennan investigate, design, supply and install waterproofing onto over 200 projects per annum. The average value is circa £40,000, the range is £5,000 to £2,500,000.

## Atlas Wharf

3 Arnhem Place, London, E14 3ST  
2018

Waterproofing installation total Value  
£232,000

A large basement deck repair to failed single ply membranes. MacLennan designed and installed a complete new deck system.

**Client / NHBC,**  
NHBC House, Davy Avenue, Knowhill,  
Milton Keynes, MK5 8FP

POC was Graham Franks  
gfranks@nhbc.co.uk  
0800 035 6422

## Project Bond

Gordon House, West Road, Chelsea,  
London, SW3 4SR 2016-2018

Waterproofing installation Value  
£565,000

A large double basement new build basement at Chelsea Hospital. Designed by MacLennan. Supplied and installed by MacLennan.

**Client / Walter Lilly & Co Ltd,**  
Waddon House, 283 Stafford Road,  
Croydon, Surrey, CR0 4NN

POC was Alex Clark  
alex.clark@walterlilly.co.uk  
07909 521 786

## Beaurepaire House

Boars Bridge, Bramley, Basingstoke,  
Hampshire, RG26 5EY 2018-19

Waterproofing installation total Value  
£343,000 between 2 contractors

Failed waterproofing. A very large new build basement with waterproof concrete and cavity drain. The whole system failed before fit out could begin. MacLennan had to investigate, Design remedial works and re waterproof the entire basement.

**Client / Sizebreed,**  
111 Power Road, Chiswick, London,  
W4 5PY

POC was Gavin Buckley  
Details U/A

## The Music Box

235-241 Union Street, London, SE1  
0LR 2017

Waterproofing installation total Value  
£42,704

A new build basement designed by MacLennan to comply with NHBC specification.

**Client / Willmott Dixon Housing Ltd,**  
44a Pentonville Road, London, N1 9BY

POC was Joseph McNamara Joseph.  
McNamara@willmott Dixon.co.uk  
07974 783 068

## Chelsea Barracks

Chelsea Bridge Road, Westminster,  
London, SW1W 8RG

Waterproofing installation Value 2.5  
Million

Very large new build basements at Chelsea Barracks. Carried out over multiple phases for multiple contractors working under MACE. MacLennan had organise and deliver the very large waterproofing package for multiple stakeholders.

MacLennan had to deal with a large area of full flooding carrying out all of the remedial work to assure no reoccurrence of flooding to a huge asset.

**Client / MACE**

POC U/A

## Athlone House

Hampstead Lane, London, N6 4RU

Waterproofing installation total Value  
£205,000

A large existing and new build basement. Waterproofing Designed by MacLennan , supplied by MacLennan, Installed by MacLennan

**Client / Knight Harwood Ltd,**  
Josaron House, 5-7 John Prince's  
Street, London, W1G 0JN -

POC was Mike Mossom 0203 971  
8596 mmossom@knightharwood.  
com / Maurice Wilson 07557 849 845  
mwilson@knightharwood.com

## Royal College of Music

Prince Consort Road, South  
Kensington, London, SW7 2BS

Waterproofing installation Value  
£150,000

Large concrete basement.  
Waterproofing designed, supplied,  
installed by MacLennan

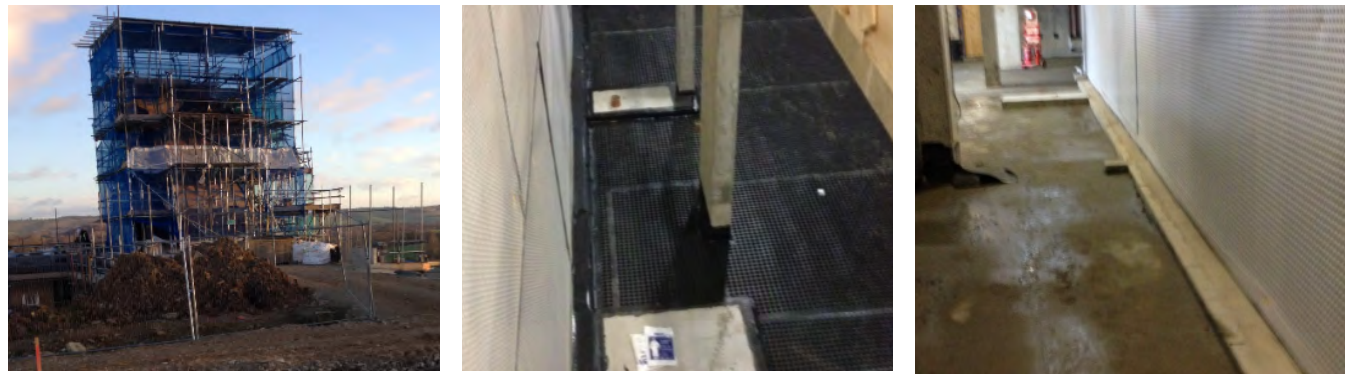
**Client / Gilbert Ash Ltd,**  
47 Boucher Road, Belfast, BT12 6HR

POC was Ciaran Begley  
07966 056 248  
Begley@gilbert-ash.co.uk  
& Marcelo Gallardo  
07790 655 121  
Marcelo.Gallardo@gilbert-ash.co.uk



# Caringwood

Designed by Architects James Macdonald Wright of Macdonald Wright Architects and Niall Maxwell of Rural Office for Architecture, Caring Wood went on to win RIBA House of the year 2017 and was featured on the popular TV show Grand Designs.



## Introduction

Inspired by the traditional oast houses of Kent, the agricultural buildings for kilning hops, Caring Wood revives local building crafts and traditions including locally sourced handmade peg clay tiles, locally quarried ragstone and coppiced chestnut cladding. The house comprises four towers, with interlinking roofs like markers in the landscape, echoing other oast houses in the distance.

MacLennan were employed to install a Waterproofing system for the project, with one of our design team advising on Waterproofing from the start of the design stage.



## Methodology

At the clients request MacLennan designed a cavity drain waterproofing system for the internal area of 1,443 m<sup>2</sup> that was operated by gravity instead of the usual pump based system.

Inspection ports were hidden at intervals around the system so that it could be maintained without interfering with the design of the interior. The system was installed by MacLennan's fully trained and NVQ qualified technicians.

The cavity drain system is a water management system. It is the most effective and reliable form of Waterproofing in most situations.

## Benefits

The Cavity drain membrane system is easily and quickly repaired and maintained.

## Result

The work was carried out by MacLennan in the agreed time frames and was guaranteed for a period of 10 years. The design of the Waterproofing is covered by MacLennan's 10 million PI and covered by our £500,000 insured warranty.

# Houses of Parliament

MacLennan was employed by Shaca to come up with a guaranteed scheme for a new build basement at the houses of parliament, they were engaged to carry out a site survey and to specify the necessary work to provide a guaranteed system.



## Methodology

The MacLennan team designed an external waterproofing system with an internal cavity drain and a polyurea roofing system to guarantee it was waterproofed to a high standard. An 8mm ventilated cavity membrane was installed from floor to ceiling, then a lime inhibitor was applied to the floor area followed by a 20mm membrane and drainage system. The roof deck was coated with MacLennan Polyprufe primer and polyurea, then a drainage membrane was applied on top.

## Result

The final outcome ensured a waterproof basement that complies with BS8102 2009 and was guaranteed against water ingress. Benefits: The whole contract was designed and carried out by MacLennan under their insurance cover and PI. The whole system was guaranteed by MacLennan.





# Maroush, Park Royal

MacLennan was employed by Toureen Mangan to design, supply and install the waterproofing for the basement of the fine cuisine institution, Maroush. The MacLennan team supplied design expertise and detailed all aspects of the waterproofing with the architect, engineer and contractor.



## Methodology

The MacLennan design team quickly came up with a scheme to supply and fix a ventilated cavity membrane system from floor to ceiling while using lime inhibitor to protect the system. A hydrodrain channel with inspection ports was then installed around the wall floor join, leading to a hydrosump-pro system. The properties lift pits were then waterproofed with a cementitious coating system

## Result

The final outcome made certain that the property was waterproof, a mixture of different systems ensured that all aspects of the large former ambulance station were covered. The whole contract was designed and carried out by MacLennan under their insurance cover and PI and subsequently guaranteed.



# Wembley Stadium

MacLennan was employed by Amery to apply a specialist deck waterproofing system to areas of Wembley stadium, a MacLennan surveyor visited the site and designed a suitable guaranteed waterproofing solution for the project.



## Methodology

The MacLennan team designed a system using a liquid waterproofing membrane material, the deck was coated with this material which cures to form a tough seamless rubber-like waterproof layer. All pipe penetrations were detailed in the same material.

## Result

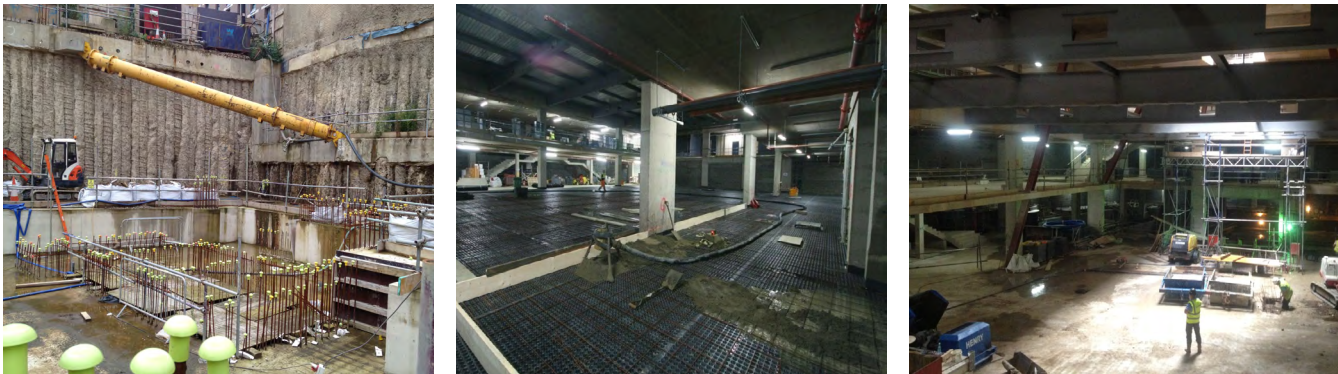
The final outcome ensured a waterproof deck with a seamless watertight bond to the substrate. The whole contract was designed and carried out by MacLennan under their insurance cover and PI. The whole system was guaranteed by MacLennan.





# Hilton Bankside

MacLennan were employed to design, supply and install an extensive waterproofing system to a luxury hotel in Southwark, MacLennan surveyors attended design workshops and worked out the best solution possible for the project.



## Methodology

The MacLennan team designed a cavity drain system using a ventilated membrane from floor to ceiling, completed with a hydrosump-pro system with control panels and battery backups. lime inhibitor was used to protect the system from lime damage.

MacLennan also supplied and laid insulation onto the structural floor slab prior to floor membrane being laid, using a special pool grade insulation for the swimming pool areas.

## Result

The final outcome ensured that the building was watertight, using a combination of different products. The sump, backup and control panel systems give the owner of the building reassurance and assured reliability.

Additional benefits: The whole contract was designed and carried out by MacLennan under their insurance cover and PI. The whole system was guaranteed by MacLennan.



# 48 Bishops Avenue

A very large detached property. Basement waterproofing and gas proofing supplied and installed by MacLennan to comply with all codes of practice and warranty provider requirements for SHH Architects.



## Introduction

Phase one of the project was to fit external water and gas protection Membranes, Phase two of the project will be to fix the internal cavity drain.

## Methodology

Type a - isolate the rc structure from the Ground water with an external BBA approved barrier Membrane.

Finally, apply a gas proof cavity drain membrane system internally including a safe means of drainage to remove any ingressing water.





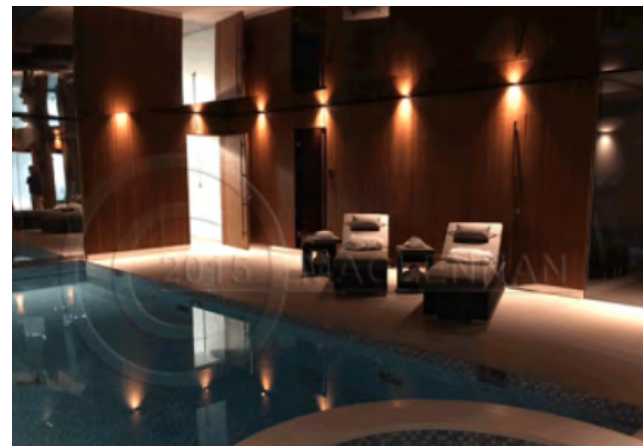
# Bishopswood

MacLennan was employed by Cardy construction to provide a suitable waterproofing solution for two refurbishments with new build basements and one new build property.



## Introduction

MacLennan arranged a site visit and surveyed the area to provide an accurate specification for the new build cavity drain basement waterproofing system.



## Methodology

The MacLennan team designed an internal cavity drain system for the existing structures, and a Polyprufe deck waterproofing system with a drainage membrane on top for the new build property, with a cavity drain system installed inside.

## Benefits

The Cavity drain membrane system is easily and quickly repaired and maintained.

## Result

The final outcome was that all structures were waterproofed in compliance with BS8102 2009 and guaranteed against water ingress. The entire contract was designed and carried out by MacLennan under their insurance cover and PI.

# Wentworth Manor

This large new-build property in Surrey had a very large basement area which needed to be waterproofed to meet BS8102 requirements, the British Standard for the Protection of Structures Against Water From the Ground.



## Introduction

Because it is not possible to determine the amount of potential water pressure surrounding a structure, BS8102 tells the designer to expect a head of water against the structure. In addition, BS8102 requires that all waterproofing is maintainable and repairable.

The MacLennan Basement Waterproofing Design Team worked closely with the client. After consultation the Macleannan Basement Waterproofing Designers put forward a comprehensive basement waterproofing system design, that meet with all of the requirements for this prestigious new build basement.



## Methodology

MacLennan were commissioned to design and install a Cavity Drain Waterproofing System. System 500 was deemed the best range of products for the project as it provides a maintainable waterproofing solution – and thus meets the requirements of BS8102.

Cavity Drain Membrane was applied to all internal walls, and ingressing water was collected into the Basedrain channels throughout the perimeters of the wall/floor junction and pumped out to safe drainage using the Titan Pro pumping system.

## Benefits

The complete system is guaranteed for a full 20 years by MacLennan. If the system is inspected and serviced annually the guarantee can be extended every 10 years for a further 10 year period. The system is also very fast to install and there is no drying period.

## Result

MacLennan worked with Ali Galvin Homes to come up with a risk free waterproofing strategy, to waterproof the very impressive and luxurious property that they were constructing.” – Ian MacLennan

All work was carried out with in budget and with in the agreed time constraints, the property is completely protected against water ingress.