

14 May 2026
Our ref: 32589
Survey Date: 2026-04-23

Mr. Zayn Saleemi
The Brightwise Group
39 Broughton Street
Manchester
M8 8LZ

Dear Zayn,

The Reed Hotel, Rochdale, OL16 1DF

Re: Listed Building Basement

Further to our meeting at the above, please find below the detail of our findings and recommendations in respect of structural waterproofing measures.

This report is for the sole and confidential use of the client and no liability will be accepted in relation to third parties. Any such person relying on the survey report does so entirely at their own risk.

Contents

1. Property description and present conditions.
2. Design strategy & principal considerations.
3. Site evaluation and risk assessment.
4. Instructions and objectives.
5. Proposed waterproofing design and installation considerations.
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7. Drawings.
8. Terms, guarantees & insurances.

1.0 Property description & present conditions

- Property type: Grade 2 listed building, former hotel and public house, of brick construction with stone detailing. Proposed for conversion to apartments.
- Below ground wall construction: Solid brick masonry retaining walls. Walls are mostly painted but with some areas of direct applied plaster/render.
- Below ground floor construction: Stone flagged floor with some thin section concrete toppings in areas.
- Existing waterproofing: No specific measures in place.

(Present conditions are as identified within the design strategy section).



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Trace Basements & Trace Remedial Building Services are Trading Names of North West Damp Proof Services Ltd.

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2.0 Design Strategy Discussion

We would propose the installation of a Type C 'drained protection' waterproofing system, the general detail of this follows within this report.

This system designs out any existing or future issue of groundwater penetration through the earth retaining walls and floor.

(Detailed strategy subject to feedback on information provided).

3.0 Site Evaluation and Risk Assessment - water:

As per the below (BS8102) we have to assume risk of water pressure coming to bear.

(Refer to design strategy section for discussion of site conditions).

5.1.2 Risk assessment

NOTE 1 The principal risks with respect to water ingress into structures are the external environmental conditions.

A risk assessment should be carried out which determines the long-term water pressures, the effects of surface water infiltration and the use of external drainage and cut-off walls.

The risk assessment should also take into account:

- a) the potential effects of climate change, burst water mains, flooding, defects in underground sustainable urban drainage (SUD) systems and defective soakaways and sewers, adjacent trees, sulfates, radon, methane and other ground gases and contaminants; and
- b) where external drainage is proposed, the effects of drawdown on adjacent structures, the potential silting of drainage and biofouling issues.

Even when the site investigation indicates dry conditions, the risk of some waterlogging (see Note 2) in the future should be assumed.

NOTE 2 Even in a permeable subsoil, groundwater requires time to drain away and this can result in limited pressure periodically coming to bear against the structure.

Site evaluation - Radon: BS8102 / BRE 211 guidance

BS8102 (2009) Code of practice for protection of below ground structures against water from the ground, also advises that ground gases be considered as part of the equation when dealing with structures below ground.

Building Research Establishment Guide 211 (2023) provides guidance in respect of radon gas, which is a natural colourless, odourless radioactive gas, that forms by the radioactive decay of small amounts of uranium that occur naturally in all rocks and soil, see –

<https://www.ukradon.org/information/>

Most radon moving out of the ground will move to atmosphere, however it can access buildings, and basements are considered to be prone to receiving radon because they sit within, rather than on the ground. In an existing basement, testing can be undertaken to identify radon levels – see: <https://www.ukradon.org/services/orderdomestic>
<https://www.ukradon.org/services/orderworkplace>

There are maps at <https://www.ukradon.org/radonmaps/> which indicate radon potential within a given area. These figures are derived from British Geological Survey information, and test results

from properties located within the 1km grid squares, which divide up the radon maps. There can be scope for variation within properties located within each 1km².

A search of this postcode is included below.

6.12 Basements or occupied spaces below ground

It is important to ensure that basements and other occupied spaces below ground level are suitably protected against radon. These areas are more at risk because walls are in contact with the ground as well as the floor. For a house with a basement under the entire house, the area in contact with the ground could be several times that of a similar house without a basement. This, coupled with reduced natural ventilation below ground level, increases the risk of elevated radon levels. All basements are at increased risk of elevated levels of radon, regardless of geographic location (see also Section 6.14, 'Monitoring radon in completed buildings and extensions').

Where a new basement is to be created, or an existing cellar converted, waterproofing will be required. A well-constructed waterproofing should be designed to protect against radon also. Guidance and recommendations on basement waterproofing are contained in BS 8102:2022 'Protection of Below Ground Structures Against Water Ingress, which also advises that radon be taken into account in the design and implementation of waterproofing schemes. Below-ground waterproofing and radon management are specialist activities that can conflict. It is recommended that dual protection systems are designed and installed by specialists who are suitably qualified in both waterproofing and radon management.

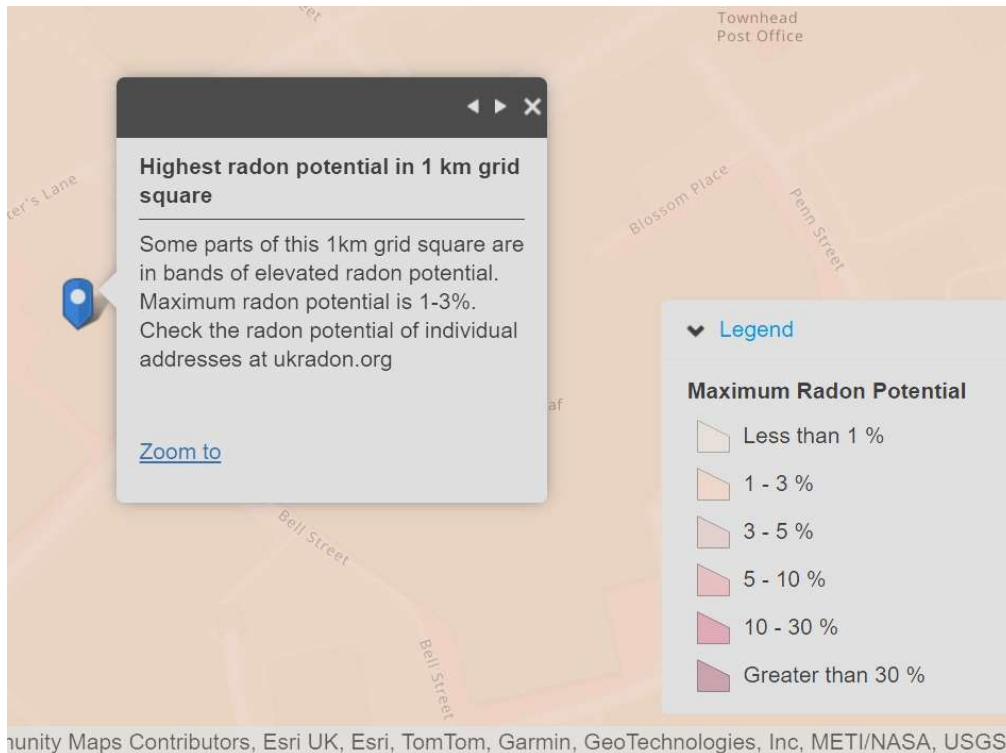
Internally located cavity drain membrane systems are often used to provide below- ground waterproofing. Some cavity drain membrane systems are certificated as providing an effective membrane to radon gas. However, using these to line the internal surfaces of a basement could cause the gas to be simply displaced up the cavity into the ground floor accommodation. It is therefore important to ensure that the basement wall membrane fully closes the cavity at its head where it meets the radon membrane within the ground floor or external cavity wall above ground. The cavity behind the membrane could be used later as part of a subfloor depressurisation system.

Radon maps search:

A radon maps search indicates a maximum radon potential: 1 - 3%

Based upon the above guidance, we show a separate cost for the inclusion of radon measures as summarised below:

- Radon specific cavity drainage membrane (700g/m² instead of 500g/m²).
- Double butyl tape details on all seals.
- Ventilation pipe from sump (allows addition of mechanical fan subject to testing and high readings – fan not allowed for by Trace at this stage).
- Tracer gas integrity testing of membrane system (by checking the installation, it reduces the chance of having to add a mechanical fan at a later stage).



Inclusion of radon protection

Based upon the above guidance, we show a separate cost for the inclusion of radon measures as summarised below:

- Radon specific cavity drainage membrane (700g/m² instead of 500g/m²).
- Double butyl tape details on all seals.
- Ventilation pipe from sump (allows addition of mechanical fan subject to testing and high readings – fan not allowed for by Trace at this stage).
- Tracer gas integrity testing of membrane system (by checking the installation, it reduces the chance of having to add a mechanical fan at a later stage).

Site Evaluation - flood risk check

As per the above, BS8102 (2022) also advises Designers to consider scope for flooding above ground. An assessment of this post-code indicates:

<https://check-long-term-flood-risk.service.gov.uk/postcode>

Surface water [More about your surface water flood risk](#)

Yearly chance of flooding

Very low Low Medium High

Yearly chance of flooding between 2040 and 2060

Very low Low Medium High

What surface water is
Surface water flooding is sometimes known as flash flooding. It happens when rainwater cannot drain away through normal drainage systems.
[▶ Why surface water flooding is a problem](#)

Rivers and the sea [More about your rivers and sea flood risk](#)

Yearly chance of flooding

Very low Low Medium High

Yearly chance of flooding between 2036 and 2069

Very low Low Medium High

What makes rivers and sea flooding more likely
Low-lying areas that are close to rivers or the sea are more likely to flood when water levels rise.
This information takes into account any flood defences.
[▶ Why flood defences cannot completely prevent flooding](#)

4.0 Instructions and Objectives

- Client scope

I include for specialist waterproofing works only with associated general building works being undertaken by others.

Please refer to the attached drawing for exact scope and extent of work priced.

- Clarification of instructions:

We seek to provide detailed information in respect of our proposals, however if we have misinterpreted client instructions in any way, please advise prior to a start on site.

Statutory processes

Please note that we do not allow to manage any statutory processes such as local authority building regulations applications, or obtaining listed building consent. We regularly work with and assist third party consultants managing such processes, where this is required.

Environmental grade

Grade TBA:

The environmental grade provided here will be influenced by the options taken. Note that we can only guarantee grades 2 & 3 (no dampness from external source / ingress to interior) where all wall and floor substrates are membrane lined. Partial linings equates to a grade 1a/1b environment. Note that to achieve grade 3, suitable environmental controls must be installed and employed to manage vapour within the space to prevent issues of condensation. Subject to limitations as below.

Table 2 — *Waterproofing protection – Grades of performance for below ground spaces*

Grade ^{A)}	Performance definition
1a	Seepage ^{B)} and damp areas ^{C)} from internal and external sources are tolerable, where this does not impact on the proposed use of below ground structure. Internal drainage might be necessary to deal with seepage.
1b	No seepage ^{B)} . Damp areas ^{C)} from internal and external sources are tolerable.
2	No seepage ^{B)} is acceptable. Damp areas ^{C)} as a result of internal air moisture/condensation are tolerable; measures might be required to manage water vapour/condensation ^{D)} .
3	No water ingress or damp areas ^{C)} is acceptable. Ventilation, dehumidification or air conditioning necessary; appropriate to the intended use ^{D), E)} .

^{A)} The agreed grade should meet with the client's expectations for the intended use of the below ground space. Reducing the grade could increase the risk of not meeting the expectations of the client for the intended use of the below ground space.

Localised scope:

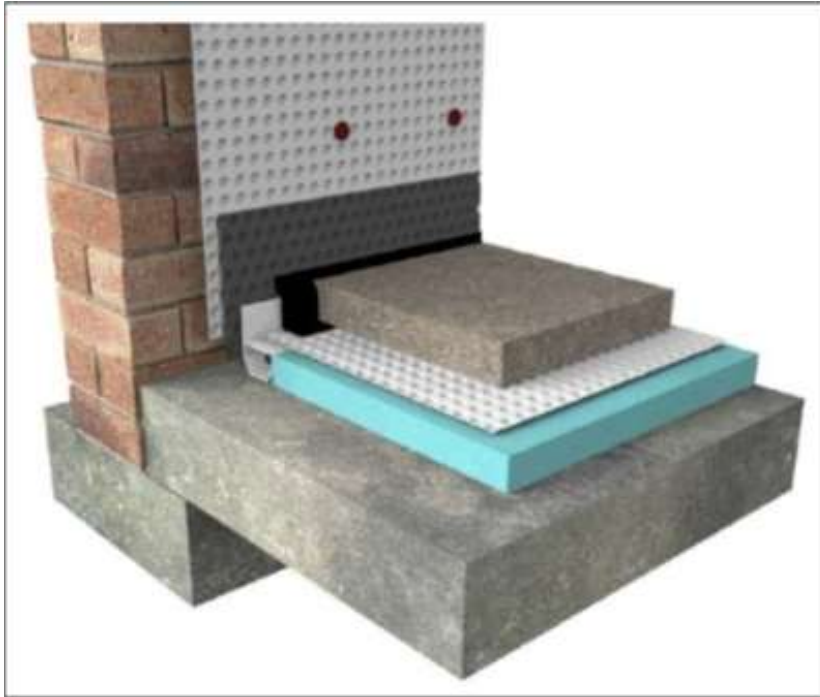
Please note that where the scope of our work is localised and does not include all wall/floor areas within the below ground, or adjoining areas, that the areas beyond our works remain unprotected and at client risk. We can only protect and guarantee that which we treat.

5.0 Proposed Waterproofing Design and Installation Considerations

• Type C Drained Protection:

We propose the installation of a Drained Protection (commonly referred to as 'cavity drainage') water control system comprising cavity drainage membrane vapour barriers installed to walls/floors (see drawing for scope proposed), in association with a planned series of drainage channels concealed within the floor construction beneath, linked to a sump pump system(s) or other reliable means of discharge.

The system functions by removing penetrating water using the drainage channels and means of discharging water, so that water cannot build up and pressure upon the installed membrane linings. If water pressure never comes to bear upon the membranes (because it is continuously removed), then there can be no movement of water past the membranes and a dry internal environment is created.

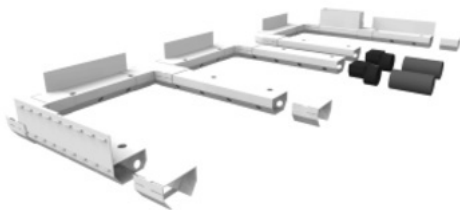


Type C Cavity Drainage Waterproofing Considerations

Water Collection/Floor:

We need to install an accessible maintainable drainage channel within the depth of the floor construction, which will collect any penetrating water, diverting it to the point of discharge. This would be included at the wall floor junction around the perimeter of the space, in association with cross-floor channel runs if/where necessary (see drawing for exact extent priced).

The means by which the drainage channel is integrated into the floor construction may require further consideration, in that there are varied ways in which this can be achieved.



Sequencing - structural alterations

BS8102 (2022) makes reference to the risk of defects in waterproofing caused by follow on trades (see extract below):

We therefore ask that any structural works/alterations be completed prior to installation of Trace membranes within those areas. This is to avoid damage to and blockage of the Trace drainage system with associated warranty and repair cost implications.

4.3.2 Defects and remedial measures

An ideal waterproofing solution would be defect-free. However, it should be taken into account that defects might occur in the waterproofing, which then, if subjected to water pressure, could result in the required internal environment not being achieved.

NOTE 1 These defects include the following:

- a) defects owing to design;
- b) defects owing to poor workmanship;
- c) inappropriate use of the materials being used and defects owing to the specific properties of the materials being used; and
- d) defects caused by follow-on trades and site operations.

NOTE 2 Reference to "defects" does not apply to normal designed flexural cracks or surface crazing in concrete elements but only to cracking, which might need to be locally sealed.

The construction methods, installation personnel, materials and protection thereof, used to realize the design, should be such that the defects in all of the above are avoided.

Channel in the insulation space detail

To understand this detail, it is necessary to understand how cavity drainage waterproofing functions, specifically in respect of the floor. The proposed cavity drainage floor membrane (which provides a dry floor) must always be installed above the level of the drainage channels, since it is the channels removing water which prevents water from building up and pressuring on that membrane. No pressure equates to no penetration and a dry environment is created and maintained.

Where insulation is proposed within the new floor build-up, the drainage channels can be placed directly onto the raft/slab (avoids cutting chases/minimises disturbance of structure), then with 50mm of a specific insulation material laid over the raft/slab and butted up against the channels.

The cavity membrane is then installed over the insulation, so that as per the above, it sits above the level of the drainage channel. The insulation is acting as a 'spacer' to lift the floor membrane above the level of the channels.

We employ a high density extruded polystyrene closed cell insulation, suitable for installation external of a basement shell, i.e. capable of permanent submersion in water as confirmed by the material manufacturer. This also includes a slot detail in the underside of the insulation providing means for water to move beneath this.

We confirm that the insulation is dimensionally stable and compliant with EN 1606. Where combined with our Eco-floor membrane, it will support a load of 1.65 tonnes per square metre (if higher loads are required, please advise and we can design accordingly).

The drainage channels that the insulation spacer is placed adjacent to, can develop a maximum of 50 mm of water pressure when at full capacity. To prevent flotation of the floor the floor build-up over must exert a force (weight) that is greater than 50 mm of water pressure. The weight is calculated by multiplying the density of the floor elements by the height of the floor elements. For example screed density is 1.7. Multiply by the thickness: $1.7 \times 65 \text{ mm screed} = 110 \text{ mm}$. Weight of screed is twice the weight of the water pressure. Where a floating timber floor is formed over, the insulation must be mechanically fixed, with 5x fixings per board.

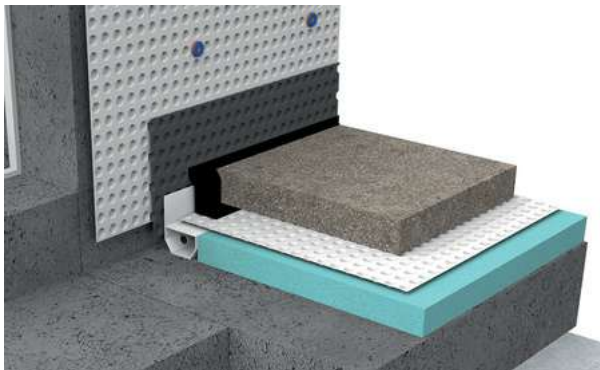
NB: Where standing water is present, for example from flood testing, rainfall (pre-weather-tight), or ingress, there can be scope for floatation of insulation prior to installation of screed, which then loads the insulation.

Where greater than 50mm depth of insulation is required, insulation detailing is to be discussed and agreed. Note that 50mm of insulation may or may not meet the required U value for building regulations and we ask that those responsible for thermal design consider and comment on this proposal.

Where insulation spacer detail is proposed in association with a new floor slab, those forming the new floor slab should seek to form this as flat and level as possible, this to limit scope for ponding. Certainly the area of the sump system/point of discharge should not be a high point.

Specification: 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 or over to be filled with appropriate repair product such as Newton 908 LiguaBond mortar (or alternatively form shallow chases). Where the channel is installed within the insulation space, part of the installation process involves flood testing the floor slab to prove that water will flow to the point of discharge. In the event that we deem it necessary, we will adjust the levels/falls minimally either by infilling areas of significant ponding, or by forming a shallow chase detail through highpoints to encourage water flow to the point of discharge.

Where channel is installed in the insulation space, cross-floor channel runs/positions are influenced by floor flood testing. A source of water must be available to facilitate this.

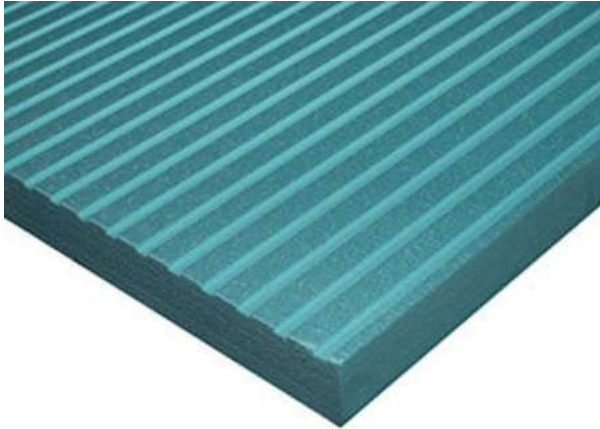


Trial holes to confirm floor build up

We do need to understand what the makeup and depth of the existing floor construction is here, could we ask that you undertake some investigation of the floor construction and advise findings.

Thermal requirements

One layer of 50mm Fibran insulation is proposed. Note that 50mm of XPS insulation may or may not meet the required U value for building regulations and we ask that those responsible for thermal design consider and comment on this proposal.



Depth of floor build-up - membrane system

8mm dimpled cavity membrane.

Depth of floor build up - Insulation

Depth of insulation – 50mm Fibran (one layer).

Lime inhibitor

Water moving over or through cracks in concrete can leach salts from this, which can accumulate within drainage based waterproofing systems, increasing the maintenance requirements over time. The extent of salts is influenced by the nature of the structure, with some types having greater implication versus others.

Free lime salt deposits are caused by water moving over/through concrete and dissolving calcium hydroxide from the matrix. On contact with the atmosphere the calcium hydroxide reacts with carbon dioxide to form calcium carbonate, which is precipitated as a solid deposit when the water evaporates.

To lessen the effect of this, we allow to spray accessible surfaces of new and existing concrete with a proprietary anti-lime treatment, which acts to lock in the salts within surfaces treated.

Drainage channel inspection/service ports

British Standard 8102 Code of practice for protection of below ground structures against water ingress requires that a system should be accessible to allow inspection and maintenance. This is achieved by the installation of ports which allow the system to be flushed through and cleaned when required.

The inspection ports have to remain accessible after the work is completed. There are various details for achieving this. Please talk to our technical staff for further advice. It is the responsibility of the client to ensure the following trades do not conceal the inspection ports.

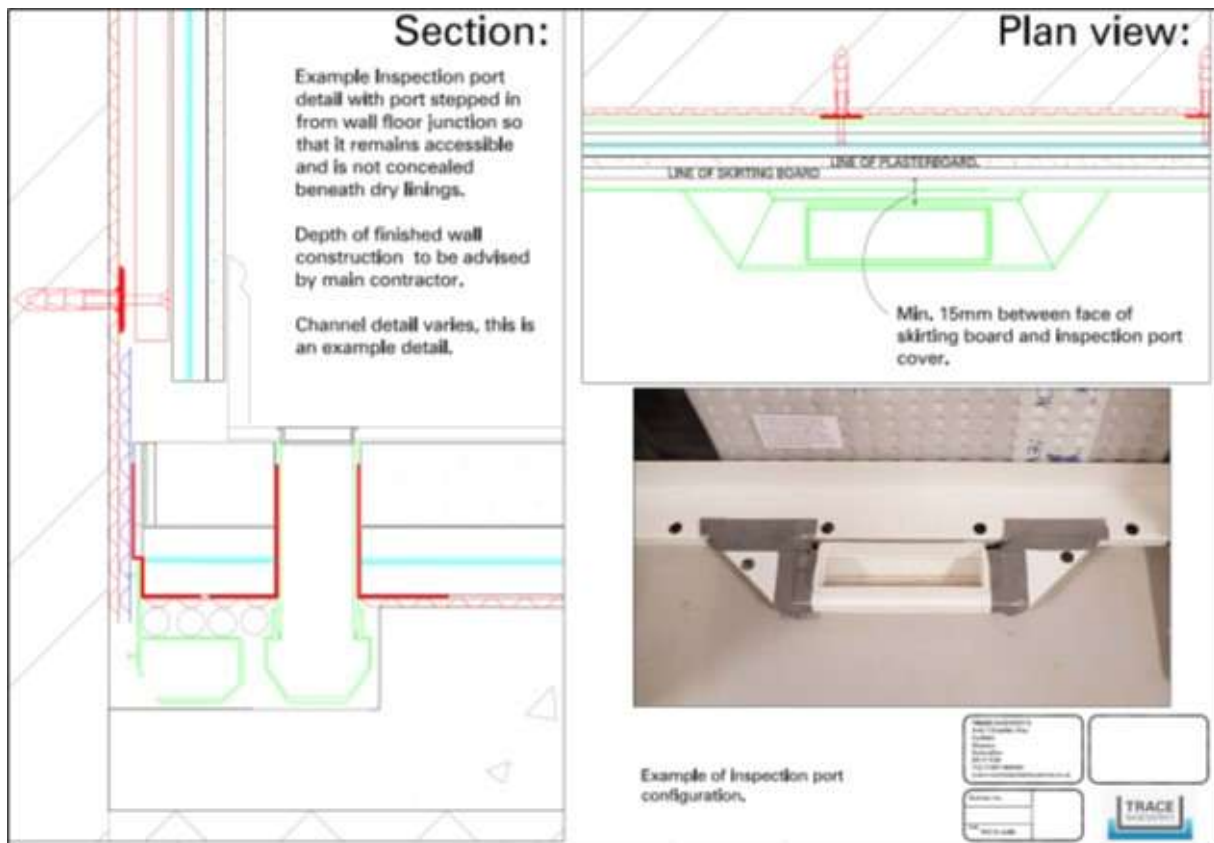
All drainage systems rely on servicing. The main advantage of the cavity system is that it is serviceable. Trace offer to service the sump pumps and channels. This servicing guarantees that

the system will work. Failure to have servicing carried out can affect the manufacturer pump guarantees.

With regard to number and location of ports, these are proposed on the attached layout drawing, however there is flexibility and positions can be adjusted, but this should be discussed with the system designer (author of this report). If we receive no comments, ports will be installed as per the drawing.

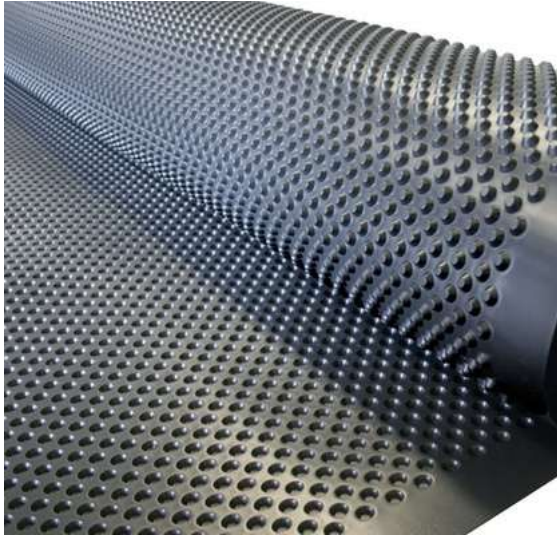
The inspection port cover can be plastic and wholly covered over by finishes (while still leaving access), or as an alternative we have had an aluminium cover machined which is deeper so can receive finishes within the cover, and can be set at top of finishes level, where you would then see the aluminium edge of the cover. Note that aluminium port covers are a priced option within the quotation. Please also note that there can be a lead time of a number of weeks on these ports, and that the decision to include them is best taken, at an early stage.

Image below includes an example section detail and may vary in practice.



Floor membrane proposed

The cavity drainage DPM (damp proof membrane) isolates any moisture in the slab or channel system from the living space over. We would employ an 8mm deep (black membrane diamond stud pattern) cavity drainage membrane in this case. Please see attached drawing for the extent priced.



Wide profile physical DPC detailing

We have shown wide profile DPC details on the attached drawings, which in practice involve the installation of physical DPC's that are wide enough to leave a flap extending beyond the walls, which then subsequently allows the internal cavity drainage membranes to be sealed to that DPC, for continuity of protection.

The key with this important detail, is Site Agents/builders recognising the requirement and then ensuring that the brick layers build in the right materials at the right locations.

We can either supply 2m x 20m rolls of a high compressive strength 1mm thick membrane which can be cut to size, or high load DPC (Newton 809) on smaller rolls available in a variety of sizes. We generally prefer the 809 DPC, because of its suitability for use with radon protection.

Please refer to drawings but example details include, internal wall isolation - new masonry walls are isolated as they are built so they do not have to be lined with membrane afterwards, and forming links to perimeter DPC/cavity tray details.

Protection of Floor Membrane:

Floor membrane must be protected with materials laid over.

As a rule we require involvement in whatever is laid over the cavity DPM, as we must ensure that there is no damage to this, prior to it being concealed. If insulation is laid over, we install this. If screed is laid (by others), we would check the DPM just before it is laid, and would have a presence on site while it is being laid. If a floating timber floor is required, Trace would install this.

Build-up over Floor Membrane:

Screed over Cavity Membrane:

Typical screed specification over would be minimum 65mm fibre reinforced (on the basis of it being unbonded), however please take advice from your screed supplier/installer on appropriate depth for your particular build-up (inclusion of under-floor heating or otherwise etc.).



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Screeding Contractors must be advised of the fact that they are working over a DPM and that care must be taken not to damage it, e.g. where the screed is pumped in a pipe, couplings must not be dragged over the membrane because adhesive tapes may be damaged.

Where the membrane is laid in areas that are a thoroughfare to other areas of the site, it is the main contractor's responsibility to lay and maintain protection boards to protect the DPM, and to minimising foot traffic over the membrane DPM. Trace can quote for this but you must advise us of proposed access/foot traffic routes prior to a start and work being agreed.

Screed should be laid as soon as possible after the cavity membrane DPM is laid, this to minimise potential foot traffic over (the ideal is no foot traffic over membrane).

It is the main contractor/clients responsibility to advise Trace when the screed is proposed so that we can arrange to attend and inspect the DPM just prior to screeding - we require one weeks' notice.

If a wet system under-floor heating is proposed in the screed, it must be installed using a floating clip-rail system that avoids any requirement to fix heating pipes through the DPM. You must allow for the DPM to be inspected by Trace just before screed is laid, so that we can ensure that no damage has occurred and repair if necessary before the screed is installed. If tray systems are a necessity, they must be provided to and installed by Trace at additional cost.

Membrane wall linings

The walls would be lined with an 8mm cavity drainage membrane to full height, fixed via sealed brick plugs. Please see attached drawing for extents priced.

Condensation strip detailing is omitted because of radon requirements, this implies particular requirement for adequate heating/ventilation.

Wall mounted services:

There are some surface mounted services present where we propose to install membrane wall linings, we would ask that others allow to detach these / make safe and then reinstate afterwards.

Direct applied / wet plaster / loose render

We ask that other allow to hack off any direct applied plaster so that it cannot subsequently detach and fall down behind the membrane. If existing cementitious render is present, it must be removed where degraded and at risk of future detachment. Where renders are dense and well adhered, they can remain in place.

Preparatory works

We would ask that others allow to wire brush the walls to remove loose and friable materials, so that these do not detach in future, falling down behind the Trace membranes to then access the proposed drainage channel.

Resistance to ingress

Structures must provide a suitable degree of resistance to the ingress of water; we ask that others allow to patch/infill any obvious holes through the structure.

Embedded timbers

Any embedded timbers must be removed by others as a matter of course with any incidence of decay being reported. Any in-situ timber (old fixing plugs etc.), left in place represent a risk in respect of fungal decay, and in providing a food source for spread of fungi, i.e. dry rot/wet rot. This would be at client risk.

Dry linings

Dry lining specifications can vary, however we include the option to fit 25mm by 50mm treated timber battens, screwed into the sealed brick plugs, and then squared up ready to accept insulation/plasterboard by others. This is an ideal specification in that it keeps finished wall profiles to a minimum depth. This is priced for application over areas of our membrane only.



Designing for interstitial condensation

Where insulation is included internal of the cavity drainage membrane, we advise use of a board with a vapour control layer, such as a fail backed board. This is to limit movement of vapour through the wall build up to the face of the wall membrane which will be kept cool, as a result of the aforementioned insulation.

Meshed membrane - localised areas

In areas where minimal depth wall build-up is required, we can line with a meshed cavity drainage membrane, which can receive plasterboard via dabs or wet plaster (please request spec. if applying this yourselves), resulting in reduced build up.

Typical locations are window reveals, door reveals, stairwells and corridors. Fixing meshed membrane requires a significant number of plugs, extra areas of meshed are charged at a higher rate versus membrane and battens. Extent of meshed membrane proposed is shown on the layout drawing.

Friable substrates

Soft brick, random stone, soft or perished mortar, can all provide difficulty when seeking a secure plug fixing, both to support the membrane and any battens and dry linings installed over. Where a standard sealed plug is inadequate, we will either insert adhesive into the holes before the plugs, or will employ a longer Flex-Dri cob plug with pin (expands when pin hammered in). We allow a sum for this.



Replastering (insulated boards).

Wall / floor junction detail

The floor membrane is sealed back to the wall membrane at the wall floor junction via wide profile adhesive butyl tape.

Waterproofing to DPC level

BS8102 advises that the practicability of linking the waterproofing to DPC level (150mm above external ground level) be assessed and implemented where practicable.

It is not practical in this case because of the presence of suspended floors above the basement which reside/extend below external ground level.

Note that even where we can take waterproofing up to DPC level, we do not guarantee against ingress as a result of above ground flooding, because water can still potentially access through features such as level access doors.

Lightwell/stairwell lining options

Just to note that we can allow to line external wells with a meshed membrane, which can then be rendered and painted white to reflect natural light into the interior. We do not allow for this work at this stage, but can do so if requested.

External wells – surface water drainage

External wells form a rainfall catchment, and this water must be dealt with rather than it collecting and accessing the interior. To address this we would include (space allowing) a trapped gulley, with a pipe taken connected to the sump chamber.

Stairs

Timber stairs must be isolated from the potentially damp structure, this can in some cases be achieved with in-situ stairs, by passing a membrane down the side of the stringer and beneath the base of the stairs by propping these temporarily.

However, this is not possible in all cases, and we allow a provisional sum for removal and reinstatement. Note that if the condition is such that the stairs cannot be removed and reinstated, then new stairs may be required at additional cost (not priced for at this stage).

In this case the stairs include a half landing and then a number of steps leading down to floor level. We envisage requirement to remove the lower steps, and then hopefully these can be reinstated.

Drainage surcharge

Connections to mains drains (or soak-aways) within basements represent a risk of surcharge. The Trace system is to protect against groundwater ingress, not drains surcharge and capping connections or inclusion of non-return valves should be considered to address this risk.

System Discharge via Sump Pump:

The sump pump system is an integral part of the waterproofing, reliably removing any penetrating water collected by the channels, and (where installed) membrane system.

There are a variety of component parts and facets to the installation of a sump system:

pre-formed plastic sump chamber:

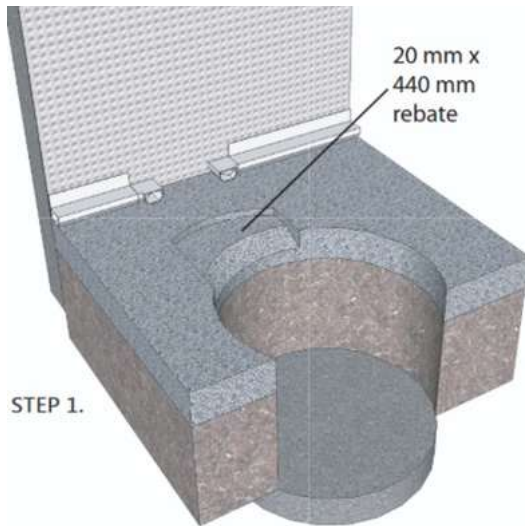
A robust HDPE plastic chamber which will last the life of the structure, it can be integrated into structures in a variety of ways and provides inlets and outlets for channels, conventional drainage pipes (inlet), discharge pipes (outlet, and conduit for power and alarm cables.



Cont.

Proposed Sump chamber installation method

Installed into cast reinforced concrete box formed by others (800mm wide, 1000mm long, 600mm deep). The sump will be installed into the box and backfilled around with concrete by Trace.



Sump chamber cover

Sump chambers require an access hatch over. The type of hatch and detail employed is influenced by the nature of the floor build-up and also aesthetic requirements depending on where the sump is installed.

We propose:

A galvanised Clark Drain recessed access hatch with vapour seal, best suited for installation in an 'out of the way' or external location, or to be covered over.



Pump specification:

2x 400w pump – Max. flow rate per pump – 280 litres/minute (220 l/m @ 4m head). NB: Figures are with 2x discharge pipe, performance is reduced where employing 1x discharge.

Note that TWO mains powered pumps provides mechanical redundancy (if one pump suffers any issue there is a back-up).

Upon provision of permanent power supplies, Trace will commission and record the detail of this process within in a commissioning report.



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TECHNICAL DATA	
Features	NP400 eco
Purchase Code - Manual Version	NP4M
Purchase Code - Automatic Version	NP4A
Pump Design	Semi-vortex
Outlet	2 inch - Female BSP
Recommended Discharge Pipe Size	50/63
Maximum Pumping Head	12.0
Maximum Flow Rate	280
Flow Rate at 4m Head	220
Flow Rate at 6m Head	175
Flow Rate at 8m Head	125

Power supplies

Our quotation is based upon the electrical supplies being provided by others / the clients project or preferred Electrician.

The system includes two pumps, and each must have a dedicated and independent power supply, so that if one pump should suffer issue and trip out the supply, it will not trip out the other pump. By independent, we mean that nothing else can share the supply, no lighting (for example) where a bulb failing could trip the circuit and inadvertently remove power from a pump.

A detailed electrical specification can be provided, however in brief:

2x key-switched 13 amp spurs with LED indicators, installed within line of sight of the sump.

Fed by 2x independent RCD/circuit breakers on the unprotected side of the board.

Plug sockets are not acceptable.

Our price is based upon one visit by our Pump Engineer to commission the system, if additional visits are required because of incorrect electrical installation, this may incur additional costs.

The Electrician is to attend site and meet with our pump technician when the power supply is provided, allowing the pumps to be commissioned. The sump must not then be accessed without recourse to Trace after it has been commissioned.

Battery back-up

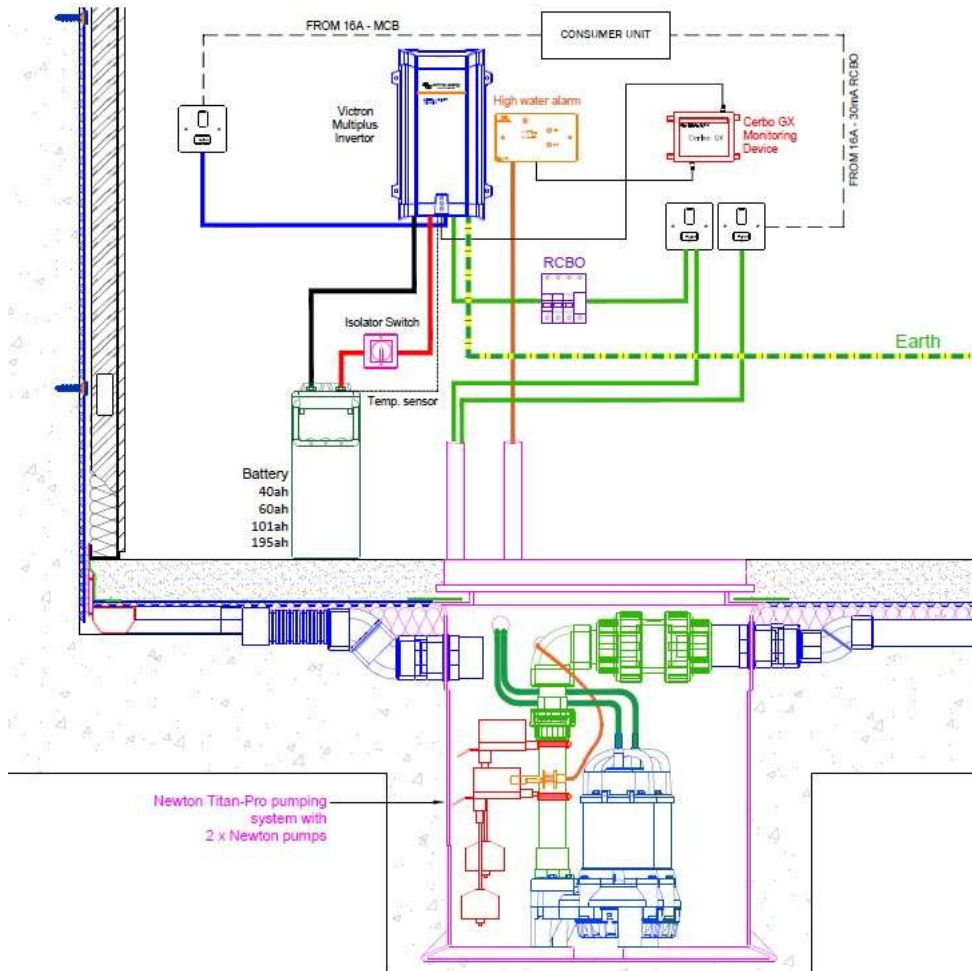
During power outage, a Victron inverter system detects loss of mains power and switches to battery supply. When mains power is reinstated, the unit switches back to the mains supply, and then recharges the battery(s).

The total volume of water moved by a battery back-up system is dependent on the head, (height to which water is lifted), frequency of pump cycling, and size/number of batteries included. A 400 watt pump, lifting to 4m on a 200 ampere hour (aH) battery, will move approx. 12,000 litres.

We install 200aH of capacity as standard. This is increased either where there is excessive ingress, or sumps also deal with rainfall collected in external wells for example.

Batteries are ideally housed in cupboards or plant rooms where present, if you have specific requirements on where you would want these to be installed, please advise at the start of the project so that cables can be run between the sump chamber and the battery back-up location, if we're not informed early enough in the project, the battery back-up system will be installed next to the sump chamber. If other trades will be installing plant within that area, please advise where we can locate our plant, otherwise our Pump Engineer will agree this with relevant persons on site.

Example installation schematic - again please note that the sump does not have to be next to/below the panel and battery:



Battery back-up

The proposed Victron inverter is 24v which is achieved through the inclusion of 2x 12v batteries wired in series. Each battery is approx. 300mm long by 275mm high by 125mm across.

We do not allow for cupboards or shelving to house and conceal batteries.

Battery capacity proposed: 200Ah



High level alarm

Alarm systems are set to activate if water reaches beyond where the lower primary pump operates, but before the higher back-up pump takes over. It is to alert to the fact that the primary pump should be checked, not that the basement is going to suffer issue.

We offer a 90dB audible alarm, which includes a 'zero voltage out', which can be connected to a Building Management System (BMS) or compatible house alarm.



High pressure discharge pipe(s)

Discharge pipes are formed in high pressure PVC pipework with solvent weld couplings

Discharge pipes include 2x non-return valves, one on the pump and one in-line valve.

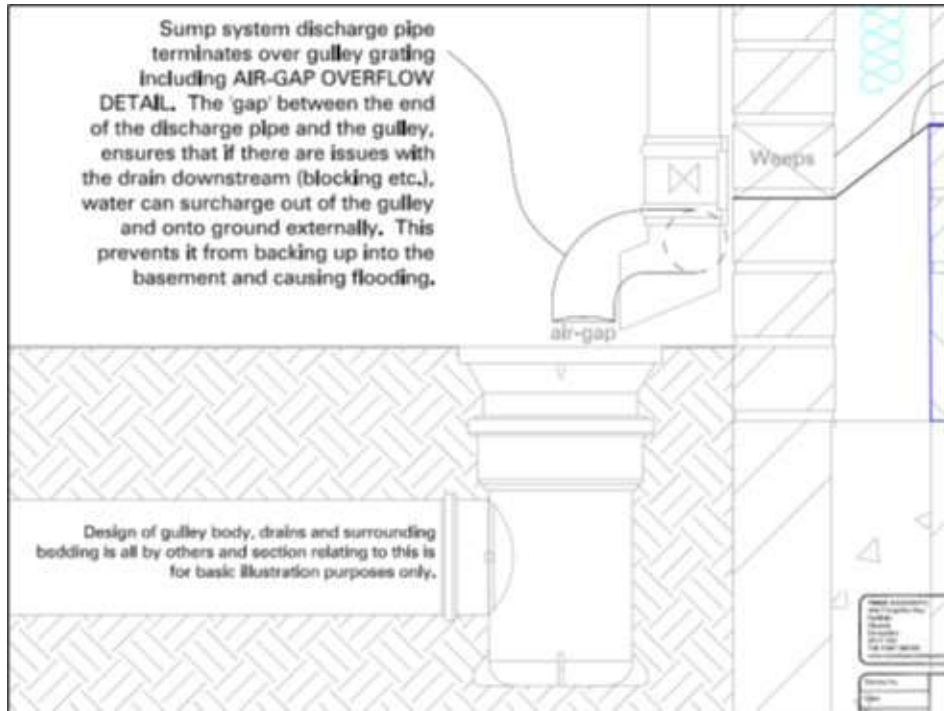
Proposed discharge pipe configuration:

2x 50mm diameter (each pump has a dedicated pipe),

Discharge pipe termination detail

Discharges must be configured with what we refer to as an 'air-gap/over-flow detail'. Simplistically this detail, means terminating a discharge pipe over a gulley grating, leaving an air-gap between the end of the pipe and the grating, so that water can spill out externally in the event of the drain/gulley blocking and surcharging, hence an air-gap over flow detail (also known as a 'flood

loop' in the industry. There are a number of ways of achieving the detail, i.e. we do not always need a gulley with grating over, but the detail must be included in some form.



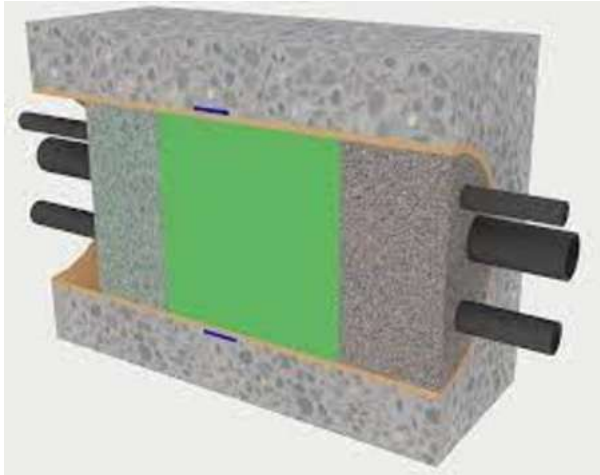
Construction phase water management

During the construction phase many sites will operate on 110v power, which prevents the installation of our permanent 240v pumps, until such time that 240v power is provided.

Our position is that main contractors must provide and maintain temporary 110v pumps to deal with any groundwater during the course of works, this because Trace have little to no control over power supplies or other trades on site (unplugging supplies, sweeping spoil into sumps etc), over periods of time while we may be both on or off site – for example when we've completed but prior to screeding.

Service penetrations

We allow a sum to detail any service penetrations with Foam backing rods, Stopaq hydrophilic clay, finished internally with Stopaq mortar. This is a typical method and material for sealing service penetrations which otherwise can allow for significant water ingress in the event of saturation of the ground. We also allow to detail the cavity membrane around services internally.



External foul drainage issues

Just to note that proposed system is intended to protect against groundwater ingress, not escape of foul water from drains external of the basement. We therefore recommend periodic inspection of drains serving the property (good practice in any case), to identify and address defects before they lead to issue.

Health & Safety - Welfare

The law states that clients and contractors have responsibilities regarding welfare facilities on construction projects. Contractors (such as Trace) must provide facilities and clients must ensure that this happens. The nature and scale of facilities required are influenced by the size and type of project, however there are minimum requirements on any project, which include the following:

Access to adequate toilet and washing facilities (sufficient to wash face/hands/forearms).

Clean hot/cold running water.

Drinking water (mains supply is the ideal).

We price on the basis that suitable welfare facilities will be provided to us.

Power supply during works

We work on the basis that a 240v mains power supply would be available for the duration of our works, within the work area.

Site lighting

We work on the basis that site lighting will be provided. Task lighting will be provided by Trace.

In closing

Water Supply:

We work on the basis that a mains water supply will be available during works.

Cleaning:



Our ref: 32589 Survey Date: 2026-04-23 | Page 23 of 32
The Reed Hotel, 1 Reed Hill, Rochdale, OL16 1DF

Trace will leave our work area clean and tidy in respect of our own waste, i.e. a basic builders clean undertaken at completion of our works, where appropriate. We do not allow for a deep clean or professional clean of the work area. In addition, note that airborne dust will settle over time, and we make no allowance for return visits to clean airborne/settled dust.

Please let me know if there if you have any comments, queries or require any further information.

Kind regards,

James Hockey BA (Hons), C.S.R.T., C.S.S.W., A.C.A.B.E.

PCA Registered Waterproofing Design Specialist

Managing Director

TRACE BASEMENTS

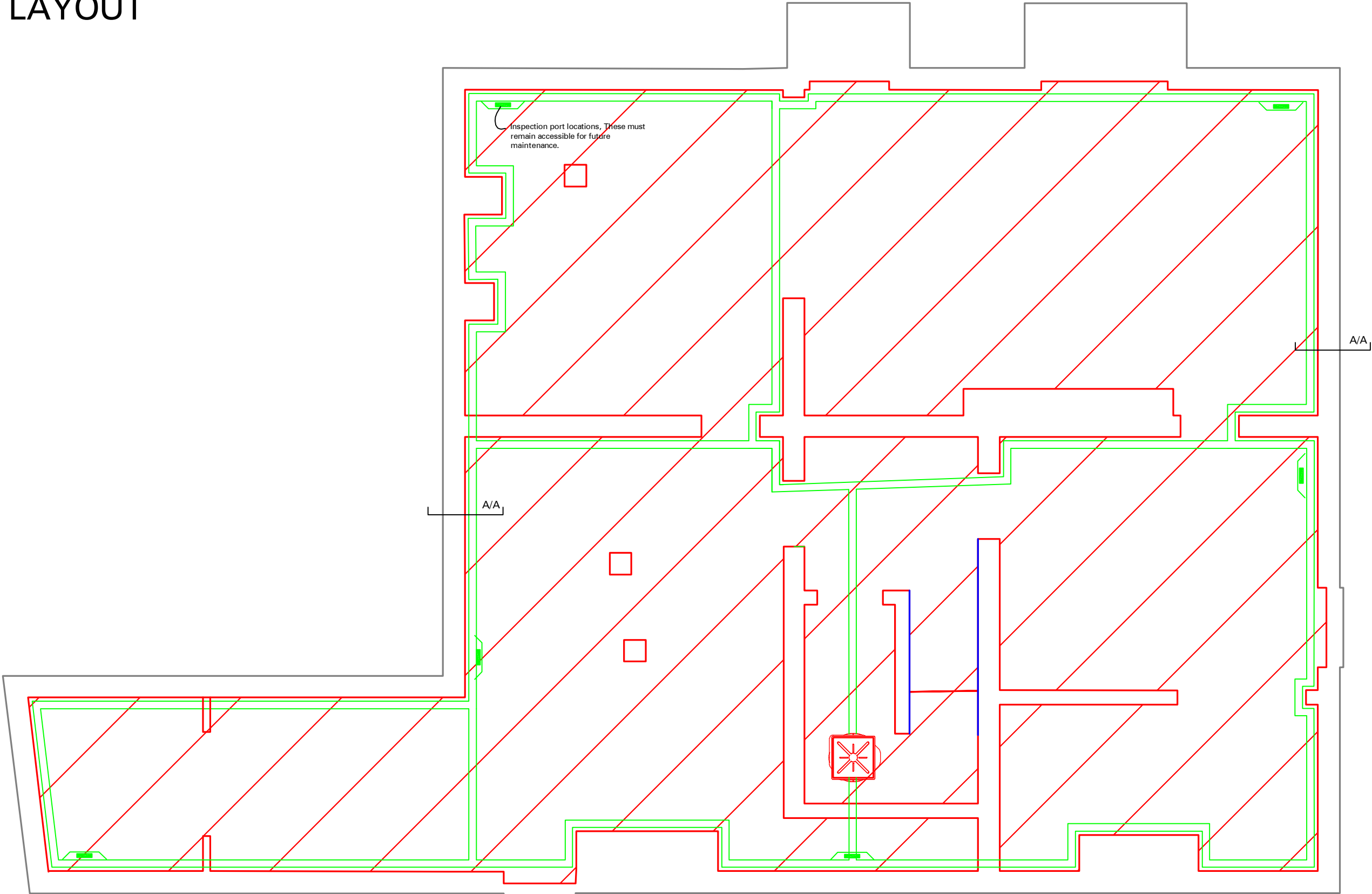
Mobile: 07946 840920

james.hockey@tracemedial.co.uk

A handwritten signature in blue ink that reads "James Hockey".

Layout/Sections illustrate Type C Drained Protection waterproofing system to allow formation of dry environment to grade 3 of British Standard 8102 Code of practice for protection of below ground structures against water ingress.

LAYOUT



Notes:

NOTES

Residual health & safety risks

1. Electrical supplies:
Ensure isolation of 240v mains supplies to pumps prior to working on pumps. 240v Supply from battery back-up system (can be live when power turned off at consumer unit/isolators) must be turned off via dedicated isolator prior to working on battery back-up system.

2. Sump chambers:
Ensure barriers placed around, when removing sump chamber lid for maintenance to prevent falls.

General notes:

- Any insulation within dry lined wall construction to be rigid board material, maintaining clear air gap of min. 20mm between insulation and wall membrane to prevent scope for interstitial condensation (should this occur) to bridge across. Mineral wool batts if employed are at client risk.
- Inspection port locations can be tweaked to suit client preferences. Ports must not be hidden or made inaccessible.
- Suitable heating and ventilation must be provided and employed to maintain a dry environment in storage/habitable space, this work is by others.
- Structures must be suitably weather-tight to receive floor membranes / drying works by others if necessary following rainwater ingress post install.
- Temporary pumping where necessary prior to install and commissioning of Trace 240v pumps is the responsibility of the client/main contractor or whomever has control of the site.
- Existing drains/connections to mains drains should include non-return valve / anti surcharge devices, by suitable specialists.

rev	description	by	date
rev	description	by	date
rev	description	by	date
REV:	DESCRIPTION:	BY:	DATE:

STATUS: DESIGN-STAGE



TRACE BASEMENTS

Unit 7 Graphite Way
Hadfield, Glossop, SK13 1QH
Tel: 01457 865 165
tracebasements.co.uk

CLIENT:

Brightwise Ltd.

ARCHITECT:

createitstudios

SITE:

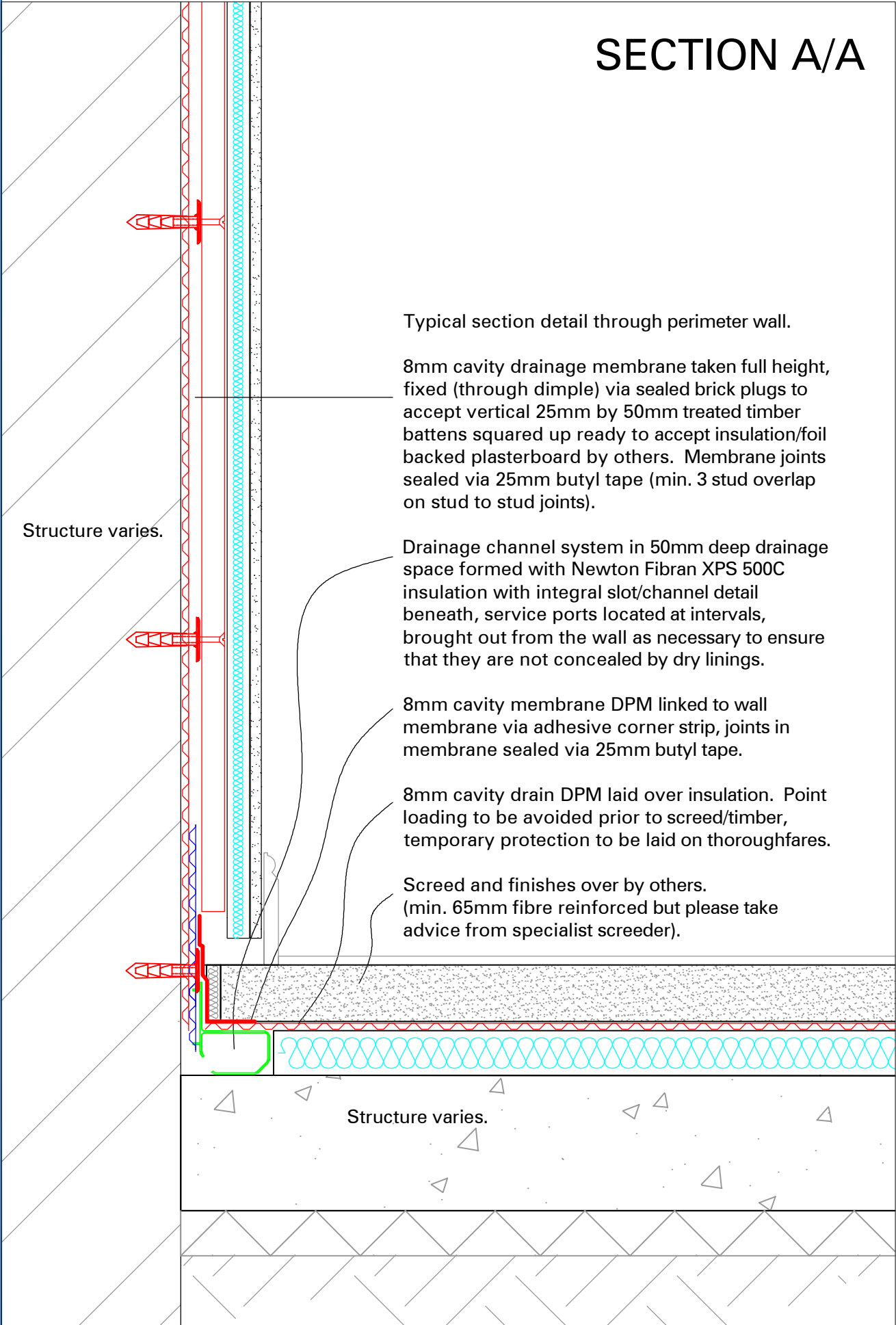
Reed Hotel, Rochdale, OL16 1DF

TITLE:

WATERPROOFING

SCALE AT A3: NTS	DATE: 20-5-26	DRAWN: JH	CHECKED:
PROJECT NO: 32589	DRAWING NO: PL-1 LAYOUT	REVISION:	A

Layout/Sections illustrate Type C Drained Protection waterproofing system to allow formation of dry environment to Grade 3 of British Standard 8102 Code of practice for protection of below ground structures against water ingress.



Notes:

NOTES

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rev	description	by	date
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REV:	DESCRIPTION:	BY:	DATE:

STATUS: DESIGN-STAGE



TRACE BASEMENTS
Unit 7 Graphite Way
Hadfield, Glossop, SK13 1QH
Tel: 01457 865 165
tracebasements.co.uk

CLIENT:
Brightwise Ltd.

ARCHITECT:
createitstudios

SITE:

TITLE:
WATERPROOFING

SCALE AT A3: NTS	DATE: 20-5-26	DRAWN: JH	CHECKED:
PROJECT NO: 32589	DRAWING NO: SD-1 AA BB	REVISION:	A

The Reed Hotel, Rochdale, OL16 1DF

The Reed Hotel

Exported: 18/05/2026, 18:25:21



WORKS BY OTHERS / NOTES FOR THIRD PARTIES

Name	
Allow to infill any substantial / localised holes within the structure.	
Brush down walls to remove loose and friable materials.	
Hack off direct applied plaster /friable render, bag and remove waste to skip (on site/at Trace offices).	
Build in wide profile DPC details in Newton 809 DPC, or 601 Slimline, where indicated on Trace section details.	
The design, installation and suitable operation of heating/ventilation/dehumidification appropriate to usage, to control vapour and prevent issues of condensation or high relative humidity levels.	
Min. 65mm fibre reinforced screed / screed to specialist design. Floor membrane to be protected against damage where pumped (pipe couplings being dragged over membrane can cause damage). Screeders to be forewarned of installing over cavity membrane, screed to be laid asap after membrane installation, otherwise adequately protected against site traffic.	Hadfield, Glossop, SK13 1QH
Allow to obtain listed building consent if and as required.	t: 01457 865165
Any associated non-specialist general building works	enquiries@tracere-medial.co.uk
Please allow to remove and reinstate the stairs, or replace if and as necessary.	www.tracebasements.co.uk
Allow to install insulation backed plasterboard to external walls only (12.5mm on internal walls) with integral vapour check.	
Form the new slab flat and level as far as is possible, and provide a smooth finish to aid in the subsequent grinding works, wood float finish can aid in minimise scope for laitance	
Services (pipes/cables etc.) to be detached / made safe by others	
We assume provision of a site water supply / mains water.	
NRV's on any direct connections to mains drains from within the basement (may require specialist third party input).	
Any associated statutory requirements - for example, building regulations applications, listed building consent, party wall consent, is by others.	
Inclusion of vapour control layer to warm face of any wall insulation (foil backed board).	
Welfare on site to be provided by others (if not provided we will arrange at additional cost).	
Form the new slab flat and level as far as is possible, taking care not to create high points at discharge/sump locations. Floor to be no more than +/- 5mm over 2m in any direction and no more than 25mm over any dimension.	
Site lighting to provide safely lit work area.	
Allow sum to investigate existing floor construction via trial hole formation.	
Given the age of the structure we advise that a drainage survey should be arranged to check general condition, and remedy any defects accordingly.	
Removal of any embedded timber fixing plugs (report any signs of decay to Trace)	
Allowance to patch pointing in poor condition.	
Provision of power supplies to sump pump, to Trace specification, i.e. 2x independent supplies (specification provided separately).	
We assume provision of 110v/230v power to facilitate Trace works	
Provide temporary 110v pumping for the duration of works, ensure that power supplies to pumps are maintained during the course of Trace works. Clean/maintain pumps as necessary until the permanent 240v pumps are provided by Trace.	
Allow to leave existing pumps in place with power supply for the duration of works	
Any structural works/alterations be completed prior to installation of Trace membranes within those areas. This is to avoid damage to and blockage of the Trace drainage system with associated warranty and repair cost implications.	
Fit new 12.5mm plasterboard, apply scrim tape and beads, then finish with skim plaster.	
Please obtain/provide an Asbestos R&D survey / advise in respect of any available asbestos information.	

WORKS BY TRACE BASEMENTS / WORK QUOTED FOR

Name	Page	Cost	Provisions	Total
Allow for vent pipe to sump system / from behind membrane.	Radon protection measures		£356.80	
Allow to supply and fit in-line radon fan system, electrical supplies are by others.	Radon protection measures		£530.00	
Double seal tape details to cavity membrane (radon)	Radon protection measures		£1,764.00	
Extra over cost for installation of heavier gauge radon specific cavity drainage membranes.	Radon protection measures		£1,318.80	
Prime wall along top and seal membrane back to wall with wide profile butyl tape (radon seal)	Radon protection measures		£2,260.74	
Provisional sum for tracer gas integrity testing of membrane by third party company (day rate)	Radon protection measures		£1,400.00	
Install pre-formed plastic drainage channel swept corners.	Drainage channel detail	£128.43		
Install pre-formed plastic perimeter drainage channel T section	Drainage channel detail	£157.41		
Install pre-formed, perforated perimeter drainage channels and inspection ports. Inspection ports must be left accessible for future maintenance.	Drainage channel detail	£4,322.09		
Laser level survey or flood test to check slab and or channel flow to the sump/discharge point.	Drainage channel detail	£178.40		
Lay Newton Fibran 500C 50mm insulation with 500 kPa compressive strength and integral channel detail.	Drainage channel detail	£3,675.00		

Co. No. 1503809, VAT 298631120

Trace Basements & Trace Remedial Building Services are Trading Names of North West Damp Proof Services Ltd.

www.tracebasements.co.uk

8x wins,
4x 'project of the year'



Provisional sum for adjustment to the floor slab via localised infilling or shallow chases through high points, tanked with polymer modified cementitious tanking slurry.	Drainage channel detail	£297.33		
Spray all concrete surfaces with anti-lime solution (line item allows for concrete walls AND/OR floor areas as necessary.	Free lime inhibitor	£365.00		
Optional bespoke aluminium port covers milled from billet aluminium.	Channel ports detail		£92.75 per cover	
Formation of 8mm cavity drainage membrane DPM with sealed joints. Allowance 28mm butyl tape inc.	Floor membrane (internal)	£4,460.00		
Fit vertical strips of 809-HP DPC membrane, via sealed plugs positioned to accept ties, to the retaining walls where new masonry internals will bear against these.	Wide profile DPC detailing	£297.33		
Provisional sum to supply rolls of 809 DPC for installation by the main contractor.	Wide profile DPC detailing	£212.00		
Allowance 150mm wide profile butyl tape (required when screed laid over).	Floor covering	£130.80		
Fit 8mm cavity drainage membrane to walls full height fixed via sealed brick plugs. Fit 20mm above structural floor level. Allow for plugs and tapes.	8mm wall membrane	£11,224.75		
Option for Trace to fit 25mm deep by 50mm wide treated timber battens, squared up ready to accept insulation/plasterboard by others.	Battens / dry linings		£12,758.75	
Fit 8mm meshed cavity drainage membrane to localised wall areas (see drawing for exact extent) to provide minimal depth wall profile. Installed via sealed brick plugs.	Meshed membrane	£535.20		
Sum for brick plug adhesive / FlexiDri plugs to accommodate weak substrates.	Variable substrates (adhesive fixings)	£861.40		
Sealing the wall floor junction with wide profile adhesive butyl tape, including sealing back around any service penetrations.	Wall floor tape detail	£1,608.84		
Depending on available space, fit trapped gulley taking 110mm pipe to sump chamber via Newton wall flange, OR Install Clarke plastic drainage channel in the base of the light well connected directly into the sump chamber via 50mm dia. pipe.	External well Drainage	£2,310.80		
Allow to isolate stairs in-situ - temp. prop and install high compressive strength membrane laid over Engineering bricks bedded on 3:1 S/C, sealing back to peripheral membrane and removing props	Stairs	£699.60		
Run 2x conduit for electrical supplies and alarm cables, taken back to closest wall / fused spur position.	Sump liner	£15.90		
Supply Trace Sump liner (TPW).	Sump liner	£506.44		
Sump excavation to receive Trace Sump TPW, and backfill around new sump with concrete.	Sump installation		£832.52	
46mm deep vapour seal galvanised recessed access hatch.	Sump lid	£109.60		
2x 400w NP Eco pumps and associated highpressure pipework, non-return valves, quick release unions, 2p 2bh.	Pump specification	£1,700.60		
System commissioning, clean sump, install 240v pump(s) connect to spurs, config. float switches, high level alarm, battery backup system, test pumps and backup with and without power note that water must be available to facilitate testing.	Pump specification	£349.80		
Victron inverter battery backup system 24/800.	Battery back-up	£1,562.44		
2x Battery and cables (approx. 12k litres pumped). 200aH capacity	Battery specification	£792.88		
90dB Audible high level alarm with zero voltage out for connection to BMS/compatible home alarm	Alarm system	£164.73		
High pressure solvent weld discharge pipe formed in 2x 50mm dia. pipes. Includes 2x diamond core hole.	Discharge pipes (if pumping)	£356.80		
Allow to prime cables/services internally and seal back cavity drainage membrane to these via butyl tapes	Service penetrations	£26.50		
Protect sleeves through structure with foam backing rods, Stopaq and Stopaq mortar (max. gap filling of 40mm).	Service penetrations	£349.80		
Allowance for parking costs, travel and attendances by project Surveyor.	Attendances	£500.00		
Subtotal		£37,899.87	£21,221.61	£59,121.48
Tax amount (5%) Assumes 5% rate, please advise!		£1,894.99	£1,061.08	£2,956.07
Total cost (incl tax)		£39,794.86	£22,282.69	£62,077.55
QANW insurance cost. (Type C only system).				£2,298.82

Trace guarantees and the QANW insurance (if option taken) are not issued until we receive payment in full, QANW late fees apply if not applied for (because of late payment) within 2 months of completion, these fees are payable by the client.

The first system service will take place six months after practical completion of the system, then annually thereafter or every six months in special cases.

Service charged at £250.00 + VAT per year increasing with inflation. See report for further information on this.

Grey shaded cell indicates item priced for. Quote valid for 60 days from date above

• Optional Ten year QANW Guarantee backup insurance (Type C waterproofing).

The QANW insurance is an option, but advised so that you have a true and safe guarantee. The QANW fee will be levied at the premium set by QANW (determined from contract value after VAT) plus a £35 Trace administration fee per property, with Insurance Premium Tax (IPT) on top, which is 12%. QANW cost can be influenced by options taken (extra works may increase insurance costs) premiums are set according to total contract value including VAT.



Our ref: 32589 Survey Date: 2026-04-23 | Page 24 of 32
The Reed Hotel, 1 Reed Hill, Rochdale, OL16 1DF

Terms

ACCEPTANCE OF QUOTATION AND CONTRACT (REMOTE AGREEMENT)

This quotation, together with the attached report and Terms and Conditions, forms the contract between the Client and North West Damp Proof Services Ltd T/A Trace Remedial Building Services.

By signing and returning this form (including by email or electronic copy), you confirm that you:

- * Accept the quotation and Terms and Conditions in full;
- * Are authorised to enter into this contract;
- * Agree to pay the deposit and remaining balance as stated;
- * Acknowledge receipt of the required pre-contract information, including your statutory right to cancel.

A legally binding contract is formed on the date we receive your signed acceptance.

CLIENT DETAILS

Name: _____

Address: _____

CONTRACT SUMMARY

Total Contract Price: £ _____

Deposit Payable: £ _____

Balance Payable: £ _____

RIGHT TO CANCEL

You have the right to cancel this contract within 14 days of the date of acceptance, without giving any reason.

To cancel, you must inform us by a clear statement (for example, by letter, email or telephone). Cancellation is effective from the date you send notice.

If you request that work begins within the 14-day cancellation period and later cancel, you will be required to pay a proportionate amount for work carried out up to the date of cancellation.

If the contract is fully performed, you will lose your right to cancel.

EARLY COMMENCEMENT REQUEST (OPTIONAL)

I/We request that work begins before the 14-day cancellation period expires.

I/We understand that if cancellation occurs within 14 days, payment will be due for work carried out, and that the right to cancel is lost once the contract has been fully performed.

Signed (Client): _____

Date: _____

Business Details

North West Damp Proof Services Ltd

T/A Trace Remedial Building Services



Our ref: 32589 Survey Date: 2026-04-23 | Page 25 of 32
The Reed Hotel, 1 Reed Hill, Rochdale, OL16 1DF

Unit 7, Graphite Way, Hadfield, Glossop, Derbyshire SK13 1QH

Tel: 01457 865 165

Email: enquiries@tracere-medial.co.uk

VAT Reg: 298 6311 20

UTR: 23420 07546

Terms & Conditions

All contracts made by North West Damp Proof Services Ltd (T/A TRACE BASEMENTS and TRACE REMEDIAL BUILDING SERVICES) shall be deemed to incorporate these terms and conditions. No other terms and conditions will apply unless specifically agreed in writing by TRACE.

Where a 'Main Contractor' is referred to, this may be replaced with 'client'.

Payment: Applications are made on a monthly basis (where projects span over such periods) or at practical project completion where shorter. Invoices are due for payment upon receipt. Should payment become more than 30 days overdue, the total outstanding balance shall become immediately payable, together with a further administration fee of £50.00 under the terms of the late payments of Commercial Debts (interest) Act of 1998. We retain the right to charge interest at the rate of 6% above base rate.

In the event that completed work is not to client satisfaction, TRACE must be informed immediately. Withholding payment while failing to advise TRACE of any issue at all will result in the addition of the late payment penalties outlined above. Payment may be made via cheque or electronic transfer to Acc. No. 39601803 Sort code: 010541.

TRACE's responsibility is restricted to the work as detailed within the TRACE report and quotation.

No discount or retentions can be applied unless specifically approved in writing BY TRACE, prior to commencement of the works. Non-payment of retention (to TRACE) when due, will void the guarantees until such a time that the outstanding retention and interest, rates and terms as previously advised herein, are passed to TRACE. All materials/plant remain the property of Trace until payment in full is received.

Provision of Services/Facilities: The quotation assumes that the client will afford all necessary facilities to TRACE including storage of materials, parking, welfare facilities (W.C., warm running water, drinking water), continuous 13amp 220/240v or 110v mains electricity as appropriate with sufficient number of points to suit programme. It is assumed that this will always be provided and in the event that it is not, clients accept that the associated extra costs will be passed back to them. This includes circumstances where we have safety concerns in running cables long distance etc.

Additionally any stored items must be removed from areas of work prior to TRACE attending site. Any items/fixtures/fittings/finishes left within areas of work are at client risk unless otherwise expressly stated within the report. Other contractor's tools and materials are to be removed from the TRACE work area prior to TRACE commencing work there. TRACE to be notified in advance where this is not possible and controls agreed prior to TRACE commencing work there.

Proposed TRACE work areas are to be left fully prepared and free of site debris prior to commencement by TRACE.

The Main Contractor shall be responsible for and provide all necessary traffic management, barriers, diversion systems, signs and lighting, together with all necessary protection to adjacent workforce, personnel and structures.

The Main Contractor shall provide suitable safe heated storage facilities and sufficient containers for the adequate storage of our materials and equipment for the duration of the works.



Our ref: 32589 Survey Date: 2026-04-23 | Page 26 of 32
The Reed Hotel, 1 Reed Hill, Rochdale, OL16 1DF

The Main Contractor shall provide suitable access for placement of generators, compressors and any other equipment deemed necessary by TRACE for provision of our works. This shall include suitable parking or access for surface preparation vehicles where required.

Electrical power, lighting, water, scaffolding, dehumidification and access towers shall be provided free of charge by the Main Contractor, when required to carry out the agreed works.

The Main Contractor is responsible for identification, marking and making safe of any services within the proposed areas of work. Any instruction or requirement to obtain specialist equipment, such as for finding cable locations or other services is chargeable.

Diagnosis: Unless specifically stated to the contrary, our offer to carry out works does not constitute a diagnosis. In any event 'free surveys' and 'quotations' do not purport to be a diagnosis of the problem. Diagnostic surveys and sample analysis are available on a fee basis.

Specification Amendment: We reserve the right to amend specification (including substitution of materials dependent on stock availability) and design details subject to factors which may come to light after the commencement of works. Where such changes affect the price of the work and/or if additional works are required, these will be subject to a further quotation and charges.

Extra Works: Variations, additions or omission to the contract works carried out by TRACE, must be requested and subsequently instructed in writing, by the Employer chain, and this will constitute a variation to the contract, for which a charge will be made. Extra works must include mark-up for over-heads and profit; and must not be assumed on an 'at cost' basis. We will not accept verbal instructions unless approved by a company Director. Any work for which we do accept a verbal instruction will be deemed subject to day rates (including travel time) and materials uplift as detailed within this report.

Acceptance periods: Prices quoted are net (including of any discount) and exclude VAT, and are valid for a period of 60 days from the quotation date. Orders should be submitted in writing by fax/email/post, on signed company letterhead, confirming the accepted order total.

Working Times & Access: Our contract assumes that TRACE will have access to be able to complete the work during a continuous working period, this being between 7am and 4pm (this partly including travelling time). Where working times outside of these hours are required they are subject to overtime or nightshift charges. By restricting or altering these working hours, the client accepts the additional associated costs. Works such as breaking or hammer drilling which can create high levels of noise and vibration, are undertaken between 8am and 4pm.

Unhindered access to the working area is to be made available and exclusive possession of the working area shall be given to TRACE for the duration of our operations. The area has to be accessible, safe, well lit, or correctly prepared or this will result in an abortive visit, standing or waiting time for our operation teams caused by unavailability of the work area. TRACE require that the complete area of work is made available to us at any one time, unless agreed within the programme. Where abortive visits, standing or waiting times do occur, our site staff will advise the site chain in writing, with a copy to TRACE for confirming officially with the employer chain.

Delays/Minimum Day Charge/Abortive Visit: Should the client or other occupant/stakeholder delay commencement or completion, or cause standing or waiting time for our operation teams for whatever reason, this shall incur an hourly charge - see day-work rates below. The minimum day charge for an abortive visit is £200.00 per two man team. Any loss to TRACE resulting from additional expenses must be paid for by the client as an extra. Furthermore agreed completion dates may be forfeit.

Where issues outside of TRACE control result in late practical project completion, TRACE cannot be held responsible for any associated liquidated damages or penalties imposed in full or part thereof.



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Notice: TRACE may require a minimum 3 working weeks' notice period from receipt of order for the delivery of materials, and depending on the material procurement and manning, this can also apply to each site visit and work stage. Where cancellation or postponement of a start date causes losses to Trace in respect of labour or purchased wasted materials, or loss of profit, such costs will be charged to the instructing client. Temporary postponement must be issued in writing at least 3 days before the originally programmed start date, with revised start dates after such postponement agreed by TRACE.

The Main Contractor shall make adequate allowances in the works programme for our work to be carried out as a non-critical activity. No charges or costs for delays against TRACE will apply unless the Main Contractor has specifically notified TRACE of critical working and critical periods of completion before the order is placed.

Our price is based upon a five day working week, Monday to Friday (40 hours/week including travelling time) and makes no allowance for critical activity working. Overtime, night work and weekend working is chargeable as extra to our price and is calculated at TRACE rates.

Where the number of visits to be undertaken to complete the works is specifically noted under Qualifications in this document, any further visits shall be subject to additional mobilisation charges of £1,500.00 per team visit.

Weather dependent works (Temperature/Rain): All cementitious or other liquid applied systems require minimum five degree Celsius and higher temperatures, and generally no rainfall for 24-48 hours on any exposed treated area for each coat of the application. TRACE reserve the right to vary the agreed start date based upon the prevailing weather forecast noted the day before due date of commencement of works.

Whenever weather conditions or conditions arise because of weather that affects the TRACE works, TRACE can suspend work due to the weather for as long as the company considers necessary. No liquidated & ascertained damages nor any other costs or charges will apply because of delays to our works caused as a result of the weather or conditions arising from the weather.

Should the Client or Main Contractor consider the use of tenting to maintain the contract programme then the responsibility and all costs associated with the provision, hire, erection, maintenance, heating, humidity control, ventilation, transportation on site and dismantling shall be borne by the Client or Main Contractor. Tenting must prevent rainfall accessing any part of an applied waterproofing system during the curing process, and repair of damage caused by water is chargeable.

Groundwater/Flooding/Drainage System: Unless otherwise stated within the design/report, systems are designed to protect against groundwater (saturation of the ground) and not flood events where water stands above external ground or basement well levels.

The Trace system is not designed to deal with water containing foul content. Flooding/ingress caused by drainage issues resulting in the introduction of water surged back up from the from drains, or foul or other contamination into the system, is not guaranteed against and should be covered by home and buildings insurance (but please check). Domestic drainage must be appropriately maintained and we recommend periodic inspection of this to allow condition to be managed. Flooding as a result of internal plumbing leaks is also excluded from guarantee cover.

As a rule we recommend against direct connections to mains drainage from within a basement, for example a W.C. linked by gravity to main drains, or a gulley in the base of an external stairwell linked to mains drains, because in the event of blockage/surcharge, this could flood the basement and we therefore cannot guarantee against this if such details are employed.

Pumping design: Pumps are sized dependent on the area being drained, estimated inflow rates, and the head (height) to which the pumps must move water to the point of discharge. The general



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principle of design is to engineer in substantial capacity to remove water, while the structure limits ingress so that super low risk levels are provided.

The pump range includes 250watt, 400watt and 750watt pumps, which at an average 3m head move approximately 9000, 14400 and 20400 litres per hour respectively. Each sump system contains two pumps, both discharging through a single 63mm outer diameter discharge pipe, both pumps can operate at the same time with mains power, providing an increased flow rate (note that this is not double the figures quoted).

During power outage a single pump operates via battery back-up. The total volume of water moved by a battery back-up system is dependent on the head, (height to which water is lifted), frequency of pump cycling, and size/number of batteries included. Simplistically the range includes a small (28.3kg, medium (35.3kg) and large (60.0kg) batteries with capacities in ampere hours of 90/100/214 respectively. A 400watt pump, lifting to 4m on large battery will move approx. 12,000 litres. Batteries will be sized using the same principles of assessment applicable to pumps,

Battery back-up is designed to protect in the event of temporary power outage, i.e. where power will be restored within a reasonable timeframe; however energy stored within a battery is only used as and when the pump operates, so intermittent pump cycling will provide protection over a longer period – 4m head with 400w pump on a medium battery starting 4x per hour = 23 hours, on a large battery this would be 48 hours. Conversely, significant ingress will reduce the timeframe of protection.

As waterproofing contractors, TRACE cannot predict the length of future power cuts and it is ultimately the client's responsibility to ensure provision of power in the event of longer term outage. TRACE can be contacted if clients require assistance with this. Additional batteries etc. are chargeable.

It is the responsibility of the main contractor to provide and maintain temporary pumping (usually 110v) until permanent pumps by Trace can be installed. This includes provision of a continuous power supply. We accept no responsibility for any issues associated with temporary pumping on site.

Noise: Note that pumps are mechanical items and make a minimal degree of noise when they run, but are silent when not running. In essence pumps are an electric motor and the associated noise is the hum of the motor,

General: All measures, dimensions and method of measurements shall be agreed prior to commencement of any works.

The Main Contractor shall carry out all protective measures for surrounding areas to protect against overspray or any other impact of TRACE works to surrounding areas, plant and equipment or adjacent surfaces before, during and after TRACE attend site.

The main contractor/client is responsible for site security and preventing public access to any treated areas during TRACE works. The Main Contractor accepts full responsibility and liability to protect the membrane/waterproofing system in general from damage after the TRACE works have been completed, tested and certified acceptable. Repairs and the costs of repairs shall be undertaken with costs to be agreed.

The agreed TRACE works shall be solely carried out by TRACE. If the Main Contractor undertakes any of the TRACE works or permits any third party to attempt undertaking any of the TRACE works, either prior, during or after completion all of TRACE works without the permission of TRACE, then the company's liabilities and/or guarantees under the contract shall be invalidated.

TRACE reserve the right to carry out credit checks on you. Subject to the results of checks, TRACE may request a deposit of up to 50% before commencement of works. This deposit must be received and cleared prior to any works being commenced



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The maximum amount of Liquidated & Ascertained Damages and/or other costs and charges that can be levied against TRACE under any contract agreement shall be limited to 5% of the order value of TRACE work. Any bond or any other form of security is excluded unless otherwise agreed

All Contracts entered into by TRACE will be executed by hand. No contracts will be under seal with a value less than £1million.

The Company will require your nominated site representative to sign off areas of completed works to enable the Company to apply for stage payments.

Property and goods supplied by TRACE to the Employer for incorporation into the permanent contracted works shall not pass to the Employer until such times as the goods have been paid for in full.

TRACE will not commence work until a programme of work has been agreed with the Employer, giving specific commencement and completion dates. Such a programme, together with an order to proceed must be in writing. Such agreement shall not be unreasonably withheld. TRACE will not be responsible for any delays in the programme arising from abnormal weather conditions, fire, civil commotion, strike, lock-out or accident. TRACE reserve the right to charge for any delay occurring outside their control.

TRACE are unable to guarantee any penetration details that are installed by others. If any service penetrations are added following initial inspection, during the course of works or after, these must be advised to the Trace project Designer and installed in accordance with Trace details, at additional cost. Service penetrations can provide a significant hole through the structure and must be addressed appropriately. New service penetrations must be at least 50-100mm apart.

No responsibility will be accepted by the Company for the standard of works undertaken by builders or other third parties.

No responsibility is accepted by the Company for any blemish which may occur to any surfaces as a result of overspray in areas where works are to be executed. Whilst all practical care shall be exercised, it is the client's responsibility to ensure effective coverings are laid in positions to protect adjacent surfaces, prior to the work commencing.

TRACE will not accept liability for failures caused by osmosis or out gassing but will carry out all the necessary precautions to avoid/minimise the occurrence of either.

Clients are required to maintain their property appropriately, this including ensuring that land drains are maintained and free draining, and that drains (surface water/foul) serving the property are maintained in good working order. It is recommended that clients employ drainage specialists to check the efficacy of such systems prior to waterproofing works being implemented.

Where we are called upon to execute works to party walls or within terraced, semi-detached or properties in multi-ownership, it is the responsibility of the Client to inform the owners of the adjacent properties of the proposed works, to ensure there are no objections and to avoid any possible damage to fixtures or contents. (This is a requirement of the Health & Safety Executive and the party wall act).

TRACE will not be liable for any loss or damage however caused or occasioned unless due to negligence or other failure of the Company to perform its obligations under this Agreement or under the general law.

Insurance Backed Guarantees are issued to one property unit address only. Multi-unit properties will have individual guarantees issued.

The Company operates a complaints procedure which, in the unlikely event of a complaint, must be adhered to in order to identify the problem and to be able to solve the complaint or dispute in



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the speediest fashion. No claim for alleged damage or misconduct will be entertained unless our procedure is followed. (Details available on request).

It is the responsibility of the client to ensure that all electrical circuits and installations within the areas to be treated are located marked, safe and are in good order prior to the commencement of any work.

Defects identified are not an exhaustive list to the property as a whole, and we can only comment upon visible defects. Where intrusive investigations are carried out, we can only comment on safely accessible areas/elements.

Reports issued by the Company are in the context of diagnostic advice, estimates and or quotations and should not be construed as structural survey reports.

Day work and out of hours rates

(a) Charges extra to measured works for overtime working are

Weekday (i)	From 1730 to 2100 hours	£40.00 per man per hour
Weekend (ii)	From 0800 to 1730 hours	£55.00 per man per hour
Weekday night- time	From 1730 to 0800 hours	£60.50 per man per hour
Weekend night-time	From 1730 to 0800 hours	£70.00 per man per hour

(b) Day work

Weekday (i) Applicator- normal working hours	£30.00 per man per hour
Overtime (ii) Applicator from 1730 to 2100 hours	£45.00 per man per hour
Weekend (iii) Applicator from 0800 to 1730 hours	£45.00 per man per hour
Overtime (iv) Applicator from 1730 to 0800 hours	£55.00 per man per hour

(c) Day work rates: Plant

Van and pump	£400.00 per day
Van and pump	£45.00 per hour

(d) Day work rates: Materials cost plus 15%

Legal Liabilities, Service Contract, Guarantees and Insurance

We ask that our clients take time to read and understand this document clearly. If you have any queries please don't hesitate to speak to us. It is important because it involves the client protection we offer.

With the Insurance Mediation Directive (IMD) in force from January 14th 2005, implemented to stop people and companies misleading the public, those offering true insurance to the public must comply with the Directive and this has implications on how TRACE inform, deal with and protect their clients.

Service Contract: TRACE offer a maintenance programme that involves checking and servicing the system. The initial service is undertaken six months after practical completion, then annually thereafter or every six months in special cases. This work involves a visual check of the channels, then hosing them out if required, cleaning out the sump/s and testing the pumps where present.

The maintenance charge is shown within our quotation, rising annually by 2.5% from thereon for inflation. It covers the on-site service and a 'service pack', including replacement of important seals



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and valves, along with alarm batteries, within the price. GPI do not cover the cost of new pumps or batteries because, as with a car, replacing them forms part of the ongoing servicing regime.

Extra charges will occur in time. For example, pumps and main batteries are covered under the manufacturer's guarantee for one year, then replaced as and when necessary at cost, plus 25% mark up. This must include main 'battery backup' batteries every three to five years where present subject to our engineer's inspection, and pumps at least every five years, ensuring they remain in good working order. This can vary because different systems will experience different levels of use or 'wear & tear'. Refusal to replace pumps/plant invalidates guarantee. We will try and give one years notice in respect of when plant will require replacement, i.e. on the service visit prior.

Where systems require treatment with anti-lime fluids to break-down salt deposits (generally very wet remedial schemes), fluid is charged at £20.00+VAT per litre and additional charges will apply for time on site. Iron ochre treatments start at £240+VAT for an average 3 room basement space. If you require current prices for guidance, please request further. Claims on manufacturers pump warranties covers replacement plant only, installation costs are chargeable.

In some cases clients request ten year service costs, and it should be noted that we cannot control supplier plant costs and that these costs are best estimates. In the event of pump (for example) costs rising beyond projected figures, the additional costs would be passed on to clients.

Whilst TRACE are only allowed to 'offer' the maintenance programme, it must be taken out under the terms of our guarantee because, as with a car, the 'vehicle', in this case the channels and sump/pumps, must be serviced. TRACE will endeavour to contact clients to arrange system service; however it is the clients responsibility to ensure that system service is arranged with TRACE to maintain guarantee cover. Maintenance by third parties is only acceptable where agreed in writing and instructed by TRACE, maintenance by unauthorised third parties voids guarantee cover. Many of our competitors advise clients that any third party can service the system equipment, which in our opinion gives them good opportunity to escape liability in the event of a problem arising.

If and where ventilation systems are installed by Trace such as mechanical extractor fans, these also require maintenance by competent persons, in line with manufacturer recommendations. If such maintenance is not undertaken, this may impact performance of the proposed system and associated guarantees.

Please note that before we will issue guarantees, we require contact detail for the point of contact(s) responsible for arranging the annual service, please complete the information below and send the same to enquiries@tracemedial.co.uk, stating the full address in the subject line. NB: We ask for this information upfront because it can be difficult to source post completion.

Name of contact:

Position (where applicable):

Telephone number:

Email address:

Any other relevant info:

Guarantees: This Contract is subject to the law of England and Wales.

North West Damp Proof Services Ltd t/a TRACE BASEMENTS/Trace Remedial Building Services, issue long term Guarantees for its specialist waterproofing works (guarantees are for ten years unless otherwise stated), and subject to Terms & Conditions of Guarantee warrants that in the event of breakdown or leakage of tanking or membrane systems, will undertake such work as the Company may deem fit to remedy such defects.

Terms and Conditions of Guarantee where offered:



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1. Nothing contained under the Terms and Conditions of the Guarantees shall be construed as depriving either the beneficiary or the Guarantor of their respective rights under common law.

2. Subject to compliance with the Terms & Conditions, the Guarantees shall apply during the periods in force to any owner or owners of the property treated. Formal written notice of change of ownership should be made to the company, whereupon, and subject to payment of the Company's current charge, a note shall be made of the interest in the warranty and new Guarantee Certificate issued for the balance of the guarantee period.

3. The acceptance by the Guarantor of any claim for re-treatment under the Guarantee shall be conditional upon:

- a) payment of the Company's current re-inspection fee (refundable in full, if the claim proves to be the responsibility of the Company);
- b) the satisfactory execution of any structural or other alteration recommended by the Guarantor;
- c) the full and proper maintenance at all times of all water systems and other services in the property (the client is responsible for arranging this – maintenance of TRACE'S system to be undertaken by TRACE and not third parties (unless agreed by TRACE in writing);
- d) all reasonable precautions being taken to protect the property from dampness at all times, both internally and externally.

4. The Guarantee shall not apply to:

- a) Any areas not fully treated in accordance with the Guarantors specification, due to the Client's instructions or to circumstances beyond the Company's direct control.
- b) Any parts of the guaranteed areas which are repaired, altered or added to after completion of the guaranteed treatments, or in the case of tanking or membrane installations – piercing or invasion through the systems.
- c) Defects arising due to subsidence, fire or flood. (Flooding above ground or exceeding pump flow-rate capacity).

5. Trace guarantees will not be issued until we receive payment in full.

Insurances: TRACE maintains £2.5m Professional Indemnity Insurance (for any one claim) covering advice give on the property. This basically protects both the client and TRACE in the event of a claim.

What the public do not realize is that 98% of the other 2,500 or so purported specialist remedial companies in the UK keep them in ignorance of the fact that in the event of a claim when not insured, the company's guarantees are only as good as their often inadequate net assets.