ProTen Services

[redacted]

Our Ref: F5782Y.2/TC(450)/RB

Buchepa
OM Construction Ltd
Unit 33A Bounds Green Industrial Estate
Ringway
London
N11 2UD

6 October 2009

Dear Buchepa

RE: 53 BEDFORD SQUARE, LONDON, WC1

We thank you for your instructions to inspect the basement pavement vaults for damp penetration, and have pleasure in submitting our report.

All directions given in this Report were taken from the outside of the property facing the front.

Our recommendations are based upon information supplied to us during our telephone conversation and observations made at the time of our inspection. If we have misinterpreted any aspect please notify us immediately as it may be necessary to amend the proposed specification.

Our surveyor reports that it would appear likely our proposals would form part of a larger scheme of improvements to the property. However, he has inspected the dampness affecting the area mentioned, and we now submit our initial report for your information. We shall then look forward to receiving your specific instructions regarding the scope and extent of the proposed treatment.

INSPECTION SUMMARY / SITE HISTORY

BASEMENT PAVEMENT VAULTS

Our inspection was carried out on Wednesday 30 September 2009; during time the prevailing weather conditions were dry and sunny.

The walls of the basement are constructed of bricks and mortar and the floors are un-concreted.

Part of the basement is below the external ground levels and public footpath.

The basement is currently unused and it is the intention that after waterproofing the basement is to be used for general storage.

Protim Services

NOTE:

There are 4 No vaults in total and no previous attempts of damp proofing have been carried out before

Our quotation is for damp proofing one vault

The cost of the remaining units can be based on the same price

At the time of inspection the walls were noted to be very damp, however there was no evidence of "free water" ingress. We are advised that there is no history of flooding over the past few years.

It would appear that dampness to the area is being caused by

- Lateral penetration of capillary held moisture from the adjacent ground
- Dampness rising through the floor
- Rainwater penetrating through the vaulted soffit
- Condensation caused by a combination of high humidity and cold surfaces

DESIGN CRITERIA

Damp proofing to basements is covered by British Standards document BS 8102: 1990 "Protection of structures against water from the ground". This document specifies the performance level for the design of the waterproofing based upon the end use of the basement, grading from 1-4.

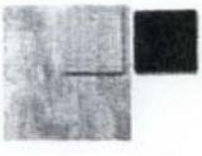
In this instance as the basement is to be used for general storage then the particular grade is 3. Performance at this grade as specified by BS 8102: 1990 assumes a dry environment.

In this particular case even though current conditions and the recent history suggest that hydrostatic pressure is not the source of ingress at this time we have explained that water tables can change, drains can become blocked and heavy rain can cause localised saturation. For this reason the specification attached has been based upon compliance with British Standards in so far as it is practicable.

RADON:

The Health Protection Agency advises that all basements are at particular risk of containing high concentrations of the naturally occurring radioactive gas. This is due to the increased surface area in contact with the ground.

We would be pleased to quote for a Radon Control System on request.



RECOMMENDATIONS

In order to provide a dry surface to the vaulted soffit, floors and walls we have prepared a Specification of Remedial Works. This specification includes. -

a. The installation of a cavity drainage system extending over the vaulted soffit, floors and walls.

b. The installation of a sump pump and drainage to a specified drainage point.

c. We have also included for the provisional sum for the installation of a battery back up which will provide emergency power supply for approximately two – three hours in the event of a power failure. Running time can be extended, if requested, by incorporating additional power packs.

IMPORTANT NOTES:

The application of a waterproofing system is a very sophisticated and technical process. In order to get the most out of the system, we have prepared a few general notes for your guidance. In the event of this property changing hands, we would ask that you ensure this document is passed onto the new owner/occupier.

Whilst we have taken every care in the design of the waterproofing system, there are nevertheless a number of risks associated with this type of work generally that are noted in the Guarantee as exclusions to the enforcement of the warranty.

In addition there are specific risks that we should draw to your attention. These include. -

Surface water flooding. We must stress the system is not designed as a flood defence measure.

Blocked drains or soakaways. Where the drainage system has failed due to lack of maintenance or has backed up due to excessive rainfall.

Where is was not possible to provide a full damp proofing system to all walls below ground level or where access to all walls was restricted. Further ingress from these excluded areas cannot be controlled and therefore will be omitted from Guarantee.

In the event of a power failure and no battery back up provision has been provided or in the unlikely event that power failure exceeds the expected life of the battery back to the pumps.

Cavity Drainage Systems

The cavity drain system is designed to control both water vapour and the penetration of ground water. Once the system is in place, three main functions are achieved. Firstly, the system becomes vapour proof, secondly damp pressure is equalised and thirdly, the system will act as a drained cavity system, controlling water ingress.

Cavity drainage systems work on the principal that any water entering on the 'wet' side of the system is either drained way to a sump chamber and pumped to a drainage point or where local conditions allow (not suitable for hydrostatic situations), by natural drainage.

A cavity drainage system is the most sympathetic system that can be applied to the structure, as it will not induce any additional stresses as a result of increased water pressure.

The cavity drain system that we recommend incorporates pre-formed drainage channels diverting incoming water to collect into a sump chamber where it shall be pumped to an external drainage point. In some cases it may be necessary to pre-form drainage channels around the perimeter of the walls and across the existing concrete slab to aid drainage.

The internal wall finishes are created using factory produced plasterboard sheeting with a skimmed finish. The floor membrane will be overlaid with a cement screed.

DRAINAGE

The effectiveness of the system is dependent upon discharging free water before it can build up behind the system whereby pressure is placed upon the cavity drainage system.

It is therefore essential that an effective drainage system is installed and maintained.

We have included within our quotation for a double pump installation with alarm. The specified sump pump will allow a flow rate of 6 m^3 per hour, which will readily cope with the existing ingress through the structure.

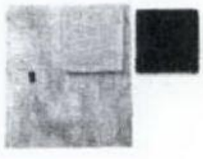
In addition there are numerous back up systems available depending on the degree of failsafe protection the Client requires and the budget allows. We will be pleased to discuss the options with you should you require.

GENERAL

As you will appreciate, the very nature of our work will involve disturbance from noise and dust. This dust pervades the atmosphere, and covers a very large area. Whilst care will be taken we cannot accept responsibility for furniture, fittings, floor coverings, etc. left within the area affected by dust.

If dry air and condensation free conditions are required, then it is essential that efficient through ventilation be provided. At the same time, steps must be taken to insulate cold surfaces. Consideration should also be given to the provisions of an adequate dry form of heating, and/or dehumidification. (Such work is not included in our quotation)

In unventilated areas, it may be necessary to provide a moisture extraction system, such as a dehumidifier. We will advise of this requirement after the initial drying out period has elapsed.



Our specification and quotation is based on observations made at the time of our visit. We cannot accept responsibility for further moisture penetration in areas, which at the time of our visit appeared to be sound. There is always a possibility that moisture may adversely affect areas in addition to those specified, and we are prepared, if so instructed, to submit a quotation for treatment of such additional areas.

We look forward to carrying out the work set out in the Specification of Remedial Work, and our quotation is attached. If you would kindly complete and return to us the Acceptance of Quotation Form, we shall contact you immediately to arrange a suitable commencement date.

ProTen Services is one of the largest and longest established property preservation companies in the U.K., with over 80 year's experience in the industry. With our commitment to quality the client can have complete confidence in the company's recommendations and unique range of treatments.

Yours sincerely
PROTEN SERVICES LIMITED

THOMAS COLLINS CSRT
SURVEYOR

SPECIFICATION OF REMEDIAL WORK TO THE PAVEMENT VAULT

This specification should be read in conjunction with our sketch plan no. F5782Y 2

1. WORK TO BE COMPLETED BY THE MAIN CONTRACTOR

- To all areas scheduled for treatment, remove any fixtures, fittings, or any other items preventing full access to the working area.
- Remove switch sockets and isolate basement ring main. Arrange for the Utility Company to remove mains boxes etc to allow access behind to fit the membrane or waterproof membrane. Similarly arrange for the removal of mains water and gas pipe work as directed by our workmen.
- Arrange for the Utility Company to remove main boxes etc to allow access behind to fit the membrane or waterproof membrane. Similarly arrange for the removal of mains water and gas pipe work as directed by our workmen (others).
- Re-wire sockets and light switches as required.
- Provide within 1.0m of the sump chamber a neon unswitched fused spur ideally on its own circuit. This must not be on the basement ring main. If you are accepting the radon controlling upgrade then you will need to supply an electrical supply for the equipment.
- Remove the concrete floor from within the area shown on the attached plan and relay a reinforced concrete slab all in accordance with the Structural Engineer's specification. This specification should allow for the provision of *either* drainage channels around the perimeter or alternatively for a wall/floor joint within the construction of the slab.
- Prepare the masonry wall and vaulted soffit surface by infilling voids, including old coal access chutes, with bricks and mortar.
- Provide mains electricity and water.
- Cut through the solid floor, excavate a hole to accommodate a sump chamber. Construct a sump chamber as required to house the pumps, size to be determined by the pumping arrangement.
- Install heating / ventilation system to control condensation.

2. WORK TO BE COMPLETED BY PROTEN SERVICES

- Install perimeter drainage channels as required. Insert suitable access points for maintenance.
- Carry out a water flow test to establish falls and low spots. Take out any hollows with a latex screed and form chases as required.

- Provide and fit submersible pumps, alarm system and wire into spur box Run waste using 32mm armoured flexible pipe and or class "c" pipe work to connect to existing rainwater discharge pipe

- Provide and fix John Newton membrane to all walls as indicated on the attached plan also to the vaulted soffit

- Provide and fix John Newton membrane to the floor and sealed to wall membrane with corner strips

- Lay a cement screed over the floor membrane to a minimum thickness of 50mm Incorporate a trap to facilitate access to the sump chamber

- Provide and fix 30x25mm pre-treated battens directly fixed to the wall In this instance it will be necessary to follow the contours of the wall In the event levelling tolerances are in excess of your requirements then an alternative method will be adopted Any variation in costs will be brought to you attention before we proceed with the change specification

- Provide and fix 12mm plasterboards to studwork and apply scrim to joints and skim using multi-coat skim plaster

- In the event your contractor is to supply and fix plasterboards then he should carry out final levelling upon completion of our work

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ProTen Services

Our Ref: F5782Y.2/TC(450)/RB

Buchepa
OM Construction Ltd
Unit 33A Bounds Green Industrial Estate
Ringway
London
N11 2UD

6 October 2009

Dear Buchepa

RE: 53 BEDFORD SQUARE, LONDON, WC1

We thank you for instructing us to quote for damp proofing works as set out in the Specification of Remedial Work attached.

To carrying out Item No. 2 as set out in the Specification of Remedial Work attached.

Quotation for Specification Item No. 2	**£8964.00 per vault**
Battery back up system pc sum of	**£995.00 per vault**

PAYMENT: 50% deposit payable on acceptance. Balance due on completion of work. Interest will be charged for any outstanding account not paid within 7 days of the date of the invoice at a rate of 1.2% per calendar month. Should you wish to pay by credit card the deposit will be debited from your account prior to the commencement of the work, the balance being debited upon completion of the work. The maintenance payment will be in full and due for payment annually two weeks in advance of the anniversary of the completion of the work.

Your attention is drawn to our standard Terms and Conditions and the Important Notes attached. These, together with any observations, recommendations, and specification of work will constitute the contract documents.

All other items are not included in the quotation, and are to be carried out by the main Contractor.

All quotations for our work are subject to the addition of VAT at the standard rate unless otherwise advised by the company.

Our quotation has been prepared on the assumption that the work will be carried out in one continuous visit.

Our quotation is based on our minimum charge, and no allowance will be made if any part of the proposed work is not carried out.

The preparatory works may be unavoidably noisy and dusty. Our quotation assumes that the work will be carried out in normal working hours with no undue restrictions.

Where our treatment involves work to the party walls, the client is advised to obtain agreement in writing from the adjoining owners before our work is carried out. We will not be responsible for unforeseeable damage caused to adjoining properties.

We suggest that a site meeting is held between ourselves, the appointed main contractor and you to discuss the proposed works and to arrange a mutually convenient programme.

GUARANTEE:

The Waterproofing system is guaranteed for 10 years. A specimen copy of the guarantee is enclosed and your attention is drawn to the terms of the guarantee.

For your added security, to add value to your property and for the benefit of possible subsequent owners of the property, we have included in this quotation the benefits of CGS insurance cover. This insurance is approved by the Government's TrustMark Scheme. A leaflet is enclosed for your information. If you do not wish to proceed with this added protection please indicate on the attached acceptance form.

The sump pump carries a 12-month manufactures guarantee; thereafter it will require minimal routine maintenance as per the attached schedule at no more than 12-month intervals.

NOTE:

Maintenance is not included in out quotation and can be carried out by a competent person.

Should you require any further information please do not hesitate to contact us.

We look forward to receiving your further instructions, and if you would kindly complete and return the Acceptance of Quotation form, we shall contact you immediately to arrange a suitable commencement date.

Yours sincerely
PROTEN SERVICES LIMITED

THOMAS COLLINS CSRT
SURVEYOR

By Appointment
to Her Majesty Queen Elizabeth II
Damp Proofing and Timber Treatment Specialists
Protim Services Ltd., Hayes, Middlesex

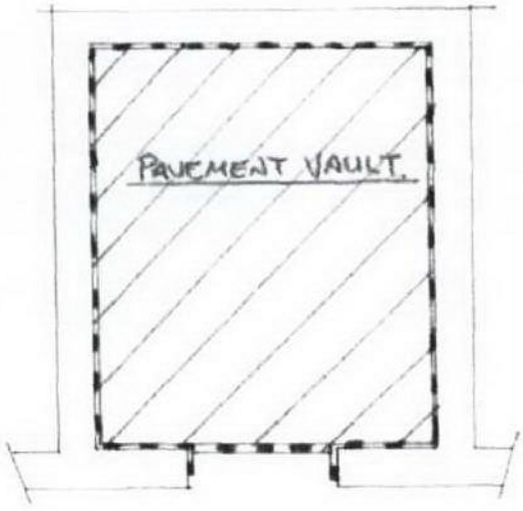
Protim *Services*

SKETCH PLAN

REF NO F57824.2

DATE 30.09.09.

53 BEDFORD SQUARE
LONDON
WC1



CHEMICORE D.P.C.

VERTICAL BARRIER

CRYSTAL/MEMBRANE SYSTEM

AREA OF PROPOSED DRY ROT TREATMENT

SIKMON D.P.C.

HYGROSCOPIC SALT RESISTANT REPLASTERING

SPECIALIST RENDERING

NOT LOCATED

All heights indicated are in metres. (F.H. indicates to ceiling height)

Issue No. 2 April 2004

P119

By Appointment
to Her Majesty Queen Elizabeth II
Damp Proofing and Timber Treatment Specialists
ProTen Services Ltd. Bath

ProTen Services

CLIENT'S GUIDE & RESPONSIBILITIES

EXTENT OF INSPECTION

In general terms our initial inspections will be based upon the interpretation of results from a standard non-destructive inspection and will be restricted to those timbers and walls accessible at the time of our surveyor's visit and within the areas covered by the client's specific instructions. External joinery, sheds and out-buildings are excluded from our inspections.

Any departure from or misinterpretation of the client's instructions should be notified to our surveyor without delay.

Where solid floors or hearths exist it should be assumed that inspection of these will fall outside the scope of our normal non-destructive testing. Core sampling of these items will incur you in the payment of a separate fee. The inspection report is confidential and provided for the sole use of our client. No responsibility will be accepted in relation to third parties, howsoever involved.

MOISTURE INGRESS

Remedial treatment of timber and the insertion of a damp course are not alternatives to sound building practice nor to good and regular maintenance. Proper maintenance is the key to the prevention of further troubles and particular attention should be paid to the following items, where applicable:

- Roof coverings, including flashing, etc.
- Rain water disposal systems (gutters, downpipes, gully's etc.)
- Rain penetration due to defective cills, faulty pointing. Lack of or inadequate flashing to projections, etc.
- Defective external render or bridging by same.
- Proper through ventilation of sub-floor spaces, incorporating honeycombing of sleeper and partition walls and the use of large metal or PVC vents.
- Proper through ventilation of unused chimney flues, ensuring the flues are swept before capping.
- Internal and external plumbing.
- Condensation problems.
- Moisture rising through solid floors and hearths due to the lack of an effective damp proof membrane.

Where sources of moisture ingress have been identified in the report the client must have them rectified without delay and then take appropriate steps to effect rapid drying out.

WALL STRUCTURES

All wall structures scheduled for treatment are assumed to be in good condition and well bonded.

REPLASTERING

Dampness rising from the ground carries with it various salts in solution, which can form substantial deposits in the masonry and in the existing wall plaster. These salts, being hygroscopic, are able to draw moisture to themselves from the air with the result that the walls may remain damp even though the rising damp has been brought under control. Walls treated against rising damp must be replastered in strict accordance with the ProTen Services Limited Replastering Specification. Our quotation excludes dubbing out unless specified separately. In the absence of dubbing out it may be necessary to follow the contours of the wall, and particularly in the case of stone built walls some irregularities will be inevitable.

EARTH RETAINING WALLS

Essentially there are two types of damp problems that can be found affecting earth retaining walls. The first is commonly referred to as capillary held moisture, this emanates from rainwater percolating the soil and penetrating the fabric of the building. The second and more aggressive form of damp is by the passage of free water under hydrostatic pressure into the building. Hydrostatic pressure is usually as a result of a high water table or a perched water table.

In designing a water proofing system to meet your requirements we have taken into consideration British Standards document BS 8102:1990 "Protection of structures against water from the ground". We have included in our report our Design Criteria taking into consideration the requirements of BS8102, subject to your budgetary constraints.

Cavity drainage system/Cementitious and multi-coat renders.

Cavity drainage systems rely on the water being removed before it collects against the underside of the membrane. It is essential that the pumping systems, where fitted, are maintained in accordance with the manufacturer's recommendations and that a continuous electrical supply is provided. Drainage points must be maintained to ensure there is not restriction on the flow of water out of or away from the building.

Great care should be taken when fixing to the dry lining or floor to ensure the membrane is not punctured.

In the case of the cementitious coatings and multi-coat renders on no account must these be pierced or disturbed after the completion of our works. Where this cannot be avoided the Company must be advised and a separate specification for the work will be provided, if indeed such work is possible.

Consideration should also be given to maintaining adequate heating and to provide sufficient ventilation to reduce condensation.

HIDDEN SERVICES

The company cannot accept responsibility for any damage to hidden services, not previously indicated by the client, or where they are not in accordance with relevant codes of practise.

CLIENT'S RESPONSIBILITIES

Generally

Floor coverings, furniture and effects must be removed from the areas to be treated prior to the arrival of our operatives on site.

Note: Where furnishings/floor coverings are not fully removed ProTen Services Limited cannot accept responsibility for any damage caused.

The client must provide clean water, electricity and adequate levels of lighting.

Where the use of an adhesive is necessary, hardboard should be fitted over the floor surfaces, thus providing an ideal base for the floor coverings.

Plants and shrubs adjacent to walls in areas of external treatment must be taken off the wall, bent away from the building and covered with polythene sheeting. Other plants in the vicinity of treatment must be removed or covered up to protect them from the inevitable fallout from spraying, since the materials used are harmful to plants.

The specification of remedial work may include items, which are the responsibility of the client or his builder. These items must be completed within the programme of work, otherwise delays may occur, for which an additional charge may have to be made.