Richard F. Gill & Associates

Consulting Structural Engineers

120 SHENFIELD PLACE
SHENFIELD
ESSEX CM15 9AG

01277 200056

Principal: Richard F.Gill, C.Eng., F. I.Struct.E.
Associates: J. W. Pickrell, C.Eng., M.I.Struct.E.
I.R. Gill, B.Sc.(Hon), C.Eng., M.I.Struct.E.
L.A. Gill, B.Sc.(Hon), C.Eng., M.I.Struct.E., M.I.C.E.

ENGINEER'S REPORT

INSURED NAME: **Punch Taverns PLC**

RISK ADDRESS: **Lord Stanley Public House**
51 Camden Road
London
NW1 9BH

ENGINEERING PRACTICE: **Richard F Gill & Associates**
120 Shenfield Place
Shenfield
Essex
CM15 9AG
Tel/Fax 01277 200056

INSPECTING ENGINEER: **L. A. Gill** BSc Hons.,C.Eng.,M.I.Struct.E.,M.I.C.E.

DATE OF INSPECTION: **8th December 2010**

INSURER: **Punch Partnerships (PLT) Ltd**

ENGINEERS REFERENCE: **10389**

16th March 2011

INTRODUCTION

This report follows our preliminary report dated 14th December dated 14th December 2011.

SITE INVESTIGATIONS

A single trial pit and borehole were excavated to the rear left hand corner as indicated on the attached site plan prepared by Soiltech Surveys.

Foundations were seen to comprise a shallow concrete strip resting 800 mm deep below ground level on firm silty clay. A borehole within the trial pit revealed similar silty clays to termination at 4 m deep, with fragmentation from 1.3 m to 1.7 m deep.

Roots of live appearance up to 10 mm in diameter were noted at underside of foundation with fine live roots to 3.5 m deep within the borehole. Roots taken from the trail pit and borehole and sent for analysis were identified as live Acer roots.

Laboratory testing indicates clays of very high plasticity with clear desiccation between 1 and 2 m deep and probably no desiccation at 2.5 m deep and below.

CONCLUSIONS

The Public House has suffered slight crack damage, category 2 when assessed in accordance with BRE Digest 251, to the single storey rear projection housing the WC and rear left hand corner. Damage has been caused by clay shrinkage subsidence due to the action of tree roots on the shrinkable clay sub-soils. The offending vegetation is indicated on the attached site plan and comprises two large Sycamore trees marked T1 & T2 located 4 – 5 m and 10 – 12 m respectively from the rear left hand corner housing the male toilets.

The property is reportedly located within a conservation area; hence any tree management will need to be notified to the local authority; they may raise objections. Ground conditions are such that tree management is a clear option that will result in stabilisation of the main property, however unless effective tree management is undertaken continued seasonal movements, and eventual underpinning, should be anticipated.

The garden wall to the rear of the pub is cracked and leaning towards the pavement. Damage is such that partial demolition and rebuilding will be required. This damage has similarly been caused by the Sycamore trees as a combination or clay shrinkage subsidence and physical root action.

Whilst rebuilding the garden wall on the existing foundations will leave this wall susceptible to further movements as the ground recovers, with the possibility of further damage occurring, the alternative foundation improvements would cost more than the cost of rebuilding the wall a second time. In our opinion the most economic solution to the garden wall is to rebuild on the existing foundations and accept that further works may be required at a later stage.

RECOMMENDATION

Appoint arboricultural consultants to advise on mitigation.

Continue crack width monitoring.

LIMITATIONS

We have not inspected wood work, damp proof courses, services, foundations except where exposed, or any other part of the structure which was covered, unexposed or inaccessible, and we are therefore unable to report any such part free from defect.

This report has been prepared for the sole use and benefit of Punch Partnerships (PLT) Ltd, and the liability of R. F. Gill and Associates shall not be extended to any third party.

L. A. Gill BSc Hons.,C.Eng.,M.I.Struct.E.,M.I.C.E.
For Richard F. Gill and Associates

16th March 2011

Site Plan:

Sheet: 1 OF 1

Ref No:

Not to scale:

Date: 05-01-2011

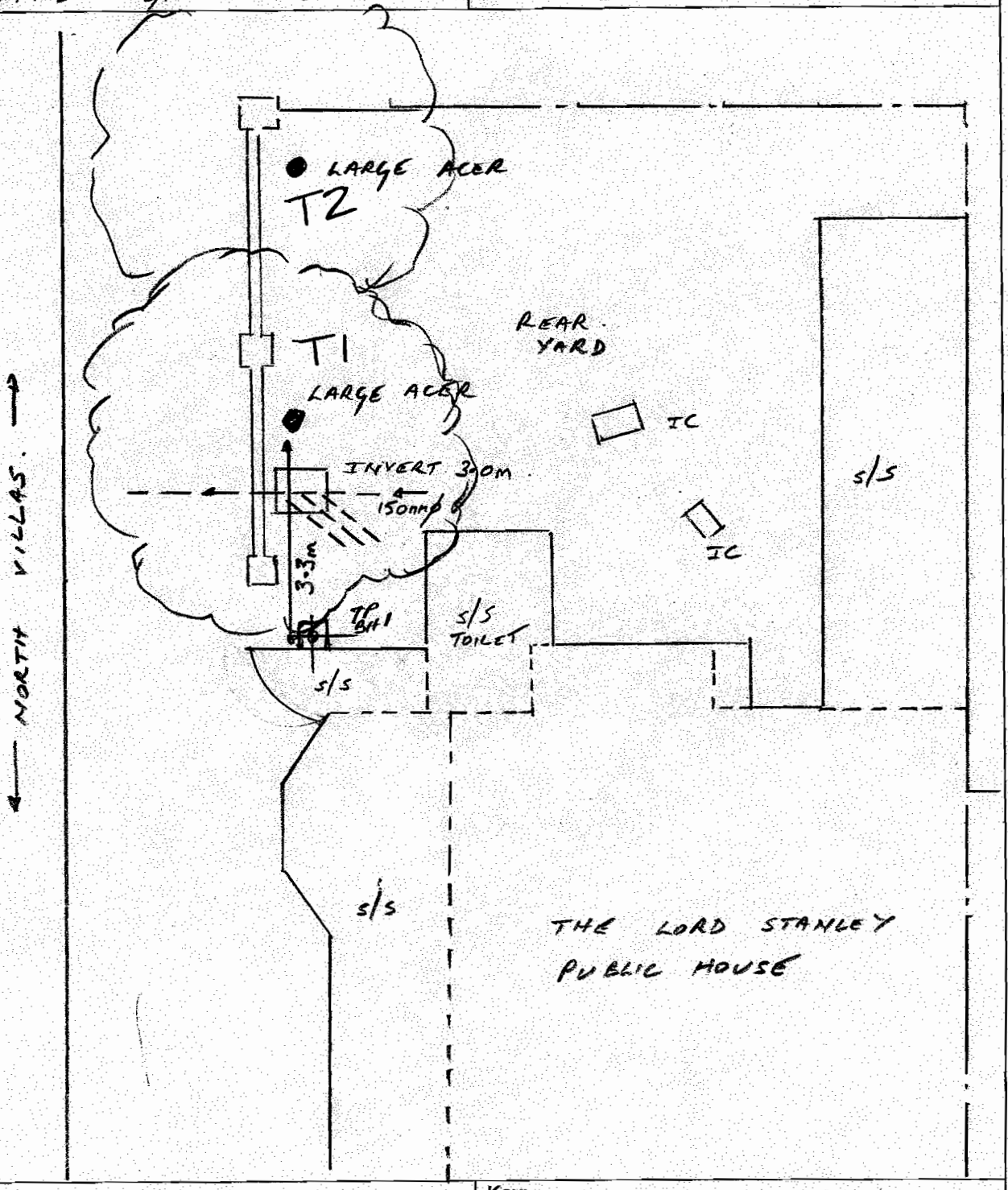
Client: RICHARD F GILL & ASSOC

Soiltech Surveys

Foundation Investigation & Test Drilling

Tel/Fax: 01245 496389

Site: THE LORD STANLEY PUBLIC HOUSE
51, CAMDEN PARK ROAD
LONDON NW1.



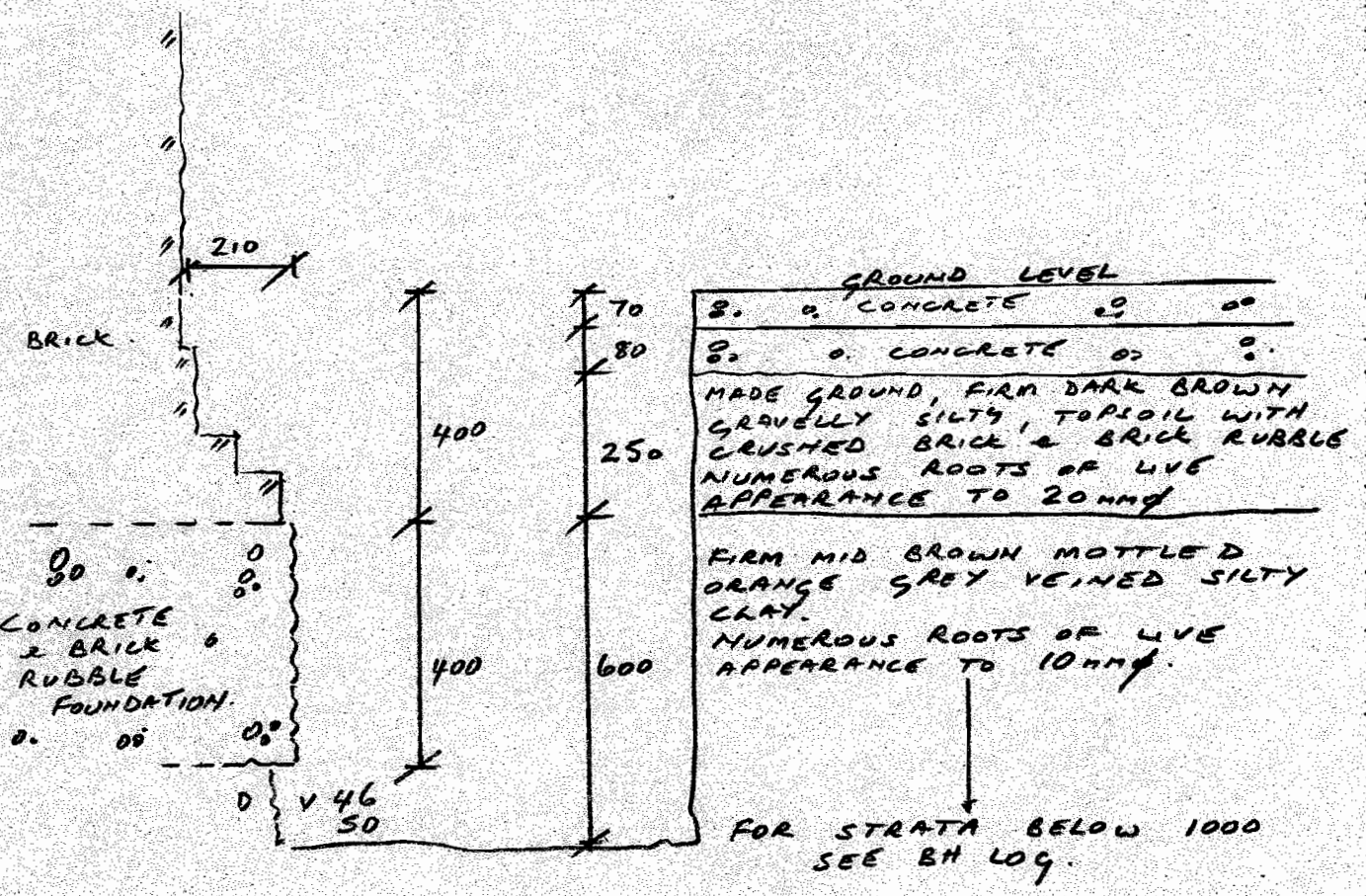
Remarks:

Tree identification not authenticated.

Key:

T.P = Trial pit.
B.H = Borehole.
H = Approximate height.
G = Gulley.
SVP = Soil vent pipe.
IC = Inspection chamber.
IL = Invert level.
RWP = Rain water pipe.

Trial pit No: 1	Sheet: 1 of 1	**Soiltech Surveys**
	Ref No:	**Foundation Investigation & Test Drilling**
		Tel/Fax: 01245 496389
Not to scale:	Date: 05-01-2011	Site: THE LORD STANLEY PUBLIC HOUSE 51, CAMDEN PARK ROAD LONDON NW1.
Client: RICHARD F GILL & ASSOC		



Remarks:	Key: **D** = Small Disturbed sample **W** = Water sample **U** = Undisturbed sample **B** = Bulk sample **S.P.T.** = Standard Penetration Test **M** = Mackintosh Probe Penetration Test **V** = Pilcon Shear Vane Test

Borehole No: 1

Sheet: 1 OF 1

Ref No:

Boring Method: HAND TOOLS

Date: 05-01-2011

Client: RICHARD F GILL & ASSOC

Soiltech Surveys

Foundation Investigation & Test Drilling

Tel/Fax: 01245 496389

Site: THE LORD STANLEY PUBLIC HOUSE
51, CAMDEN PARK ROAD
LONDON NW1

Depth (m)	Description	Sample	Test Type Result	Field Comments	Depth to Water
.1					
.2					
.3					
.4					
.5	AS TRIAL PIT 1			AS TRIAL PIT 1	
.6					
.7					
.8					
.9		1.0			
1.0	STIFF MID BROWN MOTTLED	D	V 106	1.0m NUMEROUS	
.1	ORANGE GREY VEINED SILTY		110	ROOTS OF LIVE	
.2	CLAY.			APPEARANCE	
.3				TO 3mm ϕ.	
1.3	VERY STIFF FRIABLE MID BROWN	1.5			
.5	MOTTLED ORANGE GREY VEINED	D	V 140+	1.5m NUMEROUS	
.6	SILTY CLAY		140+	ROOTS OF LIVE	
.7				APPEARANCE TO	
1.8	STIFF MID BROWN MOTTLED			1mm ϕ.	
.9	ORANGE GREY VEINED SILTY	2.0			
.0	CLAY WITH CRYSTALS.	D	V 110		
.1			116		
.2				WATER SEEPAGE	2.2m
2.3	CLAYSTONE 2.1 TO 2.2m				
.4		2.5			
.5		D	V 122	2.5m SEVERAL ROOTS	
.6			130	OF LIVE APPEARANCE	
.7				TO 1mm ϕ.	
.8					
.9		3.0			
.0		D	V 140+	3.0m	
.1			140+	SEVERAL HAIR	
.2				& FIBEROUS ROOTS	
.3					
.4		3.5			
.5		D		TO 3.5m.	
.6					
.7					
.8					
.9		4.0			
4.0	BH. ENDS AT 4.0m.	D	V 128		
.1			124		
.2					
.3					
.4					
.5					
.6					
.7					
.8					
.9					
.0					

Remarks:

BH OPEN ON COMPLETION
STANDING WATER 3.9m BELOW
G.L. ON COMPLETION.

Key:

D = Small Disturbed sample
U = Undisturbed sample
S.P.T. = Standard Penetration Test
M = Mackintosh Probe Penetration Test
V = Pilcon Shear Vane Test
W = Water sample
B = Bulk sample

Tree Root Identification Limited

ADDRESS FOR CORRESPONDENCE: 3 Langley Drive, Kinnoull Hill, PERTH, PH2 7XA

TELEPHONE: 01738 630873 e-mail: rdmmacleod@btconnect.com

web site: www.treerootidentification.co.uk

8th January 2011

Richard F. Gill and Associates
120 Shenfield Place
Shenfield
Essex
CM15 9AG

Dear Sirs,

Re: The Lord Stanley Public House, 51 Camden Park Road, London, NW1 9BH.
Our reference: 080111.

I have completed my examination of root samples taken from the above property. The results were as follows –

Trial pit/ Borehole	Root diameter (mm)	Tree, shrub or climber from which root originates	Result of starch test#
TP1 (roots underside foundation)	8.0	Acer (sycamore; maple)	positive
BH1 (roots at a depth of 1.0 to 1.5m)	2.0	Acer (sycamore; maple)	positive

The presence of starch indicates that the root was alive in the recent past.

Yours faithfully,

Ronald MacLeod

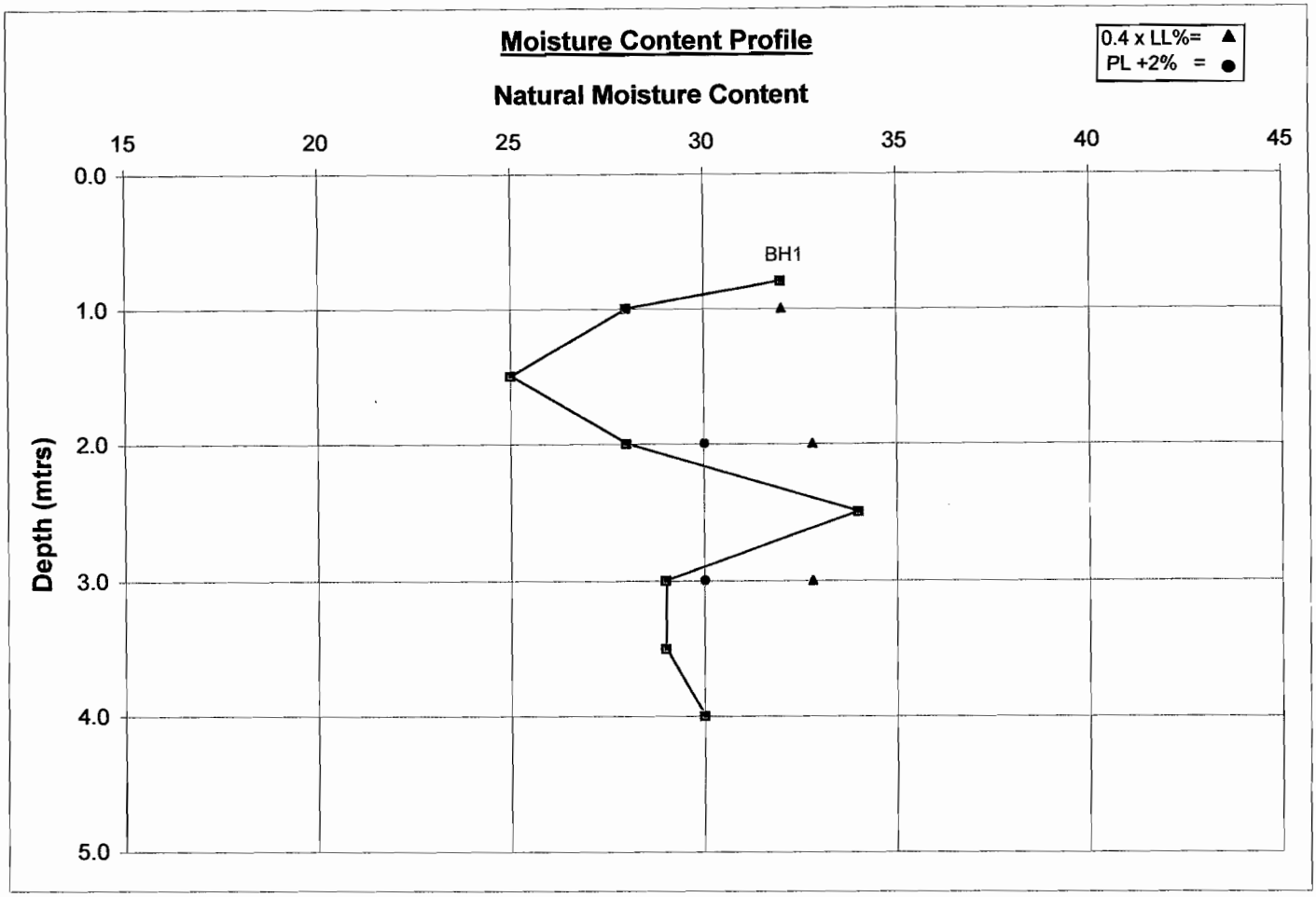
DR R D MACLEOD
Principal Scientist

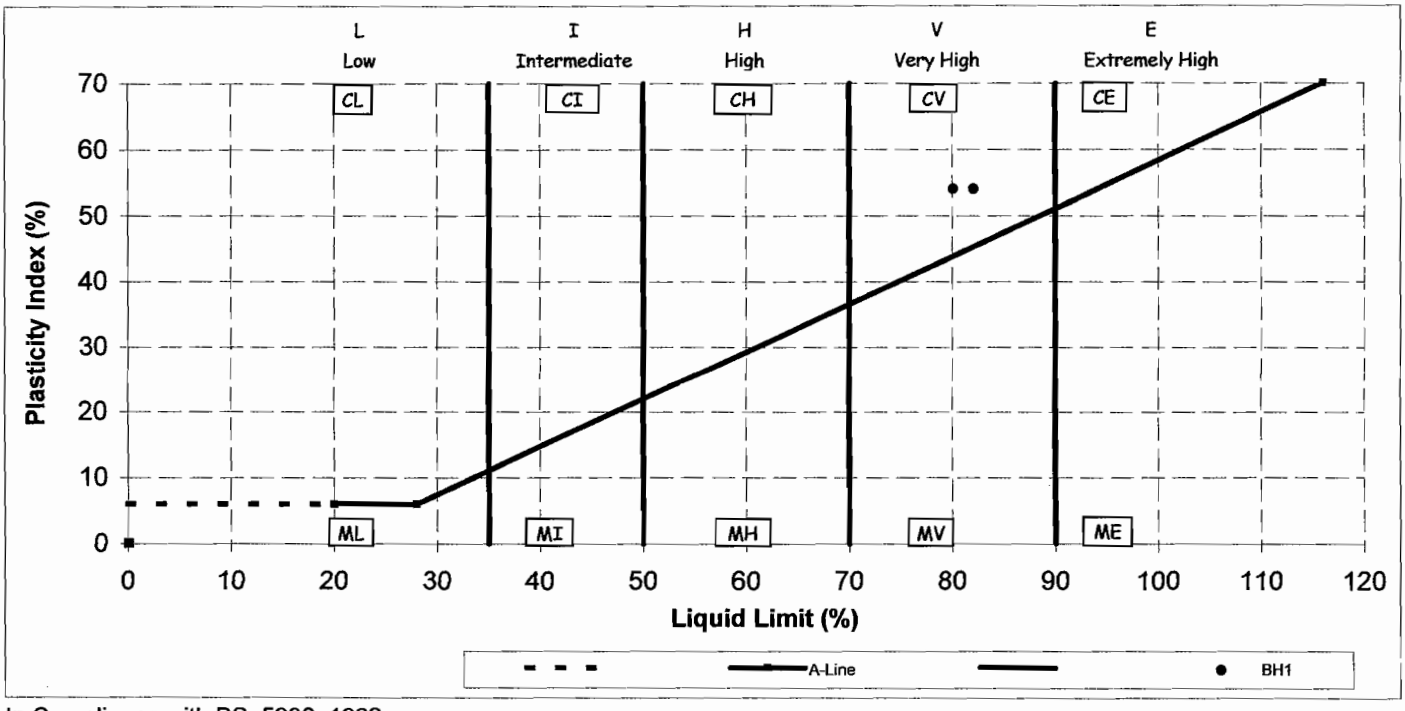
Meridian Soils Limited

Highwood Cottage, Ingatestone Road, Highwood, Essex. CM1 3RA
Telephone:- 01277356688 Fax:- 01277354031

Our Ref: S.4749 **Client Ref:**

Location: The Lord Stanley Pub, 51 Camden Park Road, London, NW1 9BH. **Date:** 19th January 2011





In Compliance with BS. 5930: 1982

Notes:

1) Unless specifically noted, the profiles have not been related to a site datum

2) If plotted, 0.4 LL and PL +2 (after Driscoll, 1983) should only be applied to London Clay (and similar overconsolidated clays) at shallow depths.

Meridian Soils Limited

Highwood Cottage, Ingatestone Road, Highwood, Essex. CM1 3RA
Telephone :- 01277 356688 Fax :- 01277 354031

Our Ref: S.4749 **Client Ref:**

Location: The Lord Stanley Pub, 51 Camden Park Road, London, NW1 9BH. **Date:** 19th January 2011

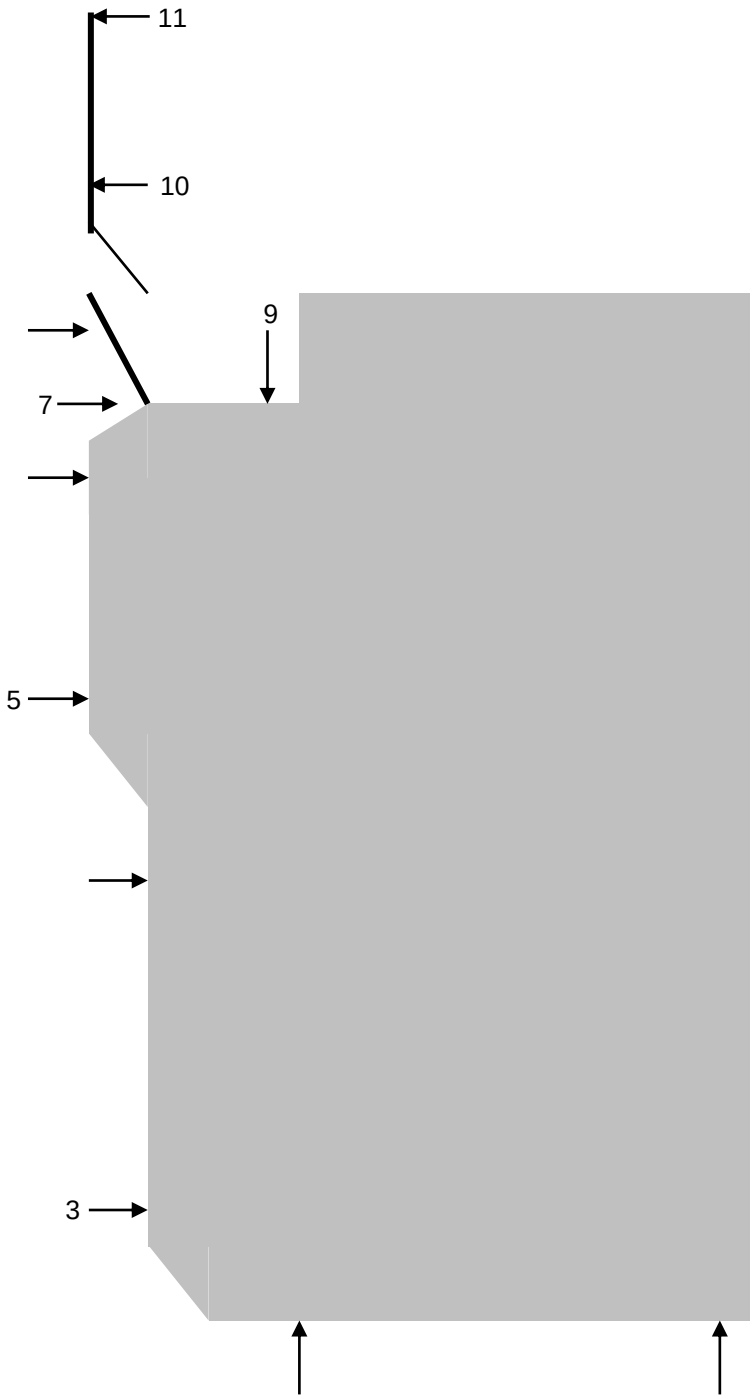
TP/BH No.	Sample No.	Depth mtrs.	Moisture Content %	Passing 0.425um sieve %	Equivalent Moisture %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Soil Class	Modified Plasticity Index %	Water Soluble Sulphate (g/l^{-1} SO_4)	pH value	Sulphate Class
1		0.80 (U.S)	32										
		1.00	28	100	28	80	26	54	CV	54			
		1.50	25										
		2.00	28	100	28	82	28	54	CV	54			
		2.50	34										
		3.00	29	100	29	82	28	54	CV	54			
		3.50	29										
		4.00	30										

References

BS 1377:Part 2:1990
BS 5930:1981

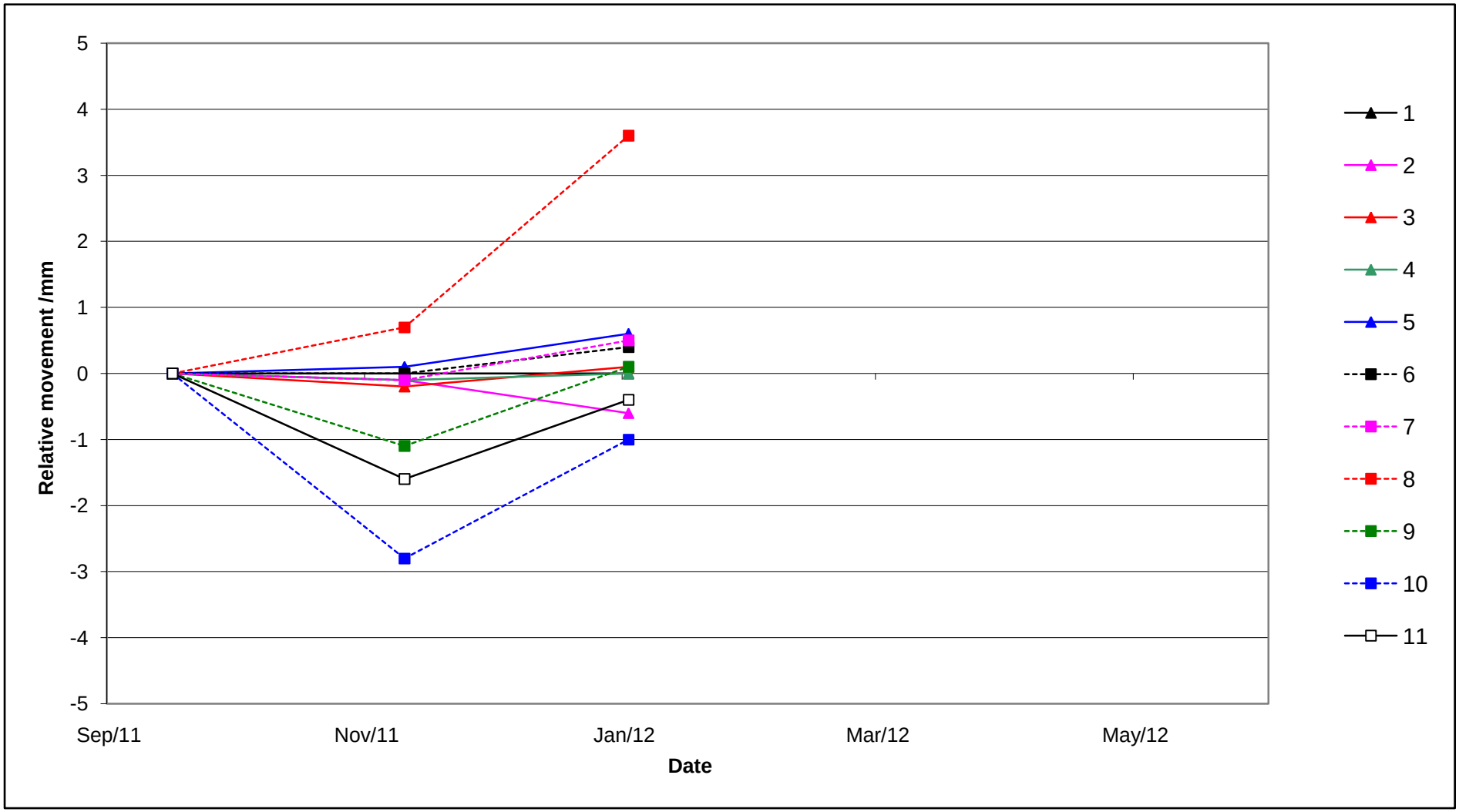
Level Monitoring - Site Sketch

Our Ref: 00/25620 **Date of Issue 04/01/2012**



Level Monitoring - Movement relative to datum against Date

Our Ref: 00/25620 **Issue Date:** 04/01/2012



Address :	The Lord Stanley Public House 51 Camden Park Road London
Postcode :	NW1 9BH

Report date :	02 January 2012
MS Ref :	25620
Reference Number:	QG1S116052/KEET/AXK
Owner/occupier :	Adam Phillips
Job status :	9 months completed
Frequency :	8 Weeks
Next report due :	November 2011

Visit summary :

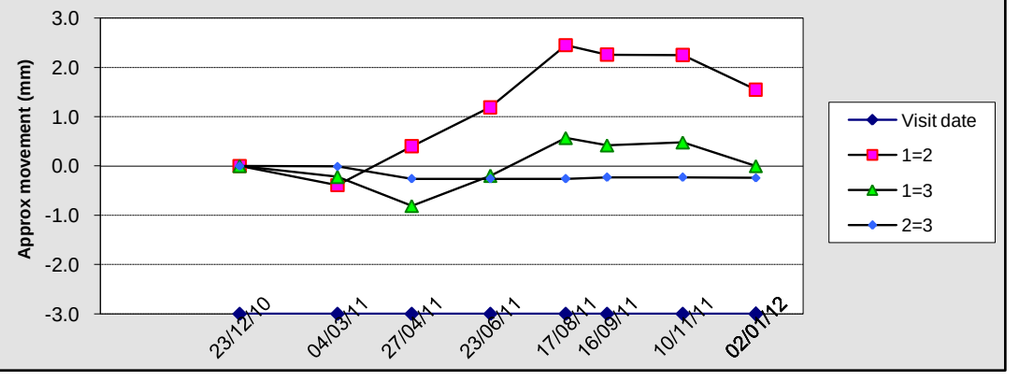
Customer issues : No Comment

New cracking :- 0

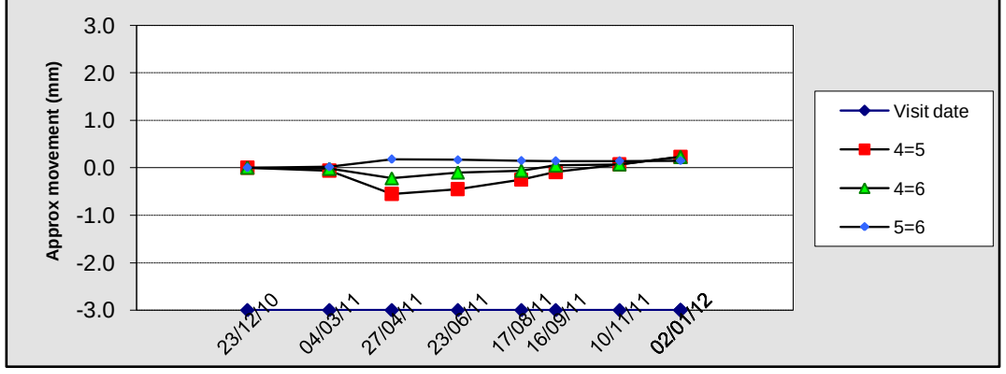
Additional comments :

#N/A

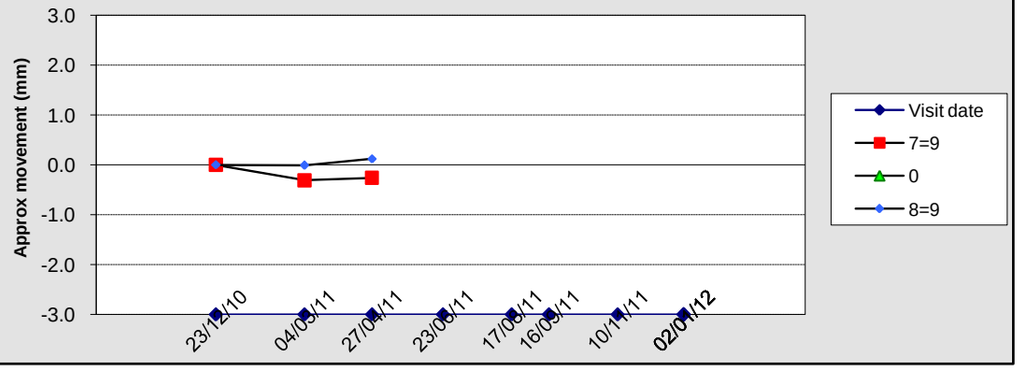
1 INT Lobby to male w/c behind door from bar



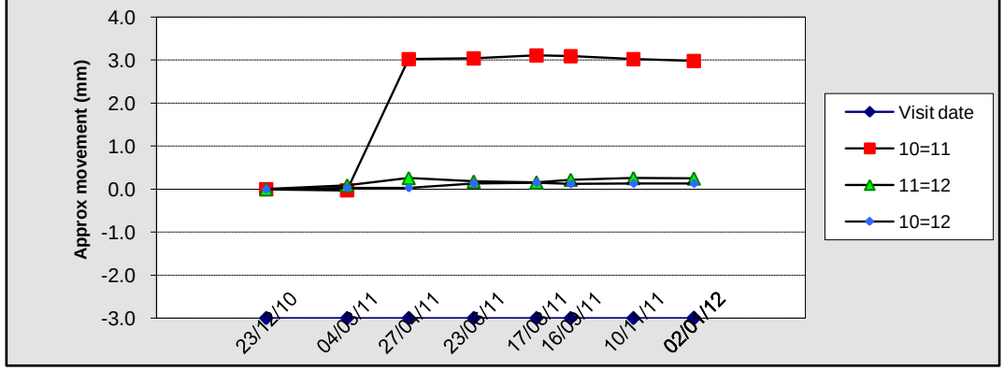
2 EXT to left hand side of central pillar



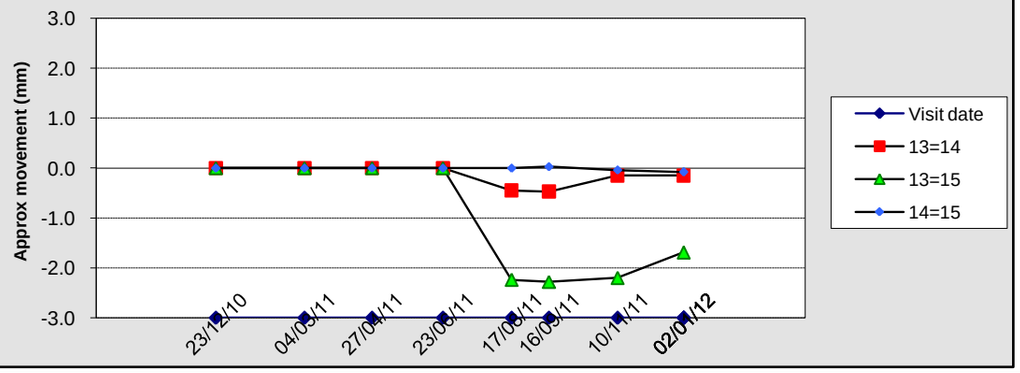
3 REPLACED



4 EXT to the right hand side of central pillar



5 EXT to the centre of the pillar



6 0.00