UKAS INSPECTION
8883

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Asbestos Refurbishment Survey

The Horniman Museum & Gardens

The Horniman Museum & Gardens
South Hall – Boiler Room
100 London Road
Forest Hill
London
SE23 3PQ

Job Number 17173
Issue: 01

12th July 2017

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THE DE GROUP

Contents

Report Authorisations

Quality Check

Report Author	Charlotte Carr		
Report Compiled On:	18th July 2017		
Lead Surveyor:	Warren Green		
Date Checked:	18th July 2017		
Quality Check:	Robin Nower		
Date Authorised:	21st July 2017		
Date Issued:	21st July 2017	To:	Tim Hopkins (The Horniman Museum and Gardens)

Issue Summary Table

Issue 01	Original Issue

Survey Details

Client Details

Company:	The Horniman Museum and Gardens
Contact:	Tim Hopkins
Address:	The Horniman Museum and Gardens 100 London Road Forest Hill London SE23 3PQ

Survey Scope and Methodology

Site Address:	The Horniman Museum and Gardens South Hall – Boiler Room 100 London Road Forest Hill London SE23 3PQ		
Site Description	The Horniman Museums and Gardens is a British Museum in Forest Hill, London, England. Commissioned in 1898, it opened in 1901 and was designed by Charles Harrison Townsend in the arts and craft style.		
Survey Type:	Refurbishment	Date(s) of Survey:	12th July 2017
Scope of Survey:	A Refurbishment Survey was required to be undertaken in the South Hall Boiler Room and associated plant areas at the Horniman Museum and Gardens which are due to undergo Refurbishment works prior to the boiler replacement project within the south hall boiler room which includes the stripping out of all existing boiler and hot water equipment within the plant room. There will also be some penetrations to allow for a flue route to be installed. The rooms to be surveyed included the following • South Hall Boiler Room • Plant Pit • Escape Corridor • Electrical Intake		
Agreed Excluded Areas:	All plant and services were treated as live unless isolations were carried out by a qualified person (provided by the client) and isolation certification was provided until then visual assessments were made and presumption made based on age and manufacturer. No provision for access into Floor ducts/ Drain covers had been made for the purpose of this survey. Only the areas detailed on the plans were surveyed all other areas remained out the scope of the survey.		

	As the Building is Grade II listed No intrusion was made through listed fabric or to any items of historical interest including • Timber cladding • Decorative paint or wall paper finishes • Original doors • Windows and external façade • Walls and decorative plasterwork (coving, ceiling rose etc)
Deviations from Standard Methods:	None

The survey was carried in accordance with in-house procedure DEPROC04 and HSG264 – Asbestos: The Survey Guide, unless stated above, and by lead asbestos surveyors who are authorised for this inspection and property type. A Derisk UK approved UKAS accredited laboratory was used to analyse all samples taken as described in HSG248 – Asbestos: The analysts' guide for sampling, analysis and clearance procedures. Copies of the full certificate(s) are included within this report (Section – Certificate of Analysis).

Refurbishment Survey

A refurbishment survey is used to locate as far as reasonably practicable, the presence and extent of any suspected ACM's within the client defined scope of works. Areas that have not been mentioned within the scope outlined above should be deemed as not inspected within this report. Destructive and intrusive inspections have been used in areas agreed with the client to investigate sealed areas, no intrusions have been made through items that were presumed on site to contain asbestos fibres.

This survey does not include inspections below any floor slab unless specifically stated as inspected within this survey report.

The purpose of this survey is to assist the client in compiling a detailed asbestos removal specification, to manage any asbestos materials which remain in-situ during the planned refurbishment works and allow for designers and contractor to assess asbestos risks prior to tendering for proposed works.

The survey report alone should not be used as an asbestos removal specification or reason not be undertake a site visit for compiling a quotation or RAMS documentation. All quantities within the report are estimates only.

Navigating and Understanding the Survey Report

Overview of Sample/ Observation Numbering/ Suffix Lettering and Drawing Annotations

This report uses the following system to identify observations, sample locations, referrals and presumptions.

Each entry within the survey report will be given a unique number following in a sequence. Inspections/ observation are shown on the floor plans within a square. Samples, presumptions and referrals are shown on the floor plans within a circle.

All entries which are presumptions are suffixed with a '**P**', referred samples are suffixed with an '**R**'.

All positive samples, referrals and presumptions are in '**red**' font on the floor plans. Negative samples or referrals on the floor plans are shown in a '**black**' font.

All observations are in a '**black**' font on the floor plans.

Where possible material extents will be shaded on the floor plans in '**red**' for positive, presumed and referenced samples. Limited or restricted areas will be shaded on the floor plans in '**purple**'. All areas out of agreed scope of this survey will be shaded '**grey**'. Inspections and non-asbestos materials are not shaded on the floor plans.

Executive Summary – Asbestos Containing Materials

Room/ Area Location and Description	Inspection/ Sample No.	MATERIAL ASSESSMENT				Hazard Score	Hazard Rating	Quantity	Recommendation
		Asbestos Type	Product	Extent of Damage	Surface Treatment				
B.01 Boiler Room Residue to the white painted metal pipe. Located above the boiler door entrance.	02	Amosite	Residue	Low	Sealed	7	Medium	9m	Remove
B.01 Boiler Room Residue to the white painted pipe. Located at high level.	03	Amosite Chrysotile	Residue	Low	Sealed	7	Medium	9m	Remove
B.01 Boiler Room Residue to the white painted metal pipe. Located at high level.	04	Amosite Chrysotile	Residue	Low	Sealed	7	Medium	13m	Remove
B.01 Boiler Room Gasket to the metal flange to the pipe.	09	Chrysotile	Gaskets	Good Condition	Composite	3	Very Low	2 no.	Remove
B.01 Boiler Room Residue to the white painted solid ceiling.	14	Amosite	Residue	Medium	Sealed	8	Medium	80m^2	Remove
B.01 Boiler Room Residue to the white painted solid ceiling.	15	Amosite	Residue	Medium	Sealed	8	Medium	80m^2	Remove
B.01 Boiler Room Residue to the two painted pipes from the solid ceiling level. Paint is flaking from the two pipes.	16	Amosite	Residue	Medium	Unsealed	9	Medium	10m	Remove

Room/ Area Location and Description	Inspection/ Sample No.	MATERIAL ASSESSMENT				Hazard Score	Hazard Rating	Quantity	Recommendation
		Asbestos Type	Product	Extent of Damage	Surface Treatment				
B.01 Boiler Room Residue to the painted single metal pipe. Painted pipe is flaking.	17	Amosite	Residue	Medium	Unsealed	9	Medium	6m	Remove
B.01 Boiler Room Snots off the white painted brick wall. Located above the front boiler room entrance.	18	Amosite	Residue	Low	Sealed	7	Medium	200m^2	Remove
B.01 Boiler Room Snots off the white painted brick walls.	21	Amosite Chrysotile	Residue	Low	Sealed	7	Medium	200m^2	Remove
B.01 Boiler Room Debris from beneath the red painted solid floor.	23	Amosite	Debris	Low	Sealed	6	Low	80m^2	Remove
B.01 Boiler Room Dust and Debris to solid drainage pit. Dust and debris present internally inside drainage pit beneath the metal drainage covers.	25	Amosite Chrysotile	Dust Debris	High	Unsealed	11	High	3m^2	Remove
B.01 Boiler Room Dust and debris to boiler room chimney.	26	Amosite Chrysotile	Dust Debris	High	Unsealed	11	High	1m^2	Remove

Executive Summary - Limited or No Access Areas

There were no further areas of limited or no access during this survey in additional to those highlighted within the scope of works.

Observations – Basement

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Solid soffit ceiling. Breezeblock and brick walls (painted white). Solid floor painted red. Ali cased MMMF lagged metal pipes painted white. Unlagged metal pipes painted red. Plastic pipes. RSJ beams and columns. Electric distribution boxes. Metal ductwork. Metal boiler and generators. Metal cable tray and cables. Metal conduits. Timber header panel. Timber frames. Two timber doors with a timber core and no lining panels. Solid drainage pit. Brick built chimney stack with a metal extraction pipe and metal hatch door.	01	-	-	-	-	-	-	   

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Inspection 01 continued.	01	-	-	-	-	-	-	   

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Inspection 01 continued.	01	-	-	-	-	-	-	 
B.01 Boiler Room	Residue to the white painted metal pipe. Located above the boiler door entrance.	02	Amosite	Residue	9m	Low	Sealed	Remove and environmentally clean area.	 

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Residue to the white painted pipe. Located at high level.	03	Amosite Chrysotile	Residue	9m	Low	Sealed	Remove and environmentally clean area.	 
B.01 Boiler Room	Residue to the white painted metal pipe. Located at high level.	04	Amosite Chrysotile	Residue	13m	Low	Sealed	Remove and environmentally clean area.	 

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Residue to the white painted metal pipe. Located at high level.	05	Non-asbestos	Residue	13m	Low	Sealed	N/A	 
B.01 Boiler Room	Residue to the white painted metal pipe.	06	Non-asbestos	Residue	12m	Low	Sealed	N/A	 

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Sample 06 continued.	06	-	-	-	-	-	-	
B.01 Boiler Room	Gasket to the metal flange to the pipe.	07	Non-asbestos	Gaskets	1 no.	Good Condition	Composite	N/A	
B.01 Boiler Room	Gasket to the metal flange to the pipe.	08	Non-asbestos	Gaskets	4 no.	Good Condition	Composite	N/A	
B.01 Boiler Room	Gasket to the metal flange to the pipe.	09	Chrysotile	Gaskets	2 no.	Good Condition	Composite	Remove	

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Gasket to the metal flange to the pipe.	10	Non-asbestos	Gaskets	1 no.	Good Condition	Composite	N/A	
B.01 Boiler Room	Gasket to the metal flange to the pipe.	11	Non-asbestos	Gaskets	4 no.	Good Condition	Composite	N/A	
B.01 Boiler Room	Gasket to the metal flange to the pipe.	12	Non-asbestos	Gaskets	3 no.	Good Condition	Composite	N/A	
B.01 Boiler Room	Gasket to the metal flange to the pipe.	13	Non-asbestos	Gaskets	1 no.	Good Condition	Composite	N/A	

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Residue to the white painted solid ceiling.	14	Amosite	Residue	80m²	Medium	Sealed	Remove and environmentally clean area.	 
B.01 Boiler Room	Residue to the white painted solid ceiling.	15	Amosite	Residue	80m²	Medium	Sealed	Remove and environmentally clean area.	 

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Residue to the two painted pipes from the solid ceiling level. Paint is flaking from the two pipes.	16	Amosite	Residue	10m	Medium	Unsealed	Remove and environmentally clean area.	 
B.01 Boiler Room	Residue to the painted single metal pipe. Painted pipe is flaking.	17	Amosite	Residue	6m	Medium	Unsealed	Remove and environmentally clean area.	 

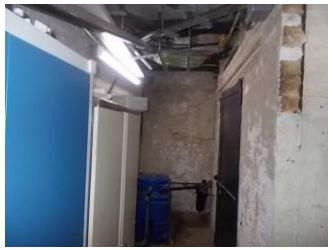
Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Snots off the white painted brick wall. Located above the front boiler room entrance.	18	Amosite	Residue	200m²	Low	Sealed	Remove and environmentally clean area.	 
B.01 Boiler Room	Snots off white painted brick walls. The walls are heavily painted, intrusion made to the brick walls through all the layers of the white paint.	19	Non-asbestos	Residue	200m²	Low	Sealed	N/A	 

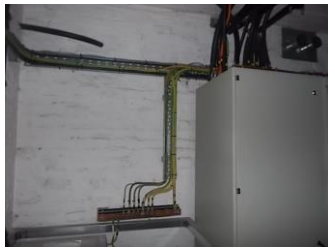
Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Insulating panels to the perimeter timber door frames.	20	Non-asbestos	Insulating Board	<1m²	Medium	Composite	N/A	 
B.01 Boiler Room	Snots off the white painted brick walls.	21	Amosite Chrysotile	Residue	200m²	Low	Sealed	Remove and environmentally clean area.	 

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Snots off the white painted brick walls.	22	Non-asbestos	Residue	200m²	Low	Composite	N/A	 
B.01 Boiler Room	Debris from beneath the red painted solid floor.	23	Amosite	Debris	80m²	Low	Sealed	Remove and environmentally clean area.	
B.01 Boiler Room	Debris from beneath the red painted solid floor.	24	Non-asbestos	Debris	80m²	Low	Sealed	N/A	

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.01 Boiler Room	Dust and debris to the solid drainage pit. Dust and debris present internally inside drainage pit beneath the metal drainage covers.	25	Amosite Chrysotile	Dust Debris	3m²	High	Unsealed	Remove and environmentally clean area.	 
B.01 Boiler Room	Dust and debris to the boiler room chimney.	26	Amosite Chrysotile	Dust Debris	1m²	High	Unsealed	Remove and environmentally clean area.	

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.02 Fire Escape Walkway	Solid soffit ceiling. Breezeblock walls. White painted brick walls. Solid floor. Metal fire door, no lining panels present. Unlagged metal pipes.	27	-	-	-	-	-	-	 
B.02 Fire Escape Walkway	Insulating panels to the timber door frames. Refer to sample 20 for analysis.	28R	Non-asbestos	Insulating Board	<1m^2	Medium	Sealed	N/A	 

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.02 Fire Escape Walkway	Snots to the white painted brick walls.	29	Non-asbestos	Residue	20m^2	Low	Sealed	N/A	
B.03 Electric Store	Solid soffit ceiling. Breezeblock walls. White painted brick walls. Solid floor. Unlagged metal pipes. Timber door with a timber core and no lining panels.	30	-	-	-	-	-	-	 
B.04 Electrical Intake Room	Solid soffit ceiling. White painted solid walls. Solid floor. Electric intake cupboards. Metal door.	31	-	-	-	-	-	-	

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.04 Electrical Intake Room	Snots to the white painted brick walls.	32	Non-asbestos	Residue	60m²	Low	Sealed	N/A	 
B.05 Plant Pit	Metal ductwork. MMMF insulation wrapped around the metal pipes. Plastic drainage down pipes. Metal fire door. Solid floor. No Gaskets or flange joints present.	33	-	-	-	-	-	-	 

Room/Area	Observation/Comment	Inspection/ Sample No.	Analysis Result	Product	Quantity	Extent of Damage	Surface Treatment	Recommendation	Photo
B.05 Plant Pit	Inspection 33 continued.	33	-	-	-	-	-	-	

Certificate of Analysis

KOVA
Asbestos Consultants

Kova Asbestos Consultants Ltd
Heath House, 141 Heath Drive
Chelmsford, Essex CM2 9HQ
Tel: 01245 929029
Email: enquiries@kovaasbestos.co.uk

UKAS TESTING
7736

CLIENT DETAILS

FAO: Survey Department
Derisk LTD
Burdett House,
15-16 Buckingham Street,
London,
WC2N 6DU

BULK ANALYSIS REPORT

Report No: - BK 2674
Date Sample Received: 17-Jul-17. Confirmation Date: 18-Jul-17
Job No: - 16163. Survey No (if applicable): -
Order No: -17173
Client Reference: -
Sample Source: - Brought in by Client

Report For : - Horniman museum, South Hall Boiler Room 100 London Road Forest Hill London SE23 3PQ

Samples analysed between 17 July 2017 and 18 July 2017

Sample No	Client Ref	Sample Location/Description	Material Type (See # Note)	Asbestos Fibre Type
2674-1	02	B.01 - Boiler Room (Basement) - Residue from white painted metal pipe	Residue	Amosite
2674-2	03	B.01 - Boiler Room (Basement) - Residue from white painted metal pipe	Residue	Amosite & Chrysotile
2674-3	04	B.01 - Boiler Room (Basement) - Residue from white painted metal pipe	Residue	Amosite & Chrysotile
2674-4	05	B.01 - Boiler Room (Basement) - Residue from white painted metal pipe	Residue	No Asbestos Detected
2674-5	06	B.01 - Boiler Room (Basement) - Residue from white painted metal pipe	Residue	No Asbestos Detected
2674-6	07	B.01 - Boiler Room (Basement) - Gasket from metal flange to pipe	Gasket	No Asbestos Detected
2674-7	08	B.01 - Boiler Room (Basement) - Gasket from metal flange to pipe	Gasket	No Asbestos Detected
2674-8	09	B.01 - Boiler Room (Basement) - Gasket from metal flange to pipe	Gasket	Chrysotile
2674-9	10	B.01 - Boiler Room (Basement) - Gasket from metal flange to pipe	Gasket	No Asbestos Detected
2674-10	11	B.01 - Boiler Room (Basement) - Gasket from metal flange to pipe	Gasket	No Asbestos Detected
2674-11	12	B.01 - Boiler Room (Basement) - Gasket from metal flange to pipe	Gasket	No Asbestos Detected
2674-12	13	B.01 - Boiler Room (Basement) - Gasket from metal flange to pipe	Gasket	No Asbestos Detected
2674-13	14	B.01 - Boiler Room (Basement) - Residue from white painted solid ceiling	Residue	Amosite
2674-14	15	B.01 - Boiler Room (Basement) - Residue from white painted solid ceiling	Residue	Amosite
2674-15	16	B.01 - Boiler Room (Basement) - Residue from painted pipes X2 from solid ceiling level	Residue	Amosite
2674-16	17	B.01 - Boiler Room (Basement) - Residue from painted single metal pipe	Residue	Amosite
2674-17	18	B.01 - Boiler Room (Basement) - Snots off white painted brick wall	Residue	Amosite
2674-18	19	B.01 - Boiler Room (Basement) - Snots off white painted brick wall	Residue	No Asbestos Detected
2674-19	20	B.01 - Boiler Room (Basement) - Insulating panels from perimeter timber door frames	Board	No Asbestos Detected
2674-20	21	B.01 - Boiler Room (Basement) - Snots off white painted brick wall	Residue	Amosite & Chrysotile
2674-21	22	B.01 - Boiler Room (Basement) - Snots off white painted brick wall	Residue	No Asbestos Detected
2674-22	23	B.01 - Boiler Room (Basement) - Debris from beneath painted solid floor	Debris	Amosite
2674-23	24	B.01 - Boiler Room (Basement) - Debris from beneath painted solid floor	Debris	No Asbestos Detected
2674-24	25	B.01 - Boiler Room (Basement) - Debris from solid drainage pit	Debris	Amosite & Chrysotile

Registered in England No. 09222072

KOVA
Asbestos Consultants

Kova Asbestos Consultants Ltd
Heath House, 141 Heath Drive
Chelmsford, Essex CM2 9HQ
Tel: 01245 929029
Email: enquiries@kovaasbestos.co.uk

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Samples analysed between 17 July 2017 and 18 July 2017

Sample No	Client Ref	Sample Location/Description	Material Type (See # Note)	Asbestos Fibre Type
2674-25	26	B.01 - Boiler Room (Basement) - Dust and debris from boiler room chimney	Dust/Debris	Amosite & Chrysotile
2674-26	29	B.02 - Fire Escape Walkway (Basement) - Snots off white painted brick wall	Residue	No Asbestos Detected
2674-27	32	B.04 - Electric Intake Room (Basement) - Snots off white painted brick wall	Residue	No Asbestos Detected

Sample(s) of material referenced above, have been examined with a stereo microscope, polarised light micrscopy and dispersion staining technique as described in the Company's SAS 04 Document that incorporates methods set out in the HSG 248. Opinions/Interpretations are not covered by UKAS Accreditation.

This Company cannot guarantee the quality or the accuracy of the sample details where supplied by a third party. The referenced sample(s) have been tested/examined and certified in accordance with the terms of the contract/order applicable and unless otherwise stated, conform fully to the standards/specifications quoted. This does not however guarantee the balance of production from which the test sample(s) have been taken from, to be of an equal quality.

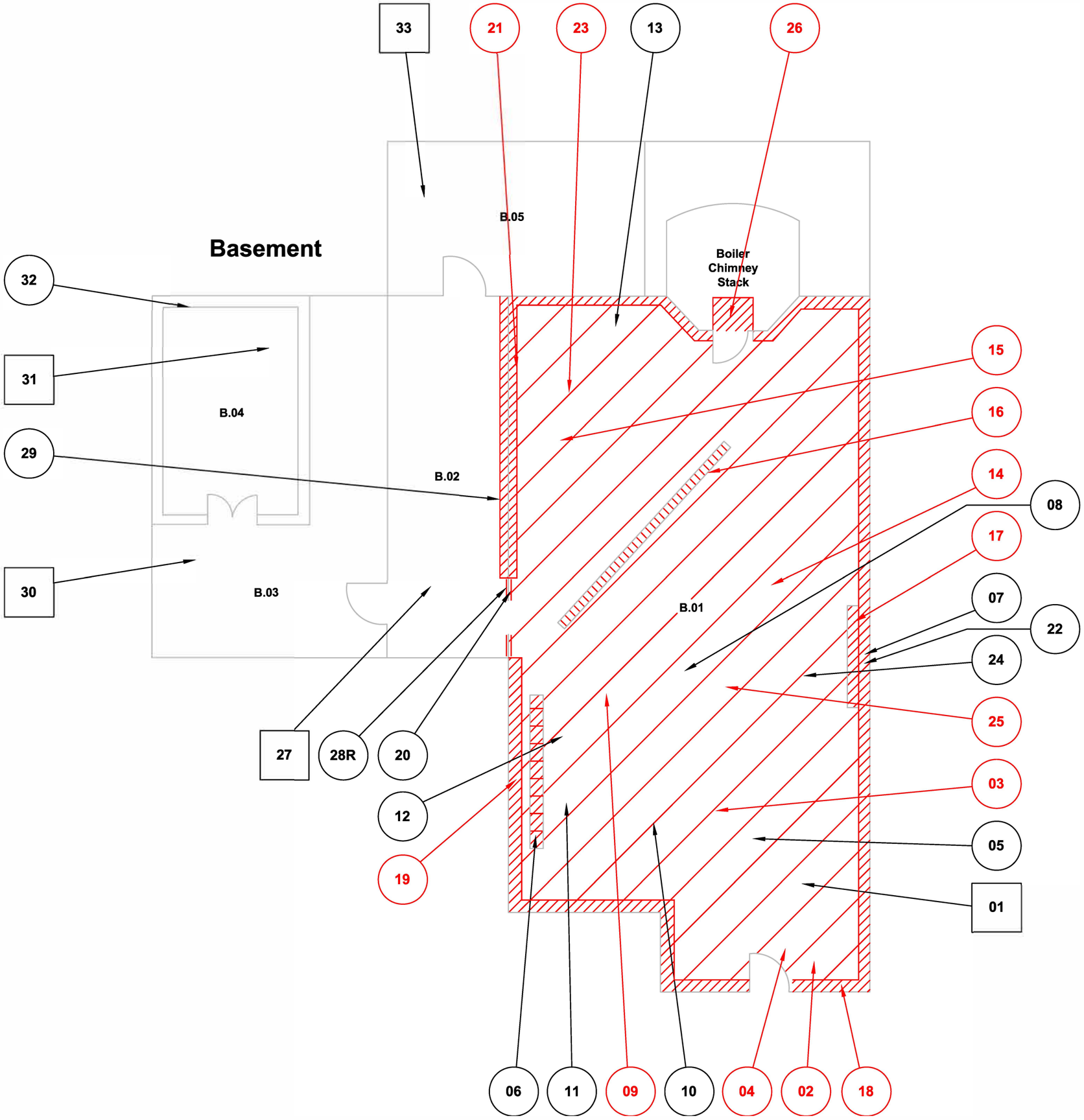
Note: The Material type associated to each sample is purely a subjective opinion of the analyst based on asbestos content and visual appearance of the sample at the time of analysis. This company cannot be held responsible for inaccuracies based on this subjective opinion which falls out side the scope of our UKAS accreditation.

Analysts Signature and Reported by:
Chris King (Analyst/ Bulk Analyst)

Analysts Signature and Reported by:
Nicola Brader (Analyst/ Bulk Analyst)

Registered in England No. 09222072

Floor Plans



A DE GROUP COMPANY

SITE DETAILS

The Horniman Museum and Gardens
100 London Road, Forest Hill
London, SE23 3PQ

EXTENT OF POSITIVE MATERIALS

OUTSIDE SCOPE OF WORKS

NO ACCESS / LIMITED / RESTRICTED ACCESS

000 ASBESTOS IDENTIFIED IN SAMPLE

000 NO ASBESTOS IDENTIFIED IN SAMPLE

IDENTIFIED AS SAMPLE

IDENTIFIED AS INSPECTION

NOT TO SCALE
THIS SITE SKETCH IS INTENDED FOR THE IDENTIFICATION OF AREAS ONLY IN RELATION TO THE ASBESTOS SURVEY
THIS DRAWING SHOULD ONLY BE READ IN COLOUR

deriskuk.com

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Dartford, Kent DA2 6NW
TEL - **01322 276760**

Email : enquiries@deriskuk.com
Web : www.deriskuk.com

CLIENT

The Horniman Museum and Gardens
100 London Road, Forest Hill
London, SE23 3PQ

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASBESTOS SURVEY REPORT FOR SURVEY NUMBER
16120

DRAWING TITLE

Main Museum Roof
Internal

SURVEY NO.		
16120	Drawn By	M.Forsyth
	Drawing Date	10/07/2017
	Surveyor 1	Warren Green
	Surveyor 2	
	Survey Date	14-15/07/2016

Air Monitoring Certificates

Ayerst Environmental Ltd, 182a High Street, Beckenham, Kent BR3 1EW
Tel: 020 8658 8050 Fax: 020 8650 9226 Email: operations@ayerstenv.com

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Air Monitoring Certificate (Cover Page)	Date: 19/07/17	Report no: LAD-A-31214
		Project no.:

Client Name and address: Derisk UK Burdett House 15-16 Buckingham Street London WC2N 6DU	Client Order no:		Ayerst arrival time on site:	13:00
	Client representative/contact	Mark Butler	Ayerst site departure time:	15:15

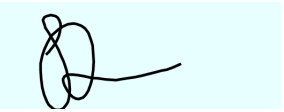
Methodology	Measurement of airborne fibre concentration was carried out in accordance with testing procedures as defined in HSE Guidance Note HSG248, L143 and UKAS accredited in-house procedures. Fibre levels less than 0.01 f/ml may be regarded as being within the HSE standard for non-occupational exposure. Opinions and interpretations expressed herein are outside the scope of UKAS Accreditations.

Site address: Horniman Museum and Gardens, 100 London Road, Forest Hill, London SE23 3PQ

Description of work: Reassurance air test to boiler room.

Removal contractor name and address:	Contractor representative - name/tel:

Equipment and calibration

Test/Equipment	Reference	Calibrations and checks	Result	Fibre counting location
Flow-meter Ref.	FM 37	Graticule Diameter Measured	100 micrometers	
Microscope Ref.	MS 30	NPL Test Band	5	Analyst Name and Signature
Stage Micrometer Ref.	SM 22	Media Blank ID and Count	BMC1032 | 1/100	LIAM DRUMM
HSE/NPL Test Slide Ref.	TS 14	Effective Filter Diameter	22.3 mm	
Wrist Computer Ref.	16	Area / Volume of enclosure	N/A	

Ayerst Environmental Ltd, 182a High Street, Beckenham, Kent BR3 1EW
Tel: 020 8658 8050 Fax: 020 8650 9226 Email: operations@ayerstenv.com

0612

AIR MONITORING CERTIFICATE (DATA SHEET)	Report no: LAD-A-31214

Sample No. See Diag.	AP Pump Ref	Type of test C R L B *	Location	Time ON -24hr Clock-	Time OFF -24hr Clock-	Duration (min)	Flow Rate Start (L/min)	Flow Rate End (L/min)	Correct Flow Rate (L/min)	Volume (Litres)	Fibres Counted	No. of Grats. Counted/ Rejected	Limit of. Quant. f/ml	Reported Conc. f/ml	Calculated result (3 dp)
FB1		Field blank	Boiler Room			10 sec						0			
01/c26 02/c31	200 201	R R	Boiler Room Boiler Room	13:28 13:28	14:04 14:04	36 36	8.2 8.2	8.2 8.2	8.2 8.2	295.2 295.2	6.5 5	200 200	0.01	<0.01	0.005 0.004

Comments:
Air test results satisfactory.

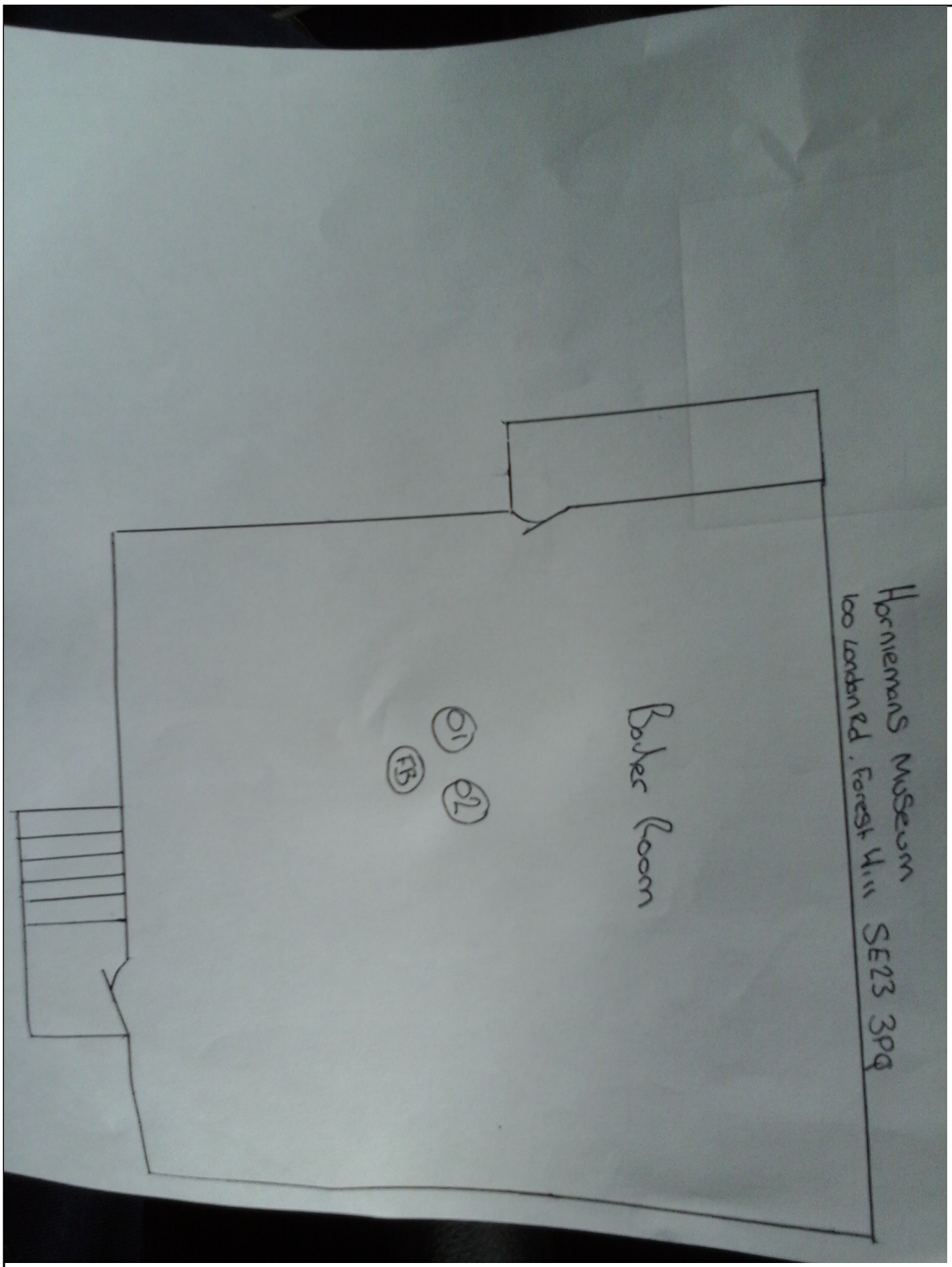
* C= Clearance, R=Reassurance, L=Leak, B=Background. If number of rejected fields exceed 10% of fields counted this should be noted.

SITE PLAN

Report no: LAD-A-31214

Site Description	Horniman Museum and Gardens, 100 London Road, Forest Hill, London SE23 3PQ

Diagram Description:
Floor plan showing air test locations



Report number: LAD-A-31214

RISK ASSESSMENT

Hazards/Activities	Hazards and Risk Description	P	S	Risk Rating	Control Measures	P	S	Risk Rating
Asbestos fibres	Exposure to airborne asbestos fibres.	4	5	Very high	Follow documented safe system of work / code of practice and Health & Safety manuals. Use protection.	1	5	Low
Electrical hazards	Electrical shocks and/or burns.	2	5	Very high	Work must not be undertaken on live electrical equipment.	1	5	Low
Fire Action Procedures	Smoke suffocation, chemicals, burns and other fire related hazards.	2	5	Very high	For each area you move to ascertain drill procedures including nearest escape routes. Also locate alarms, extinguishers, clean running water sources - where relevant: emergency showers and eyewash.	1	5	Low
Manual handling	Carrying site equipment.	2	3	Medium	Follow guidance given in the Health and Safety Guidance System document. Avoid or split loads where possible. Use safe lifting techniques and within your own limits.	1	3	Low
Slippery surfaces	Accidents associated with slips.	2	3	Medium	Ensure surfaces are free of moisture, chemicals, lichen, other biological matter, obstructions, debris and obvious dust. Suitable footwear must be worn at all areas of the site.	1	3	Low
Suitability of RPE for environment & tasks	Asbestos sampling or dust disturbance.	4	5	Very high	Use appropriate RPE, use face fitted masks.	1	5	Low
Working at height	Falls; items being dropped from heights - injuries to people below and damage to equipment.	2	5	Very high	Only suitable ladders are permitted for use for inspections at height. The maximum height for working, measured from feet to the ground should not exceed 2m. If higher access is required then proper high access equipment is required.	2	2	Low

P=probability, scored as below	S=severity of occurrence, scored as below	Risk rating=P x S
1. Only remotely probable	1. Minor	Low; 1 to 5 inclusive
2. Possible	2. Requires first aid but not reportable	Medium; 6 to 7 inclusive
3. Likely or probable	3. Reportable but not major	High; 8
4. High	4. Reportable and major	
	5. Death	

This risk assessment was carried out by:
Initials: LAD
Date: 19/07/17

Signature 

Management Information and Assessment Scoring

Asbestos Management

This survey should be used to form part of, or provide information for, inclusion into a specific management system. This report alone does not provide the client with a compliant Asbestos Management Plan. Derisk can provide further details on how to ensure compliance in either the building or within the organisation in which the Duty Holder may work (the definition of the Duty Holder for a building or organisation is given in Regulation 4 of Control of Asbestos Regulations 2012.)

The Duty Holder shall also be responsible for preparing appropriate Management Recommendations until such time as the ACMs are removed. Their responsibility extends also to preparing an Action Plan to manage those ACMs and to nominate a competent person who will hold the responsibility for that management.

Derisk UK Ltd can assist in the preparation of these assessments and advise on how to incorporate into a management system.

The recommendations given by the surveyor are based upon the condition and surface treatment recorded as part of the survey. The Duty Holder or client should ensure that the recommendations made adequately cover the future use, repair or maintenance of the ACMs.

Where remedial or removal works are required by the planned works or recommended by the survey, the Duty Holder or client shall ensure that a suitable and sufficient assessment is carried out before a competent contractor is appointed. This may involve the preparation of a project specific specification for these works. The information contained within this survey may be used as part of or in the preparation of such a specification, but this survey alone shall not be used as a specification document. In addition, the survey shall be read as a whole and shall not be reproduced in part or without the permission of the designated client.

Derisk UK Ltd can assist and advise on the specification of work and the selection, appointment and management of a competent contractor during any associated asbestos work.

Material and Priority Assessments

The following tables are extracts from HSG 264 and shows the values upon which the Material and Priority Assessments are based. The latter is used to assess the Human Exposure Potential by allocation risk values based on normal use and occupation.

Refer to the published guidance HSG227 for full description of calculation of all assessments and for the preparation of the necessary action plans and recommendations for management.

The combination of the Material and Priority Assessments provides data for the overall ACM Risk Assessment and it is this value on which the Duty Holder shall base decisions and recommendations for action, remedial work and planned project works.

As part of the management process, the Duty Holder shall ensure that all information is suitably disseminated to those persons who may be affected by the presence of ACMs during their normal work activities.

Material Assessment Parameters

Sample Variable	Score	Examples of scores (see notes for more detail)
Product type (or debris from product)	1	Asbestos-reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid or decorative finishes, asbestos cement etc).
	2	AIB, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.
	3	Thermal insulation (eg pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing.
Extent of damage/deterioration	0	Good condition: no visible damage.
	1	Low damage: a few scratches or surface marks, broken edges on boards, tiles etc.
	2	Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres.
	3	High damage or delamination of materials, spays and thermal insulation. Visible asbestos debris.
Surface treatment	0	Composite materials containing asbestos: reinforced plastic, resins, vinyl tiles.
	1	Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated) asbestos cement sheets etc.
	2	Unsealed AIB, or encapsulated lagging and sprays.
	3	Unsealed lagging and sprays.
Asbestos type	1	Chrysotile.
	2	Amphibole asbestos excluding Crocidolite.
	3	Crocidolite.
Total		

Score	Potential to release asbestos fibres
10 or more	High
7-9	Medium
5-6	Low
4 or less	Very low

Priority Assessment Parameters

Assessment factor	Score	Examples of score variables
Normal occupant activity		
Main type of activity in area	0	Rare disturbance activity (eg little used store room)
	1	Low disturbance activities (eg office type activities)
	2	Periodic disturbance (eg industrial or vehicular activity which may contact ACMs)
	3	High levels of disturbance (eg fire door with asbestos insulating board sheet in constant use)
Secondary activities for area	As above	As above
Likelihood of disturbance		
Location	0	Outdoors
	1	Large rooms or well-ventilated areas
	2	Rooms up to $100m^2$
	3	Confined spaces
Accessibility	0	Usually inaccessible or unlikely to be disturbed
	1	Occasionally likely to be disturbed
	2	Easily disturbed
	3	Routinely disturbed
Extent/amount	0	Small amounts or items (eg strings, gaskets)
	1	$10m^2$ or <10m pipe run
	2	$>10m^2$ to $=<50m^2$ or >10m to =<50m pipe run
	3	$>50m^2$ or >50m pipe run
Human exposure potential		
Number of occupants	0	None
	1	1 to 3
	2	4 to 10
	3	>10
Frequency of use in area	0	Infrequent
	1	Monthly
	2	Weekly
	3	Daily
Average time area is in use	0	<1 hour
	1	>1 to <3 hours
	2	>3 to <6 hours
	3	>6 hours
Maintenance activity		
Type of maintenance activity	0	Minor disturbance (eg possibility of contact when gaining access)
	1	Low disturbance (eg changing light bulbs in asbestos insulating board ceiling)
	2	Medium disturbance (eg lifting one or two asbestos insulating board ceiling tiles to access a valve)
	3	High levels of disturbance (eg removing a number of asbestos insulating board ceiling tiles to replace a valve or recabling)
Frequency of maintenance activity	0	ACM unlikely to be disturbed for maintenance
	1	≤1 per year
	2	>1 per year
	3	>1 per month

Additional Information Available for Download

HSG 264 – Asbestos: The Survey Guide - hsg264.pdf

HSG 248 - Asbestos: The analysts' guide for sampling, analysis and clearance procedures - hsg248.pdf

HSG 227 - A comprehensive guide to Managing Asbestos in premises - hsg227.pdf

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