

**REPORT ON THE TYPE THREE DESTRUCTIVE
SURVEY TO LOCATE AND ASCERTAIN THE NATURE
OF SUSPECTED ASBESTOS BASED MATERIALS**

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**CLARKSON OSBORN
100 Penistone Road
Sheffield
S6 3AE**



Report prepared by: Crispin Stephenson

**For and on behalf of: -
BARLOW & ASSOCIATES**

**Dated: 29th October 2009
REPORT No: ASC/SUR/CS/0096**

REPORT DETAILS

Site: **Clarkson Osborn**
100 Penistone Road
Sheffield
S6 3AE

Client: **Barlow & Associates**
7 Vernon Street
Derby
DE1 1FR

Client Contact: Mr Barry Marbrow

Survey Date: 29th October 2009

Surveyor: Crispin Stephenson

Signature: _____

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SURVEY BRIEF

To carry out a Type 3 asbestos survey to the property on Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE.

Type 3: Full Access Sampling and Identification Survey (Pre-demolition/Major Refurbishment Surveys).

This type of survey is used to locate and describe, as far as reasonably practicable, all asbestos containing materials (ACMs) in the building and may involve destructive inspection, as necessary, to gain access to all areas. A full sampling programme is undertaken to identify possible ACMs, although the condition need not be assessed, other than noting damage and debris as the survey is designed to be used as a basis for tendering the removal of ACMs from the building prior to demolition or major refurbishment works.

ASC Contracts' objectives were to:

- Investigate all agreed areas.
- Record the location, extent and product type of any identified or presumed asbestos containing materials.
- Record the accessibility and present condition of any identified or presumed asbestos containing materials.
- Produce a clear and unambiguous report to identify areas of known or suspected/presumed asbestos materials.

LIMITATIONS

In the event that it is not possible to fully investigate each individual building structure, certain assumptions may need to be made as to the likely presence of ACMs based upon more complete inspections of other areas. In addition asbestos may be concealed in walls, behind boxings or under floors etc.

No comment can be made as to the presence of ACMs in areas where no access was gained.

GENERAL INFORMATION

1 - SURVEY TECHNIQUES

The area(s) set out within the survey brief underwent inspection for suspect asbestos containing materials(s) (ACM's).

Each room/area was viewed for materials suspected to contain asbestos and representative samples taken for confirmation. Every reasonable effort was made to investigate all aspects of the building fabric. Minor destructive techniques were used for access. Materials of a similar type were representatively sampled. It was assumed that surfaces identical to a sampled location were of a similar composition.

Photographs were taken at all of the inspection locations (unless otherwise stated).

This survey/inspection was carried out in accordance with ASC Contracts documented procedures based on MDHS 100 'Surveying, sampling and assessment of asbestos containing materials'

Descriptions for locations within this report were obtained from drawings provided, site signs or site users; where no descriptions were available, suitable terms have been used for this report and accompanying drawings.

The asbestos survey/inspection records state information recorded at the time of the survey only, based on visual assessment.

2 - *SAMPLE ANALYSIS & REFERENCING*

Asbestos bulk sample analysis is conducted using polarised light and dispersion staining techniques. Dispersion staining is used to describe the colour effects produced when a particle or fibre is immersed in a liquid having a refractive index near to that of the particle or fibre when viewed under a microscope using transmitted white light. (Based on HSE Publication MDHS 77 - current version).

Formal analysis results are shown within the Asbestos Register.

Sample suffixes shown within the Asbestos Sample Records are to be interpreted as follows:

05a.....Analysed Sample

05m01.....The first sample referenced to sample 05a

05Vis.....No sample taken, visual reference only

Where samples have been visual or mastered the asbestos type will be presumed as crocidolite, unless:

- Sample analysis of similar materials within the building show a different asbestos type (mastered samples).
- Or there is reasoned argument that another type of asbestos was almost always used and will be based on professional judgement and experience.

Similarly asbestos content will be presumed as high in absence of the above.

3 - *ASBESTOS MATERIALS*

Asbestos materials have been incorporated into buildings over the last hundred years or so due essentially to the intrinsic properties of the material and the fact that it could be relatively inexpensively mined and processed. The three main asbestos types occurring naturally belong to two main fibre structures.

By far the most abundant is *Chrysotile* asbestos, commonly referred to as white asbestos. This mineral has been imported for well over one hundred years and is peculiar in that the fibres are very long and curly. This so-called serpentine structure arises due to the morphology of the crystal lattice forming concentric bands radiating out from a central core. This structure is unique amongst the asbestos fibre types.

The other crystalline forms have a significantly different crystal structure with parallel columns being apparent. This results in long, straight, fine fibres of needle like morphology. This second class of fibre, the so-called Amphiboles includes *Amosite* commonly referred to as brown asbestos, and *Crocidolite*, blue asbestos.

ASBESTOS INSULATING BOARDS.

Asbestos insulating boards gained popularity in the 50's, 60's and 70's. The boards have on occasions contained all three asbestos fibre types but by far the most common is *Amosite* (brown asbestos). Blue asbestos is rarely encountered in this type of product, probably essentially due to the higher cost of *Crocidolite* compared to the other two main types. The boards are often of relatively low density and are usually distinguished from cement boards by being less than 700 kilos per cubic metre. The asbestos fibre may be present up to a w/w concentration of around 40% with 16 to 25% being the norm. The boards have found application in the form of ceiling tiles and boards and are often suspended in a grid; boards are used for partitioning, ceilings and structural steel work protection when cut to size.

Boards were available manufactured to a variety of thickness depending on the application. The asbestos fibre is contained within a cementitious matrix often containing other mineral fillers.

Following only minimal abrasion or mechanical working, high atmospheric fibre concentrations may be generated and if the boards are energetically worked then serious contamination may result.

The changes to the Asbestos Licensing Regulations and the Control of Asbestos at Work Regulations on the 1st February 1999 have resulted in work with asbestos insulation board requiring a license.

All the requirements under the Licensing Regulations and the Control of Asbestos at Work Regulations now apply to work with asbestos insulating board.

SPRAYED COATINGS AND LAGGING (THERMAL INSULATION).

Sprayed asbestos in buildings contains mainly *Amosite*, the use of *Crocidolite* and *Chrysotile* is less common. Sprayed coatings were applied in order to provide anti-condensation and acoustic control in buildings and for fire protection of structural steel.

Sprayed coatings are very friable and are likely to release fibres, especially if disturbed during maintenance, repair or building works. Sprayed coatings usually have an 85% plus asbestos fibre content, it is possible that the binding medium may degrade with age resulting in fibre release.

Asbestos lagging is a term which covers a wide range of materials including pipe sections, slabs, rope, tape, corrugated asbestos paper, quilts, felts, blankets and plastered cement. The asbestos fibre content of lagging depends on the materials type. Asbestos quilts, blankets and mattresses may contain approximately 100% asbestos. Preformed thermal insulation materials made of magnesia and calcium silicate were reinforced with approximately 15% *Amosite* or a mixture of *Amosite* and *Chrysotile*. Older preformed pipe insulation may also contain *Crocidolite*. The likelihood of fibre release from lagging depends on its composition, friability and state of repair, but it is particularly susceptible to disturbance during maintenance or building works or from water leaks from pipework.

ASBESTOS CEMENT PRODUCTS.

Asbestos cement products generally contain 10-15% asbestos fibre bound in a matrix of Portland cement or autoclaved calcium silicate. All three main asbestos fibre types have been used in the manufacture of asbestos cement but the majority contains *Chrysotile* on its own. Corrugated sheets are largely used as roofing and wall cladding and have a density between 1200 kg/m³ to 1600 kg/m³. The asbestos fibres in asbestos cement are firmly bound within the cement matrix and will only be released if the material is mechanically damaged or deterioration with age.

ASBESTOS ROPE.

Asbestos rope has been used mainly as pipework thermal insulation and stemming around pipework penetrations. The asbestos content of rope material approaches 100% and all three main types of asbestos has been used in its manufacture.

MASTIC, SEALANTS, PUTTIES AND ADHESIVES.

Small quantities of asbestos fibre have been included in certain mastics and sealants in order to impart anti-slumping characteristics and to improve coverage and anti-cracking properties. The only danger of fibre release is during sanding or removal of the materials.

FLOORING MATERIALS.

Small quantities of asbestos fibre have been added to the matrix of certain PVC and thermoplastic floor tiles and sheet materials. Certain floor tiles have an asbestos based paper backing.

The asbestos fibres within the floor material may be released as the material wears. The rate of release is expected to be very low except under conditions of extreme heavy wear.

TEXTURED COATINGS AND PAINTS.

Small amounts of asbestos fibres may be found in textured coatings or paint e.g. "Artex". The supply and application of these materials is prohibited by the Asbestos (Prohibitions) (Amendment) Regulations 1988.

It is imperative that these materials are not sanded or scraped off dry. Removal should be under controlled conditions.

BUILDING ACCESSIBILITY

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE			
Building Ref	Floor	Room	Accessed	Comments
Tap Dept	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Tap Dept	First	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Maintenance	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Heat T' ment	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Offices	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Offices	First	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Soft Cell	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Mess Areas	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Office Block	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Office Block	First	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Warehouse	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Front Block	Basement	All Areas	No	Flooded at time of survey. Presumed asbestos containing materials present.
Front Block	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present

BUILDING ACCESSIBILITY

Building Ref	Floor	Room	Accessed	Comments
Front Block	First	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Front Block	Second	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Front Block	Third	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Front Block	Roof	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Front Block	External	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Sub-station	External	All Areas	No	Visible sight of suspected AIB ceiling panels ~ 25 sq.m. Outwith scope of survey

ASBESTOS REGISTER

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE			
Sample No.	Location	Building Material	Asbestos Type	Action Priority
MB/01/01	Front Block - Ground Floor Area 01 – Electrical Riser	AC Lining Panels ~ 3 sqm	Chrysotile	N/A
MB/01/02	Front Block – Ground Floor Area 01/ 02 – Floor Tiles	Thermoplastic Flooring ~ 60sqm	Chrysotile	N/A
MB/03/01	Front Block – Ground Floor Area 03 – Redundant Vessels	Rope Seals to Vessels x 4	Chrysotile	N/A
As MR/01/01	Front Block – First Floor Gents WC – Sanitary Ware	Toilet Sets x 4	Amosite	N/A
MB/06/01	Front Block – First Floor Area 06 & Third Floor Area 09 - Floor Tiles	Thermoplastic Flooring ~ 80 / 200 sqm	Chrysotile	N/A
MB/07/01	Front Block – First / Second / Third Floor Areas 05/07/09 – Fire Exit x 6	AIB Door Surrounds ~ 6sqm	Amosite / Chrysotile	N/A
MB/09/01	Front Block – Third Floor – Ceiling Panels and Extensive Floor Debris ~ 300 sqm	AIB Boarding and Extensive Debris to Floor Areas	Amosite / Chrysotile	N/A
MB/09/02	Front Block – Third Floor – Ceiling Panels and Extensive Floor Debris ~ 300 sqm	AIB Boarding and Extensive Debris to Floor Areas	Amosite / Chrysotile	N/A
MB/12/02	Roof Area – Tank Room Door Panel ~ 3 sqm (Damaged)	AC Panel to Door Set ~ 3 sqm	Chrysotile	N/A
MB/13/01 & 02	Covered Entrances – Area 13 – Pipework Insulation ~ 30 linn	AI to Service Pipework at High Level	Crocidolite/Amosite/Chrysotile	N/A
N/A	Tap Department – Area 10 – Loose Gasket on Floor	Loose Gasket – Labelled as asbestos	Chrysotile	N/A
TD/11/01 & 02	Tap Department – Area 11 Machine Room – Roof Lining and Wall Panels ~ 400 sqm	Asbestos Coating to the Roof/Wall Lining Panels ~ 5mm in Thickness	Chrysotile	N/A

MA/01/01	Maintenance Dept – Area 01 - Internal / External Wall Panels ~ 200 sqm	AC Wall Sheeting	Chrysotile	N/A
MR/01/01	Mess Facility – Area 01 Male Toilets – Sanitary Ware x 7	Toilet Sets x 7	Amosite	N/A
OFG/05/02	Machine Shop Offices – Area 05 Ground Floor Office – Small Floor Tiles (Blue)	Thermoplastic Flooring ~ 30sqm	Chrysotile	N/A
OFG/07/01	Machine Shop Offices – Area 07 Process – High Level Wall Panels ~ 100 sqm	AIB Wall Panels at High Level	Amosite / Chrysotile	N/A
As OFG/07/01	Heat Treatment Area – Area 01 Process – High Level Wall Panels ~ 40 sqm. Presumed as	AIB Wall Panels at High Level	Amosite / Chrysotile	N/A
As MA/01/01	Main Soft Cell Machine Shop to Rear of Site – AC Roof/Wall Panels with AC Rainwater Goods ~ 5000 sqm	AC Wall / Roof Sheeting and RWG	Chrysotile	N/A
Assumed	Office Block – First Floor Ladies WC	Acoustic Sink Pad x 1	Chrysotile	N/A
OG/32/01	Office Block Plant Room – Pipework Gasket	Compressed asbestos fibre	Chrysotile	N/A

DISCUSSION

All asbestos containing materials must be removed before any redevelopment/demolition works commence.

ASBESTOS THERMAL INSULATION

Sample Location: External Areas – Covered Entrances – Areas 13 x 2

Samples taken from the above locations (two no.) have been found to contain Crocidolite/Amosite/Chrysotile.

The insulation to the pipework is in a poor condition in both areas with water ingress leading to damage and the possibility of floor debris arising.

Prior to any demolition works all Asbestos Insulation (AI) should be removed by a licensed asbestos removal contractor under fully controlled conditions in accordance with the *Control of Asbestos Regulations 2006*.

ASBESTOS INSULATION BOARDING

Sample Location: Front Block – First/Second/Third Floors – Fire Exit Door Surrounds x 6

Samples taken from the above reference locations were found to contain Amosite / Chrysotile asbestos.

The materials are on the whole in good condition having received only minor damage at time of survey.

Prior to any demolition works all Asbestos Insulation Boarding (AIB) should be removed by a licensed asbestos removal contractor under fully controlled conditions in accordance with the *Control of Asbestos Regulations 2006*.

Sample Location: Front Block – Third Floors – Former Canteen & Kitchen Areas – Ceilings and associated debris

Samples taken from the above reference locations were found to contain Amosite / Chrysotile asbestos.

The materials are on the whole in very poor condition having been removed in an uncontrolled manner giving rise to extensive floor debris and contamination. Access to this floor should be restricted until such time as an asbestos abatement process is implemented.

Prior to any demolition works all Asbestos Insulation Boarding (AIB) should be removed by a licensed asbestos removal contractor under fully controlled conditions in accordance with the *Control of Asbestos Regulations 2006*.

Sample Location: Machine Shop Offices & Heat Treatment Area – High Level Wall Boards and Roofing Panels

Samples taken from the above reference locations were found to contain Amosite / Chrysotile asbestos.

The materials are on the whole in good condition having received only minor damage at time of survey. Some element of floor debris exists within the Process Area of the Machine Shop Offices however access is very limited.

Prior to any demolition works all Asbestos Insulation Boarding (AIB) should be removed by a licensed asbestos removal contractor under fully controlled conditions in accordance with the *Control of Asbestos Regulations 2006*.

ASBESTOS COATINGS

Sample Location: Tap Department – Ground Floor – Machine Room – Wall & Roof Lining Panels

Samples taken from the above reference locations were found to contain Chrysotile asbestos.

The materials are on the whole in good condition having received only minor damage at time of survey. The coating is approximately 5mm in thickness and is unsealed. This is a factory applied coating and is in place as an insulant to protect against cold and subsequent condensation. In light of this the panels are classed in the surveyor's opinion as insulation boarding and hence their removal is a licensable activity,

Prior to any demolition works all Asbestos Insulation Boarding (AIB) should be removed by a licensed asbestos removal contractor under fully controlled conditions in accordance with the *Control of Asbestos Regulations 2006*.

ASBESTOS CEMENT PRODUCTS

Sample Location: Front Block – Ground Floor Area 01 – Electrical Riser

A sample taken from the above location was found to contain Chrysotile (white asbestos).

The *Control of Asbestos Regulations 2006* does not require the use of a licensed asbestos removal contractor for the removal of asbestos cement products. However they do require asbestos cement to be disposed of as asbestos waste and for the removal to be carried out under controlled conditions, due to the possibility of airborne fibre release.

Those undertaking the removal works should produce a written method statement and risk assessment prior to undertaking the work. It may therefore be prudent to employ a licensed contractor, as they have the relevant experience and equipment for works of this type.

Sample Location: Front Block – Roof Area – Tank Room Door Set

A sample taken from the above location was found to contain Chrysotile (white asbestos). The panels are damaged and asbestos containing floor debris is evident.

The *Control of Asbestos Regulations 2006* does not require the use of a licensed asbestos removal contractor for the removal of asbestos cement products. However they do require asbestos cement to be disposed of as asbestos waste and for the removal to be carried out under controlled conditions, due to the possibility of airborne fibre release.

Those undertaking the removal works should produce a written method statement and risk assessment prior to undertaking the work. It may therefore be prudent to employ a licensed contractor, as they have the relevant experience and equipment for works of this type.

Sample Location: Maintenance Area and Soft Cell Main Structure to Rear – Roof / Wall Panels and RWG

A sample taken from the above location was found to contain Chrysotile (white asbestos).

The *Control of Asbestos Regulations 2006* does not require the use of a licensed asbestos removal contractor for the removal of asbestos cement products. However they do require asbestos cement to be disposed of as asbestos waste and for the removal to be carried out under controlled conditions, due to the possibility of airborne fibre release.

Those undertaking the removal works should produce a written method statement and risk assessment prior to undertaking the work. It may therefore be prudent to employ a licensed contractor, as they have the relevant experience and equipment for works of this type.

THERMOPLASTIC MOULDED PRODUCTS

Sample Location: Mess Facility – WC - Toilet Area 01/ Front Block 1st Floor Area 04 – Gents WC

The sample of the bonded thermoplastic materials used as sanitary ware (cisterns and seats) within the ground floor and first floor toilet areas has been found to contain Amosite (brown asbestos).

The *Control of Asbestos Regulations 2006* does not require the use of a licensed asbestos removal contractor for the removal of asbestos containing thermoplastic products. However they do require them to be disposed of as asbestos waste and for the removal to be carried out under controlled conditions, due to the possibility of airborne fibre release.

Those undertaking the removal works should produce a written method statement and risk assessment prior to undertaking the work. It may therefore be prudent to employ a licensed contractor, as they have the relevant experience and equipment for works of this type.

Sample Location: Machine Shop Offices Area 05 / Front Block Ground Floor Area 01 & 02 / Front Block First Floor Areas 06 / Front Block Third Floor Area 09 – Flooring Materials

The sample of the bonded thermoplastic materials used as flooring (tiles and adhesive) within the above areas has been found to contain Chrysotile (white asbestos).

The *Control of Asbestos Regulations 2006* does not require the use of a licensed asbestos removal contractor for the removal of asbestos containing thermoplastic products. However they do require them to be disposed of as asbestos waste and for the removal to be carried out under controlled conditions, due to the possibility of airborne fibre release.

Those undertaking the removal works should produce a written method statement and risk assessment prior to undertaking the work. It may therefore be prudent to employ a licensed contractor, as they have the relevant experience and equipment for works of this type.

Sample Location: Office Block – Ladies WC – Acoustic Sink Pad

The acoustic sink pad within the above area has been assumed to contain Chrysotile (white asbestos).

The *Control of Asbestos Regulations 2006* does not require the use of a licensed asbestos removal contractor for the removal of asbestos containing thermoplastic products. However they do require them to be disposed of as asbestos waste and for the removal to be carried out under controlled conditions, due to the possibility of airborne fibre release.

Those undertaking the removal works should produce a written method statement and risk assessment prior to undertaking the work. It may therefore be prudent to employ a licensed contractor, as they have the relevant experience and equipment for works of this type.

WOVEN ASBESTOS MATERIALS

Sample Location: Front Block – Ground Floor Area 3 – Stored Redundant Vessels x 4

The sample of the rope seals to the top of the redundant vessels within the ground floor area has been found to contain Chrysotile (white asbestos).

The *Control of Asbestos Regulations 2006* does not require the use of a licensed asbestos removal contractor for the removal of asbestos containing woven products. However they do require them to be disposed of as asbestos waste and for the removal to be carried out under controlled conditions, due to the possibility of airborne fibre release.

Those undertaking the removal works should produce a written method statement and risk assessment prior to undertaking the work. It may therefore be prudent to employ a licensed contractor, as they have the relevant experience and equipment for works of this type.

COMPRESSED ASBESTOS FIBRE (CAF)

Sample Location: Office Block – Plant Room – Pipework gaskets, Tap Department Storage Area – Loose Gaskets

The sample of the CAF gaskets within the above areas have been found to contain Chrysotile (white asbestos).

The *Control of Asbestos Regulations 2006* does not require the use of a licensed asbestos removal contractor for the removal of asbestos containing woven products. However they do require them to be disposed of as asbestos waste and for the removal to be carried out under controlled conditions, due to the possibility of airborne fibre release.

Those undertaking the removal works should produce a written method statement and risk assessment prior to undertaking the work. It may therefore be prudent to employ a licensed contractor, as they have the relevant experience and equipment for works of this type.

LIMITED OR NON-ACCESSED AREAS

Front Block – Basement

At the time of the survey the basement area is flooded due to to vandalism of the service pipework within the areas above. Prior to the demolition works commencing ASC Contracts will revisit site when the area has been dewatered and conclude the survey works. Until such time it is presumed that asbestos materials are present and that access should be restricted.

A general note is included with regards the following items: -

Electrical switchgear

Asbestos based anti-flash materials may be present within the electrical switchgear on the site. Due to the access restrictions imposed by the live services a presumption that asbestos is present must be made about all the switchgear on the site.

Ground Contamination

Asbestos is often found within sub-soil layers on previously used / developed site. The presence of not of this sort of materials of contamination is beyond the scope of this survey.

Type 3 Limitations

At the time of survey the premises were occupied by staff and visitors alike. To this end a Type 3 survey has been carried out however when completely vacated a further visit from ASC Contracts will be carried out. Certain actions such as the opening of external wall voids could not be carried out due to the need for security and retention of the buildings. These will be completed at a later date.

SURVEY RESERVATIONS

This report is based upon a full intrusive inspection of an unfamiliar site.

During the course of the survey all reasonable efforts were made to identify the physical presence of materials containing asbestos within the areas of the building.

It is known that asbestos materials are frequently concealed within the fabric of buildings or within sealed building voids so therefore it is not possible to regard the findings of any survey as being definitive. It shall always remain a possibility that further asbestos containing materials may be found. For reasons set out in this report, ASC Contracts cannot give an assurance that all asbestos materials have been found.

Asbestos may be under or hidden from view by other materials which have been used for over-cladding. In-filling, alteration and refurbishment work which, has taken place in the past, may also hide asbestos containing materials. Attempts have been made to access all such areas through the adoption of destructive techniques; however the requirement to maintain structural integrity would limit their implementation.

Some installations may not be inspected internally for safety reasons (e.g. lift shaft, live electrical switchgear etc) and should be suspected to contain asbestos. Where a safe system of work has been devised for their access such installations will have been inspected and documented accordingly.

Our surveyors will only access heights not exceeding 2m unless suitable access equipment is available or supplied. Access to roof areas and ceiling voids will be, on occasions limited due to excessive access height.

Access may not have been gained to several areas of the site; any such areas have been documented within this report.

Where asbestos containing materials have been presumed/detected, it is possible that past degradation (or future deterioration) may contaminate localised areas. The presence or extent of any such contamination cannot be visually identified or assessed without the use of airborne fibre monitoring and swab sampling techniques etc being employed, unless visible debris was present at the time of undertaking the survey. This exercise would require a separate instruction/visit and would be the subject to further charges.

Floor tiles (or similar material) may include a bitumastic adhesive. It is known that some proprietary brands of bitumen have an asbestos content and this will be included as an integral part of the bulk sample or presumptive analysis unless otherwise stated.

Textured coatings may contain small quantities of asbestos in a non-homogeneous mixture, making detection occasionally impossible. Due to the application techniques and heterogeneous nature of some of the materials, sample results may be unrepresentative of the whole. Scanning Electron Microscopy can be carried out at extra cost to provide a greater degree of accuracy. This will only be carried out at the client's request and would require a separate instruction/visit.

We recommend that samples be taken of suspect materials, which may be uncovered within any areas, which were not included in this survey. No air monitoring was carried out whilst the survey was undertaken. Care was taken not to cause disturbance of fibre or contamination of clean surfaces. Use may have been made of

both asbestos and non-asbestos materials in close proximity to one another. Caution must therefore be adopted when disturbing areas of mixed materials and all should be treated as asbestos.

Any diagrams in the report are not to scale and are illustrative only to indicate approximate locations. The descriptions used are for location identification purposes.

All the recommendations described in this report are standardised and based upon material and priority assessments for each individual inspection. The assessments take into account the type, location and condition to generate the associated risk evaluation. While proposed refurbishment or demolition may negate the requirement to prioritise risk evaluations it is policy to undertake this should works be delayed and asbestos containing materials remain in-situ Recommendations should still be reviewed for suitability for each circumstance, however, statutory authorities or others bodies, may require amendments based upon local knowledge, change in legislation, change in use or other criteria.

Future refurbishment or demolition works may disturb or damage asbestos containing materials. Such materials should be suitably treated and some may require removal by a Licensed Asbestos Removal Contractor. The report should be used as a basis for tendering the removal of ACM's from the building prior to demolition or major refurbishment works, or, should such works be delayed as an initial asbestos register to which any later discoveries should be added and for the programming of an asbestos management plan.

ASC Contracts cannot accept liability for loss, injury, damage or penalty due to errors or omissions within this report.

ASC Contracts cannot accept liability for cosmetic or structural damage incurred during sampling and surveying. By its very nature, an asbestos survey often results in a reasonable degree of damage to components during inspection to allow for subsequent laboratory identification.


Entry into confined spaces will not be permitted until the building owner/duty holder has been informed and the area certified as safe.

Although our surveyors (if required) complete the priority assessment with care and diligence, the ultimate responsibility for the accuracy of the priority assessment lies with the client.

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	Ground Floor
Room/Area:	Office Area 01 – Electrical Riser

Component:	Cement Boarding	Sample No:	MB/01/01
Sampled By:	C Stephenson	Asbestos:	CHRYBOTILE

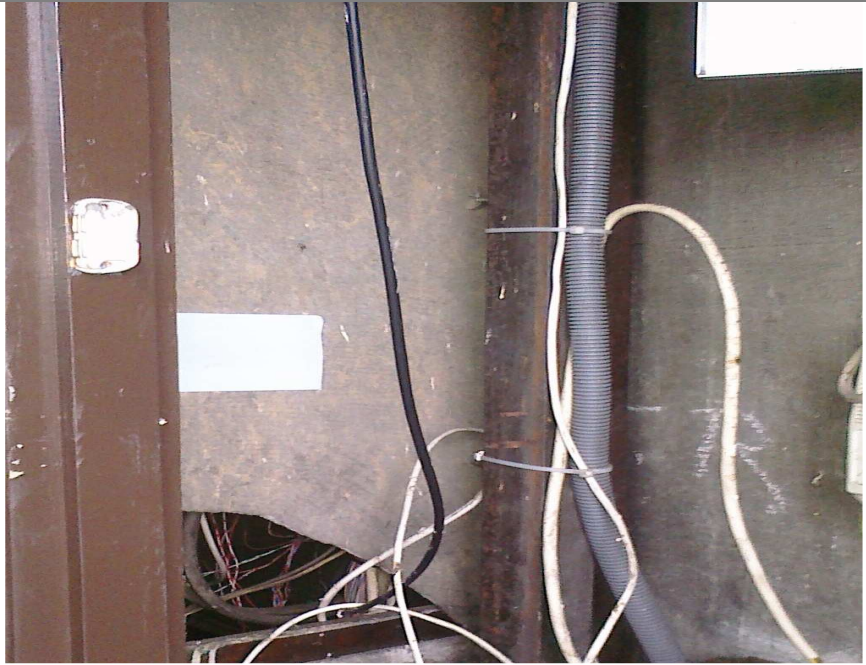
Condition:	Fair		
Friability:	Low		
Surface Treatment:	None		
Position:	Internal		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	3 sq.m		
Photo Number:	001	Action Priority:	N/A

Comments:	Asbestos Cement Panels to the Electrical Riser within the Office Area 01. NB This extend to the first floor level with lining panels present to the full height of the riser shaft ~ 4 metres
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	Ground Floor
Room/Area:	Office Area 01 – Electrical Riser

Component:	Cement Boarding	Sample No:	MB/01/01
Sampled By:	C Stephenson	Asbestos:	CHRYSTILE


Condition:	Fair		
Friability:	Low		
Surface Treatment:	None		
Position:	Internal		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	3 sq.m		
Photo Number:	003	Action Priority:	N/A

Comments:	Asbestos Cement Panels to the Electrical Riser within the Office Area 01. NB This extend to the first floor level with lining panels present to the full height of the riser shaft ~ 4 metres
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	Ground Floor
Room/Area:	Office Area 01 – Floor Tiles

Component:	Thermoplastic	Sample No:	MB/01/02
Sampled By:	C Stephenson	Asbestos:	CHRYBOTILE


Condition:	Fair		
Friability:	Low		
Surface Treatment:	None		
Position:	Internal		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	20 sq.m		
Photo Number:	003	Action Priority:	N/A

Comments:	Asbestos Containing Thermoplastic Floor Tiles within the Office Area 01.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	Ground Floor
Room/Area:	Area 03 – Redundant Vessels

Component:	Woven Rope Seals	Sample No:	MB/01/03
Sampled By:	C Stephenson	Asbestos:	Chrysotile


Condition:	Fair		
Friability:	High		
Surface Treatment:	None		
Position:	Internal		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	15 lin.m		
Photo Number:	004	Action Priority:	N/A

Comments:	Asbestos containing woven products to the edge of the redundant vessels stored at ground floor level
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	First Floor
Room/Area:	Office Area 04 –Gents WC

Component:	Thermoplastic	Sample No:	As MR/01/01
Sampled By:	C Stephenson	Asbestos:	AMOSITE


Condition:	Good		
Friability:	Low		
Surface Treatment:	None		
Position:	Internal		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	4 no. Sets		
Photo Number:	005	Action Priority:	N/A

Comments:	Asbestos containing thermoplastic sanitary ware ~ 4 sets
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	First Floor
Room/Area:	Office Area 06 – Floor Tiles

Component:	Thermoplastic	Sample No:	MB/06/01
Sampled By:	C Stephenson	Asbestos:	CHRYBOTILE


Condition:	Fair		
Friability:	Low		
Surface Treatment:	None		
Position:	Internal		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	80 sq.m		
Photo Number:	006	Action Priority:	N/A

Comments:	Asbestos Containing Thermoplastic Floor Tiles within the Office Area 06.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	First / Second / Third Floors
Room/Area:	Fire Exit Areas to Stairs x 6

Component:	AIB Panels	Sample No:	MB/07/01
Sampled By:	C Stephenson	Asbestos:	AMOSITE & CHRYSOTILE


Condition:	Fair		
Friability:	Low		
Surface Treatment:	None		
Position:	Internal		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	6 sq.m per area		
Photo Number:	007	Action Priority:	N/A

Comments:	Asbestos Insulation Boarding fire protection to doorway surrounds. 6 no. sets of doors over three floors.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	Third Floor
Room/Area:	Office Area 09 – Ceiling Boarding & Debris

Component:	AIB Panels & Debris	Sample No:	MB/09/01 & 02
Sampled By:	C Stephenson	Asbestos:	AMOSITE & CHRYSOTILE


Condition:	Very Poor		
Friability:	High		
Surface Treatment:	None		
Position:	Internal		
Accessibility:	RESTRICT		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	300 sq.m		
Photo Number:	008	Action Priority:	N/A

Comments:	AIB Ceilings badly damaged / destroyed. Debris across the main areas of the floor. Restrict access until abatement carried out.
Recommendation:	Remove immediately

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	Roof Area
Room/Area:	Area 12 Tank Room – Door Set Panel

Component:	Asbestos Cement	Sample No:	MB/12/02
Sampled By:	C Stephenson	Asbestos:	CHRYBOTILE


Condition:	Poor		
Friability:	Low		
Surface Treatment:	None		
Position:	External		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	3 sq.m		
Photo Number:	009	Action Priority:	N/A

Comments:	Asbestos Cement based panel to door set. Damaged with floor debris evident.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	External
Room/Area:	Area 13 – Covered Entrances – AI to Service Pipework

Component:	Insulation	Sample No:	MB/13/01 & 02
Sampled By:	C Stephenson	Asbestos:	AMOSITE / CROCIDOLITE / CHRYBOTILE


Condition:	Fair		
Friability:	Low		
Surface Treatment:	Canvas Wrap		
Position:	External		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	30 lin.m		
Photo Number:	010	Action Priority:	N/A

Comments:	Asbestos Insulation to small bore service pipework at high level. Damage in some localised areas due to water ingress.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Front Block
Floor:	External
Room/Area:	Area 13 – Covered Entrances – AI to Service Pipework

Component:	Insulation	Sample No:	MB/13/01 & 02
Sampled By:	C Stephenson	Asbestos:	AMOSITE / CROCIDOLITE / CHRYBOTILE

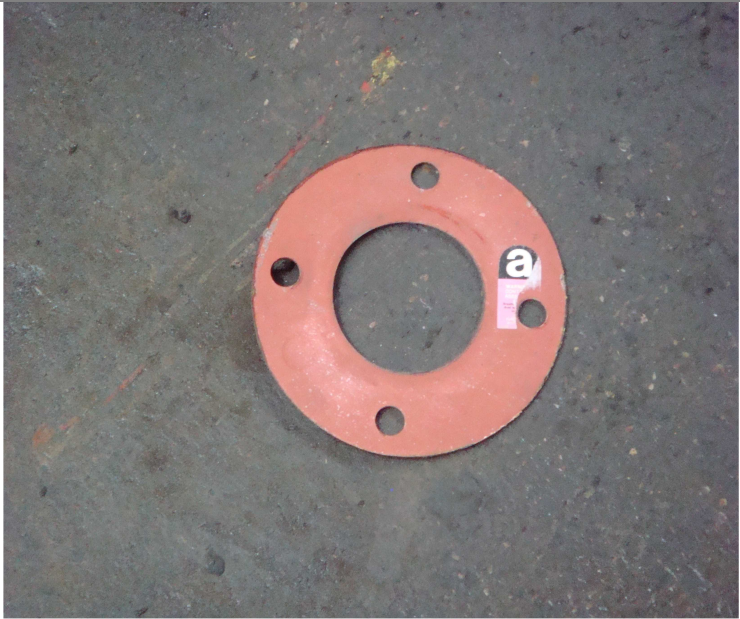
Condition:	Fair		
Friability:	Low		
Surface Treatment:	Canvas Wrap		
Position:	External		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	30 lin.m		
Photo Number:	011	Action Priority:	N/A

Comments:	Asbestos Insulation to small bore service pipework at high level. Damage in some localised areas due to water ingress.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Tap Department
Floor:	Ground
Room/Area:	Area 10 – Storage – Loose CAF Gasket

Component:	CAF Gasket	Sample No:	N/A
Sampled By:	C Stephenson	Asbestos:	CHRYBOTILE


Condition:	Fair		
Friability:	Low		
Surface Treatment:	N/A		
Position:	Internal		
Accessibility:	High		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	10 no.		
Photo Number:	012	Action Priority:	N/A

Comments:	CAF Gaskets found throughout the area. Discarded from other processes.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Tap Department
Floor:	Ground
Room/Area:	Area 11 – Machine Room – Roof & Wall Lining Panels

Component:	Insulation Board	Sample No:	TD/11/01 & 02
Sampled By:	C Stephenson	Asbestos:	CHRYBOTILE


Condition:	Fair		
Friability:	High		
Surface Treatment:	None		
Position:	Internal		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	400 sq.m		
Photo Number:	013	Action Priority:	N/A

Comments:	Asbestos coated insulation boarding to the roof and side walls of the machine shop structure. Coating is ~ 5mm in thickness and unsealed.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Maintenance Department
Floor:	Ground
Room/Area:	Area 01 – Internal / External Wall Panels

Component:	Asbestos Cement	Sample No:	MA/01/01
Sampled By:	C Stephenson	Asbestos:	CHRYBOTILE


Condition:	Fair	
Friability:	Low	
Surface Treatment:	N/A	
Position:	Internal / External	
Accessibility:	High	
Exposure:	Maintenance	
Room/Area Size:	N/A	
Approx. Amount of Material at Location:	400 sq.m.	
Photo Number:	014	

Comments:	Asbestos Cement panels forming internal partition walls and external wall cladding
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Mess Facility
Floor:	Ground
Room/Area:	Area 01 – Gents Toilets

Component:	Thermoplastic	Sample No:	MR/01/01
Sampled By:	C Stephenson	Asbestos:	AMOSITE


Condition:	Fair		
Friability:	Low		
Surface Treatment:	N/A		
Position:	Internal		
Accessibility:	High		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	7 no. sets		
Photo Number:	015	Action Priority:	N/A

Comments:	Asbestos containing thermoplastic sanitary ware – 7 no. sets.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Soft Cell Machine Shop Offices
Floor:	Ground
Room/Area:	Area 05 – Office – Small Blue Floor Tiles

Component:	Thermoplastic Flooring	Sample No:	OFG/05/02
Sampled By:	C Stephenson	Asbestos:	CHRYBOTILE


Condition:	Fair		
Friability:	Low		
Surface Treatment:	N/A		
Position:	Internal		
Accessibility:	High		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	30 sq.m		
Photo Number:	016	Action Priority:	N/A

Comments:	Thermoplastic floor tile to the office area. Small sized tiles (blue).
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Soft Cell Machine Shop Offices
Floor:	Ground
Room/Area:	Area 07 – Process – High Level Wall Panels

Component:	Insulation Boarding	Sample No:	OFG/07/01
Sampled By:	C Stephenson	Asbestos:	AMOSITE & CHRYSOTILE


Condition:	Fair (minor damage)		
Friability:	Low		
Surface Treatment:	N/A		
Position:	Internal		
Accessibility:	High		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	100 sq.m		
Photo Number:	017	Action Priority:	N/A

Comments:	Insulation boarding at high level forming wall partitions. Some damage with floor debris and debris on adjacent wall ledges evident.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Heat Treatment Area
Floor:	Ground
Room/Area:	Area 01 – Process – High Level Wall Panels

Component:	Insulation Boarding	Sample No:	As OFG/07/01
Sampled By:	C Stephenson	Asbestos:	AMOSITE & CHRYSOTILE


Condition:	Fair (minor damage)		
Friability:	Low		
Surface Treatment:	N/A		
Position:	Internal		
Accessibility:	High		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	40 sq.m		
Photo Number:	018	Action Priority:	N/A

Comments:	Insulation boarding at high level forming wall partitions. Some damage with floor debris and debris on adjacent wall ledges evident.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Main Site Buildings to Rear
Floor:	External
Room/Area:	External Areas – Roof / Wall Panels and Rain Water Goods

Component:	Insulation Boarding	Sample No:	As MA/01/01
Sampled By:	C Stephenson	Asbestos:	CHRYBOTILE


Condition:	Fair (minor damage)		
Friability:	Low		
Surface Treatment:	N/A		
Position:	External		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	5000 sq.m		
Photo Number:	019	Action Priority:	N/A

Comments:	Asbestos cement materials forming roof / all panels and rain water goods throughout the site.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Office Block
Floor:	First
Room/Area:	Area 17 – Ladies WC – Acoustic Sink Pad

Component:	Thermoplastic	Sample No:	N/A
Sampled By:	C Stephenson	Asbestos:	CHRYSTILE


Condition:	Fair		
Friability:	Low		
Surface Treatment:	N/A		
Position:	Internal		
Accessibility:	High		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	1 no.		
Photo Number:	020	Action Priority:	N/A

Comments:	Bitumen acoustic sink pad.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	Clarkson Osborn, 100 Penistone Road, Sheffield S6 3AE
Building:	Office Block
Floor:	Ground
Room/Area:	Area 32 – Plant Room – Pipework Gasket

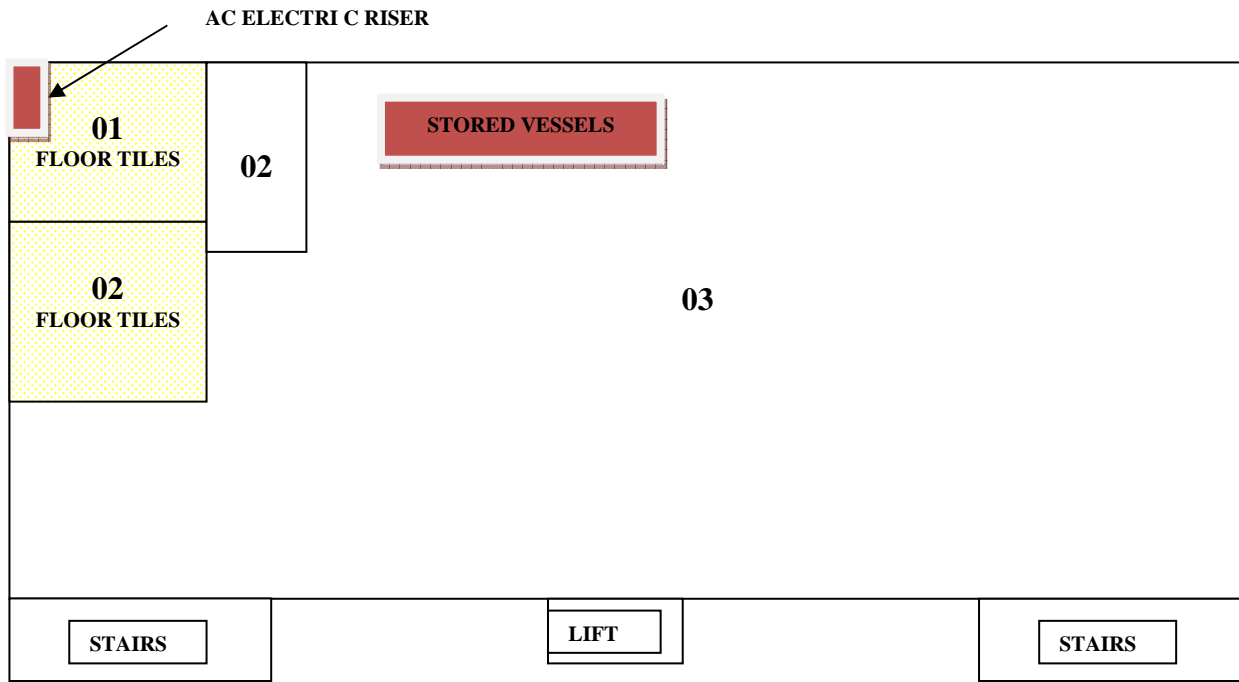
Component:	CAF Gasket	Sample No:	OG/32/02
Sampled By:	C Stephenson	Asbestos:	CHRYBOTILE

Condition:	Fair		
Friability:	Low		
Surface Treatment:	N/A		
Position:	Internal		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	10 no.		
Photo Number:	021	Action Priority:	N/A

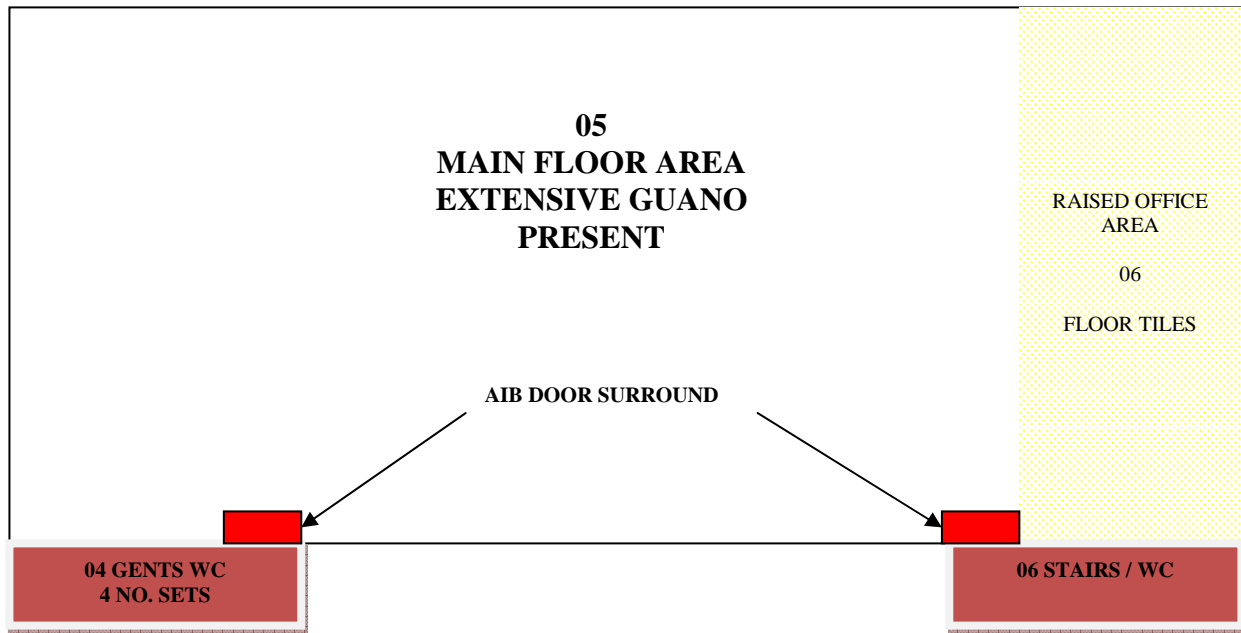
Comments:	CAF Gaskets to pipework within plant room.
Recommendation:	Remove prior to demolition / refurbishment

ANNOTATED SITE DRAWINGS

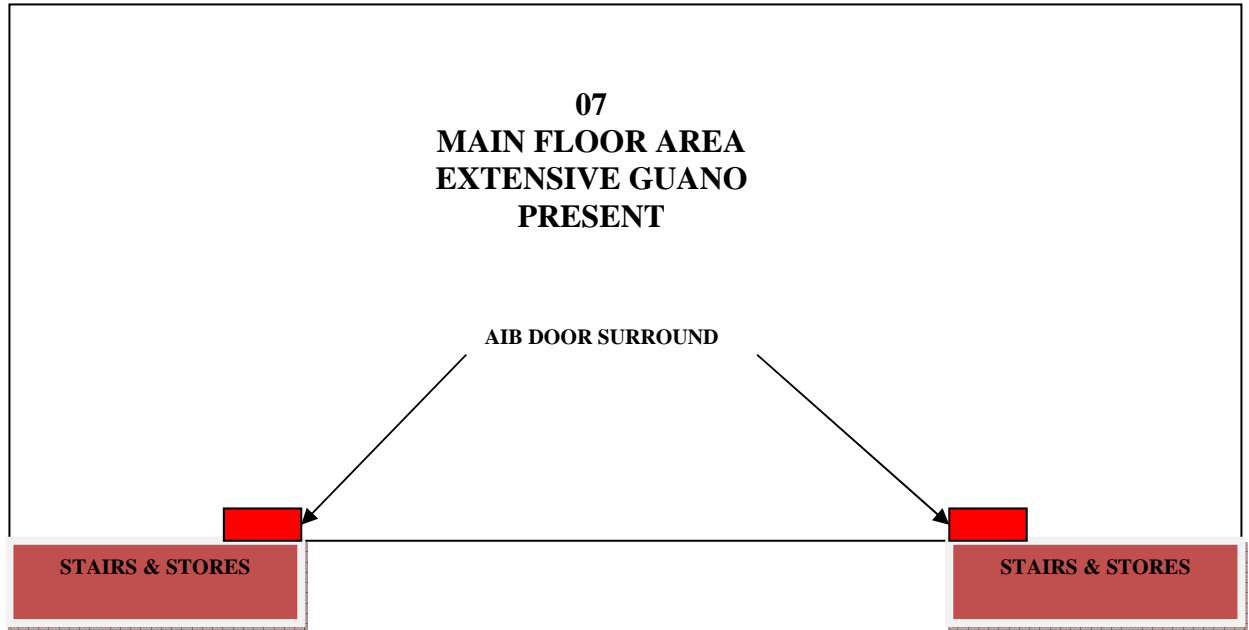
Front Block Ground Floor Plan



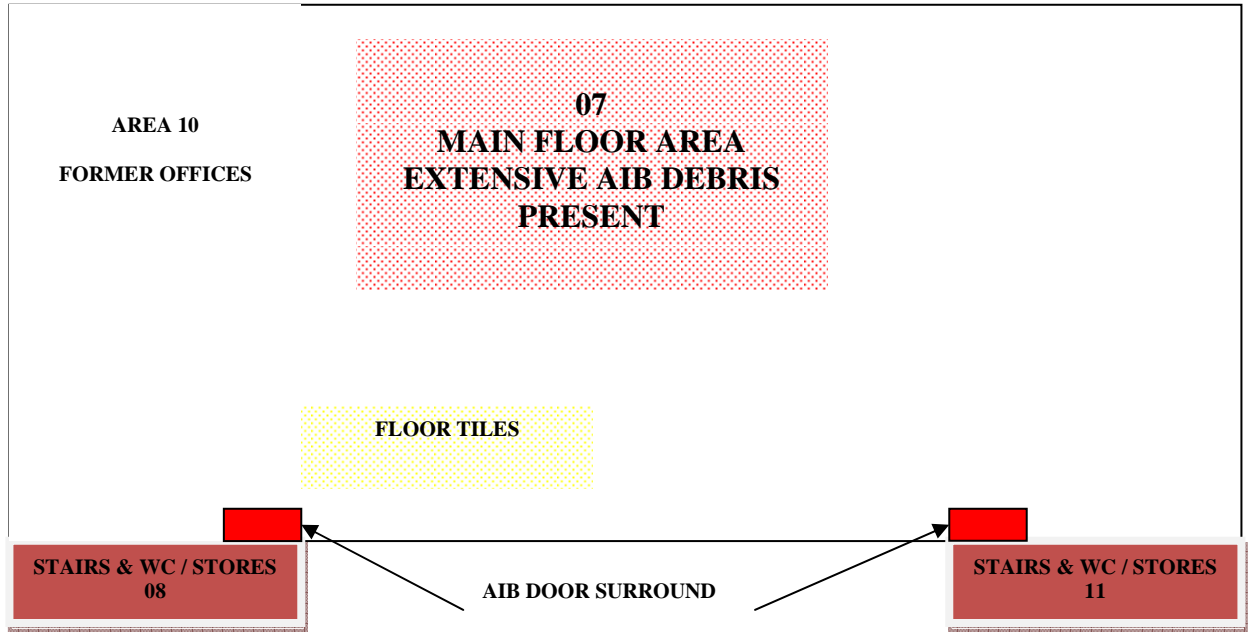
Front Block First Floor Plan



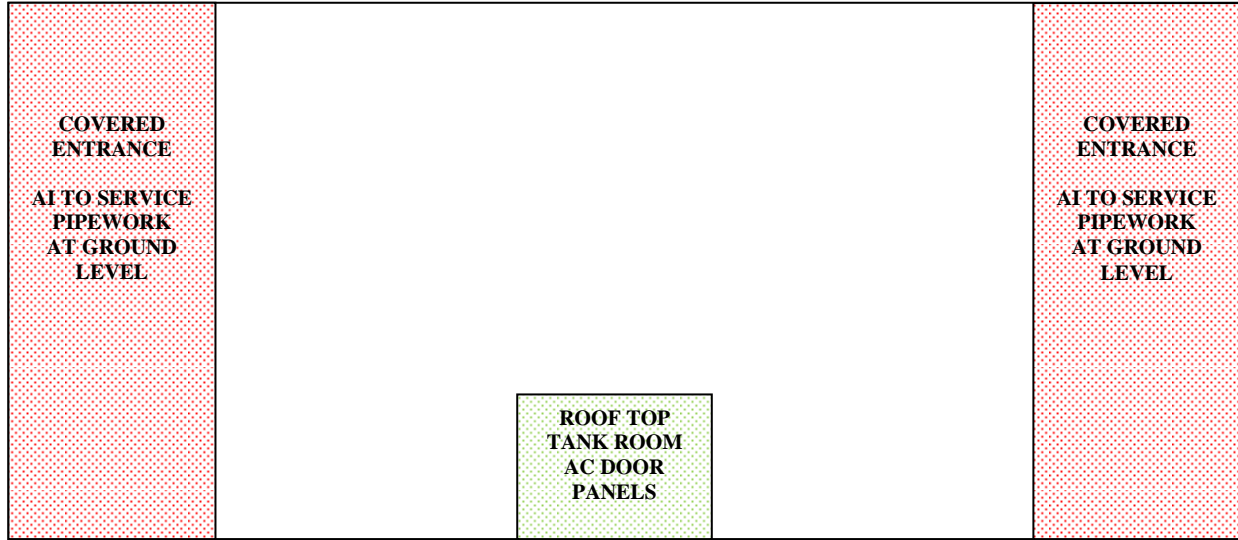
Front Block Second Floor Plan



Front Block Third Floor Plan



Front Block External Plan



Main Site Buildings Plan

