

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

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**THE PERIWINKLE PUBLIC HOUSE
Aldham House Lane
Wombwell
South Yorkshire
S73 8RG**



Report prepared by: Crispin Stephenson

**For and on behalf of: -
DSR Demolition Limited**

**Dated: 2nd December 2009
REPORT No: ASC/SUR/CS/0097**

REPORT DETAILS

Site: **The Periwinkle PH**
Aldham House Lane
Wombwell
South Yorkshire
S73 8RG

Client: **DSR Demolition Limited**
The Sidings
Station Road
Deepcar
Sheffield
S36 2SQ

Client Contact: Mr Simon Ogden

Survey Date: 29th November 2009

Surveyor: Crispin Stephenson

Signature: 

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SURVEY BRIEF

To carry out a Type 3 asbestos survey to the property formerly known as The Periwinkle Public House, Aldham House Lane, Wombwell, South Yorkshire S73 8RG.

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:	The Periwinkle, Aldham House Lane, Wombwell, South Yorkshire S73 8RG			
Building Ref	Floor	Room	Accessed	Comments
Garage	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Main Floor Areas	Ground	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Landlords Flat	First	All Areas	YES	Suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Roof Void	First	All Areas	YES	No suspected asbestos materials sampled No assumed non-asbestos fibrous materials present
Main Block	Basement	All Areas	No	Flooded at time of survey. Presumed asbestos containing materials present.

ASBESTOS REGISTER

Site:	The Periwinkle PH, Aldham House Lane, Wombwell, South Yorkshire S73 8RG			
Sample No.	Location	Building Material	Asbestos Type	Action Priority
GB/01/01	Garage Block - Ground Floor Area 01 – Roof Lining Boarding	AIB Lining Panels ~ 20 sqm	Amosite & Chrysotile	N/A
SA/01/01	Staff Accommodation – Kitchen Floor Tiles – Cream Coloured	Thermoplastic Flooring ~ 10 sqm	Chrysotile	N/A
SA/02/01	Staff Accommodation – Stairwell Floor Tiles – Cream Coloured	Thermoplastic Flooring ~ 5 sqm	Chrysotile	N/A
No Sample	Front Block – Roof Level Walkways – Promenade Tiles	Asbestos Cement ~ 10 sqm	Crocidolite & Chrysotile (Default for survey)	N/A

DISCUSSION

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

ASBESTOS THERMAL INSULATION

Sample Location: N/A

Asbestos containing insulation has not been found during the course of the site survey.

ASBESTOS INSULATION BOARDING

Sample Location: GB/01/01 - Garage Block – Roof Lining Panels

A sample taken from the above reference location has been 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*.

ASBESTOS COATINGS

Sample Location: N/A

No asbestos containing coatings have been found during the course of the survey.

ASBESTOS CEMENT PRODUCTS

Sample Location: No Sample - Front Block – Roof Level External Walkways – Promenade Tiles

A visual examination has been made of the walkway tiles (access restricted due to damaged roof structure). In the opinion of the surveyor the material is asbestos containing cement and by default the asbestos content is stated as being Crocidolite and Chrysotile (blue and 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 PRODUCTS

Sample Location: SA/01/01 & SA/02/01 – Staff Accommodation – Kitchen & Stairwell – Thermoplastic Flooring – Cream Coloured

The samples of the bonded thermoplastic materials used as flooring within the above areas of the first floor staff accommodation 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 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.

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 trades 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:	The Periwinkle PH, Aldham House Lane, Wombwell S73 8RG
Building:	Garage Block
Floor:	Ground Floor
Room/Area:	Garage

Component:	Insulation Boarding	Sample No:	GB/01/01
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:	20 sq.m		
Photo Number:	001		Action Priority:

Comments:	Asbestos Insulation Board panels forming the internal roof lining boarding to the garage roof and adjacent fire escape corridor
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	The Periwinkle PH, Aldham House Lane, Wombwell S73 8RG
Building:	Garage Block
Floor:	Ground Floor
Room/Area:	Garage

Component:	Insulation Boarding	Sample No:	GB/01/01
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:	20 sq.m		
Photo Number:	002	Action Priority:	N/A

Comments:	Asbestos Insulation Board panels forming the internal roof lining boarding to the garage roof and adjacent fire escape corridor
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	The Periwinkle PH, Aldham House Lane, Wombwell S73 8RG
Building:	Main Block
Floor:	First Floor
Room/Area:	Kitchen

Component:	Thermoplastic Tiles	Sample No:	SA/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:	10 sq.m		
Photo Number:	003	Action Priority:	N/A

Comments:	Asbestos containing thermoplastic floor tiles within the Kitchen area of the staff accommodation. Cream coloured.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	The Periwinkle PH, Aldham House Lane, Wombwell S73 8RG
Building:	Main Block
Floor:	First Floor
Room/Area:	Staff Accommodation Stairwell

Component:	Thermoplastic Tiles	Sample No:	SA/02/01
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:	5 sq.m		
Photo Number:	004	Action Priority:	N/A

Comments:	Asbestos containing thermoplastic floor tiles within the Kitchen area of the staff accommodation. Cream coloured.
Recommendation:	Remove prior to demolition / refurbishment

BUILDING SURVEY REPORT SHEETS

Site:	The Periwinkle PH, Aldham House Lane, Wombwell S73 8RG
Building:	Main Block
Floor:	External
Room/Area:	Roof Level above Front Bar Area

Component:	Cement Tiles	Sample No:	No sample
Sampled By:	C Stephenson	Asbestos:	CROCIDOLITE/CHRYSTOLE

Condition:	Fair		
Friability:	Low		
Surface Treatment:	None		
Position:	External		
Accessibility:	Low		
Exposure:	Maintenance		
Room/Area Size:	N/A		
Approx. Amount of Material at Location:	10 sq.m		
Photo Number:	005	Action Priority:	N/A

Comments:	Asbestos containing external promenade tiles.
Recommendation:	Remove prior to demolition / refurbishment

ANNOTATED SITE DRAWINGS

Ground Floor Plan



First Floor & External Areas Plan

