



FORMAL NOTICE

Release of Asbestos Fibres in CLASP Buildings

Distribution:
CLASP Building Owners
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Scape System Build Ltd is a trading company
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During August 2006 an incident occurred at a property in Rhondda Cynon Taff where during works on a school asbestos fibres were released above acceptable levels. As a result a number of schools were closed and remedial work undertaken. The schools and community buildings were of CLASP mark 4 and 4B design.

Further investigations carried out by the Council and the HSE showed that asbestos insulating board fitted during the original construction had been disturbed and fibres been released into the building through gaps in column casings and internal lining to the external wall. The asbestos had been disturbed as the result of a number of events:

- During the construction waste material, including asbestos insulation board and asbestos cement sheet, had been discarded within the external wall cavities and roof space.
- Works, mainly the fitting of cables had been undertaken post the original construction.
- Windows had been replaced fixing the new by means which required the disturbance of the column casings and other elements. The window replacement was not carried out using a CLASP/Scape nominated installer.
- Debris from previous asbestos removal works.

What is not known from this event is whether fibres would have been released had the column casings not been removed and refitted and the asbestos insulation board had not been disturbed.

Asbestos fibres once settled as dust require a mechanical means to disturb them. They do not become air borne by means of a draught of air. The HSE recommend that when asbestos can be adequately encapsulated it is not removed.

Recommended Actions

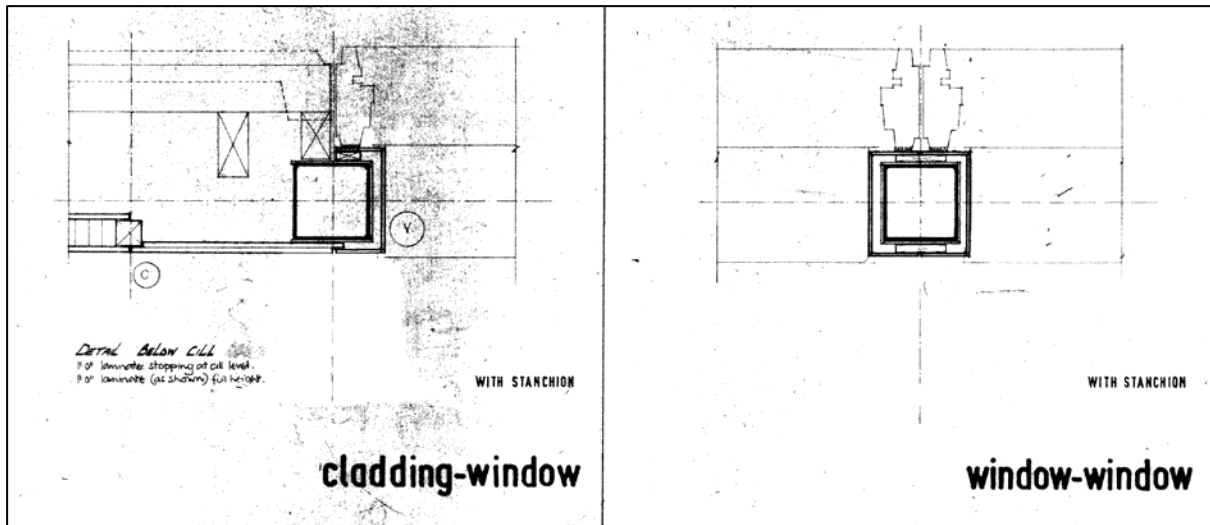
Scape, in consultation with the HSE, recommend the following actions:

- Ensure that best practise is followed in the applications of the Control of Asbestos at Work Regulations 2002 and in the selection of contractors and consultants for the carrying out the asbestos removal works. (Further information can be obtained from www.hse.gov.uk)
- Carry out a visual inspection of following items to ensure that there are no gaps in the elements of the internal lining to the external wall, pay particular attention to column casings and blind boxes.
- Priority for the visual inspection be given to:
 - Buildings constructed prior to 1974
 - Where refurbishment works have disturbed the column casings and the internal lining to the external wall.
 - Where ceilings have been accessed and tiles not replaced correctly

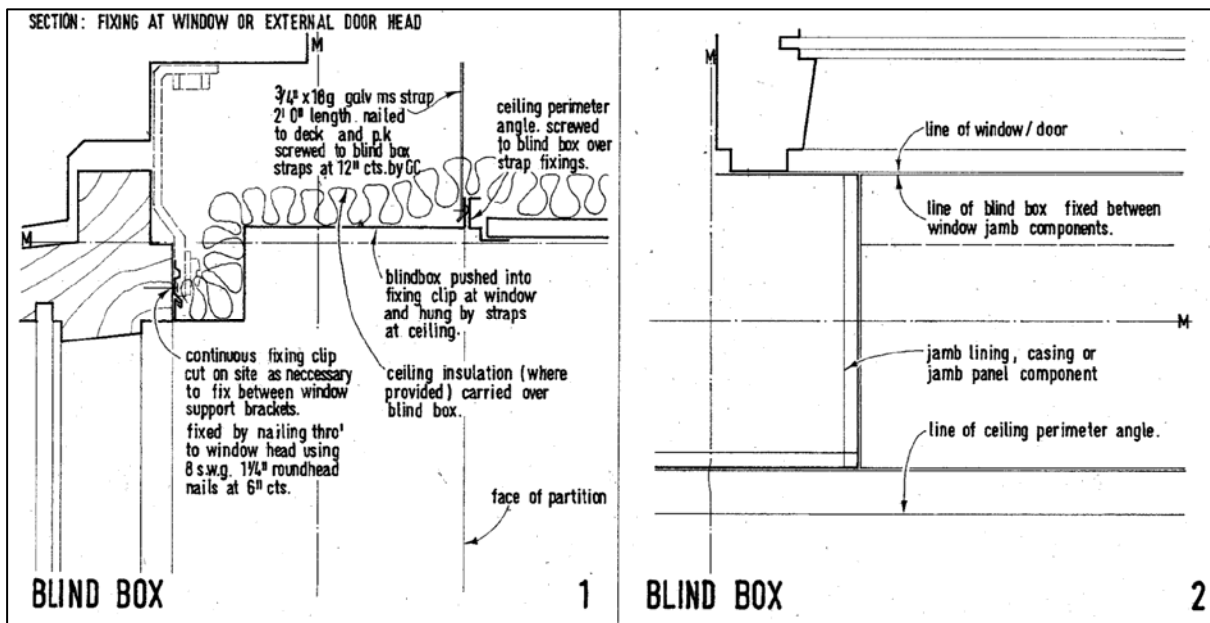
To enable owners to gauge the implications of the RCT incident for their organisation they may chose to sample survey buildings.

If gaps are found they need to be sealed with a silicone seal.

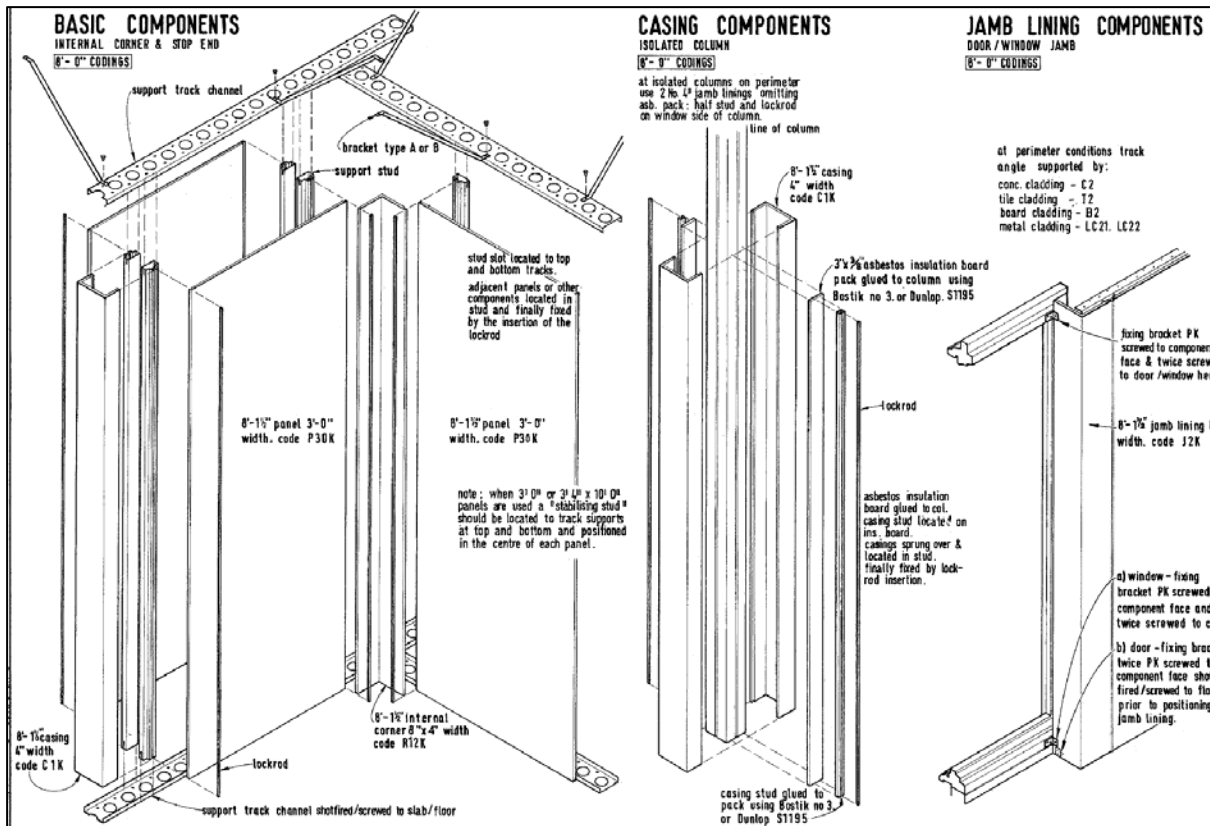
COLUMN CASING AT WINDOWS – MARK 4



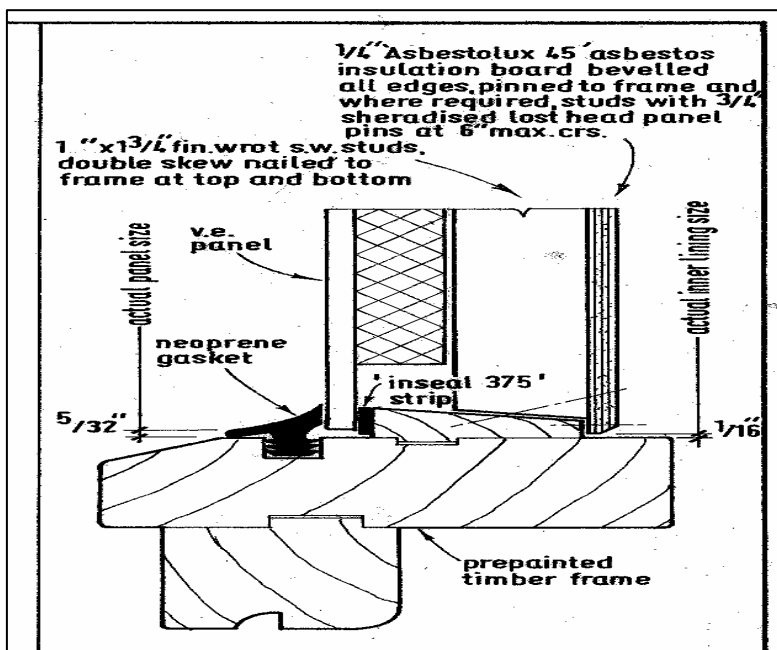
BLIND BOX – MARK 4b



CASING COMPONENTS – MARK 4b



INNER LINING TO V.E. PANELS – MARK 4b



Further Information

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The Scape **Asbestos Awareness Handbook** can be down loaded from <http://www.scapebuild.co.uk/NetBuildPro/process/29/BuildingSystems.html> . The Handbook is not a substitute for the correct performance of the procedures and surveys set out in the HSE Regulations. It does provide guidance as to where asbestos was typically specified in the CLASP standard details.

HSE Guidance note

Attached is a note prepared by the HSE in Wales and distributed to the Welsh Assembly, Scottish Executive and the DfES on 11 October 2006.

For clarification:

References in the HSE document to cladding are metal column casings.

In standard details the Asbestos Insulation Board was bonded to column casing. It was bonded direct to the column in some instances.

In the case of the Welsh schools where the incident took place the column casings were loose, but they had been removed and refitted.

Scape

Scape System Build Limited is a Local Authority Controlled Company. It commenced business in April 2006 and is the trading company for the CLASP Consortium. For more detail consult the Scape web site www.scapebuild.co.uk and the CLASP web site www.clasp.gov.uk.

DRAFT FOR DISCUSSION

POTENTIAL FOR ASBESTOS FIBRE RELEASE IN CLASP BUILDINGS

- 1 A Local Authority (LA) in Wales have discovered potential for exposure to asbestos in some of their 'CLASP' constructed schools. CLASP is the Consortium of Local Authorities Special Programme.
- 2 Mark 4 and 4b CLASP buildings were identified as a cause for concern regarding asbestos fibre release in foreseeable circumstances. However, this should not exclude other types of CLASP buildings e.g. asbestos material was also used in the construction of Mark 2, 3, 3b, 4, 4b and 5 buildings.
- 3 The schools are steel framed buildings, the steelwork being clad with asbestos insulation board (AIB), possibly for fire protection. The AIB itself is encapsulated with metal cladding, which in some cases is fixed to the AIB using screws. In some cases the AIB is fixed to the cladding rather than the steel beams. There are gaps in the metal cladding of various dimensions. In some cases the cladding is very loose. The AIB contains amosite.
- 4 It has been found that if the cladding is struck, asbestos fibre can escape into the room. The degree of escape of fibre varies. In some cases levels in the general atmosphere of the room are very low. But in others levels have been found that exceed the control limit. The striking was three or four sudden blows and is the kind of disturbance that is foreseeable in a school environment. Disturbance is also foreseeable when doors are slammed where the doors are adjacent to damaged AIB / loose cladding or where possible wind loading on replacement windows which have been fixed by screws directly into the steel columns which are clad with AIB. HSE sampling has confirmed sampling results found by independent Council funded sampling.
- 5 The disturbance was carried out under controlled conditions in a tented environment in which the negative pressure was switched off for the duration of the sampling. Personal samplers were worn during tenting. It is understood levels were below clearance levels. So this provides some reassurance that during 'normal' conditions when the cladding has not been struck levels are not significant.
- 6 The standard of cleanup after construction at the schools visited was poor with off cuts of AIB being left in ceiling voids etc. The condition of cladding has deteriorated over the years and sockets and other fixtures have in some cases been screwed through the metal cladding and probably into the AIB. Window replacement was also carried out to a poor standard with frames screwed into the asbestos. All of these are likely to be 'risk factors'
- 7 The mechanism of release is not clear. But in the worst cases it may be associated with the screws moving in the AIB abrading it, the striking of the cladding acting like a 'bellows' to disperse fibre. A number of factors are likely to be relevant to the degree of fibre release including damage to the AIB, overall maintenance of the building, gaps in cladding etc. HSE specialists are currently looking into this issue.

- 8 During construction it also seems that off cuts of AIB and debris have in some cases been swept into the gap between the wall and plasterboard stud partitioning or wall cladding. Skirting boards then sealed this debris in. When the plasterboard was struck fibre was again released through the skirting board gaps. Not all contractors will have been so cavalier in their approach so this issue may be limited in scope. Examination of another CLASP school of similar design has indicated a much better standard of construction – and a much better standard of window replacement. Release of fibre from struck cladding in this school has not been quantified but is likely to be much lower.
- 9 There are many thousands of buildings constructed under the ‘CLASP’ scheme. Of these a number will be constructed using this type of steel frame with AIB / metal cladding. The link below is to the CLASP/SCAPE website. SCAPE are now responsible for current buildings and have identified CLASP buildings constructed in the way described. A list is attached. The problem will be UK wide (maybe Europe wide). The number of CLASP schools varies hugely with some councils having dozens and others apparently none.
- 10 The Local Authority in Wales took the step of sealing gaps in the cladding using silicone sealant, expandable foam and other similar sealants. Sampling has confirmed that sealing using this method has been effective in preventing significant release of asbestos fibres.
- 11 SCAPE/CLASP will also be sending out a briefing note to all CLASP building owners.

<http://www.clasp.gov.uk/>

ACTION REQUIRED

- 12 As a priority you should identify the Mark 4 and 4b CLASP buildings under your control for attention. As described above, sealing gaps in the cladding using silicone sealant, expandable foam and other similar sealants has been found to be effective in preventing significant escape of fibre to levels below the clearance level. Initially this sealing/encapsulation work should be carried out below ceiling level. The work should be undertaken as a priority to mitigate any potential asbestos fibre release. Following this, monitoring for fibre release should be undertaken as reassurance.
- 13 Essentially, this is a duty under the Control of Asbestos at Work Regulations 2002, in that duty holders have responsibilities regarding the duty to manage asbestos which not only requires them to assess whether asbestos is present but also to determine the risk and prepare and implement a plan for managing the risks which must be reviewed at regular intervals. There is more guidance available on HSE's web site at <http://www.hse.gov.uk/asbestos/index.htm>.

- 14 A distinction should be made in terms of who would be competent to undertake this work. Sealing/encapsulation work as described in Appendix 1 attached is unlikely to disturb asbestos in these circumstances. Therefore carrying out this work below ceiling level can be carried out by non-licensed contractors as long as they have been trained and equipped as described in the appendix below. Work above ceiling level, in the ceiling/roof voids should only be carried out by asbestos licensed contractors because there is risk of asbestos contamination in these areas.
- 15 As mentioned above, asbestos material was also used in the construction of Mark 2, 3, 3b, and 5 CLASP buildings. These buildings should also be inspected and risk assessed as part of routine duty to manage.
- 16 For further advice/information: contact your local HSE office.

APPENDIX

1. METHODOLOGY

Short-term Solution

All gaps to column cladding, skirtings, and walls to be sealed to enclose the AIB dust and debris. Also UPVC finishing strips can be used as finishing over the top of the gaps using the same sealant.

Following remedial works, air monitoring to be carried out to ensure enclosure/encapsulation of asbestos has been successful. Re-assurance air monitoring is then carried out on the basis of a risk assessment.

Asbestos re-inspection surveys will also be required as part of the Asbestos Safety Management Programme.

Longer-term Solution

Use expanded foam to fill tops of the columns and cavity walls where they are open to the ceiling void above the suspended ceilings. This work should only be carried out by Licensed Asbestos Removal Contractors.

Asbestos monitoring should be carried out on a regular basis in accordance with regulation 4 of the Control of Asbestos at Work Regulations 2002, as part of an asbestos management programme.

2. TRAINING

Suitable induction training in relation to asbestos awareness should be provided to those managing this work and to all employees undertaking the work to ensure that they are competent to do the job safely. The training should include how to wear Respiratory protective equipment (RPE), and inform staff what asbestos is (the types) and what the risks and health effects are from exposure to asbestos.

PERSONAL PROTECTIVE EQUIPMENT

All employees involved in supervising or handling asbestos waste should be provided with suitable and appropriate PPE as a precaution only. Suitable PPE would include:

- Disposable overalls (type 5) fitted with a hood.
- A suitable particulate respirator e.g. a disposable FFP 3 mask.
- Cover shoes or boots without laces e.g. (laced boots can be difficult to decontaminate).
- All PPE should be inspected before use, and any defects reported to the relevant supervisor.

When putting on PPE remember to put the facemask on under the hood of the asbestos suit and not over the hood.