

Fire in System Built Schools

Staff and children had to be evacuated from Catherine Junior School in Leicester on October 30th 2012 when workmen repairing the roof set fire to the school. The staff and children were evacuated without any injuries.¹ It is apparent from the list of CLASP² buildings that the school is a CLASP Mk 4b constructed in 1970. The design of this, and other system built schools, has been criticised by Fire Authorities as unsafe following previous fires in similar buildings.



Catherine Junior School Leicester 30 October 2012

Following a serious fire at a secondary school in Wales a Fire Authority report stated: “CLASP... was basically a building construction technique introduced post-war and popular in the 1960's for short-term, cheap and easily constructed buildings such as schools, fire stations, libraries etc. CLASP buildings of wood and concrete panel construction encompass a vast number of hidden voids through which fire is able to travel rapidly, unseen and unchecked.”³

CLASP is similar to many other system built schools as it has an open ceiling void and open wall voids that allow the rapid spread of fire. A parliamentary written answer in 2004 stated that new build system built schools are required to have compartmentation fire protection but until 2001 schools were exempt from building regulations. The Minister’s answer implied that the law has not required existing stock to be brought up to current standards.⁴ Although some have had firewalls retrofitted in the ceiling void since they were constructed many still have open voids. Almost half of schools are system built.⁵ More than 3,000 CLASP buildings were constructed in Britain, most of which are schools. 2,000 SCOLA buildings were constructed, all of which are schools.

¹ [A massive asbestos decontamination project will have to take place at Catherine Junior School, See this link for a current court case and similar incidents](#)

² CLASP Buildings by owner as at 12 September 2007

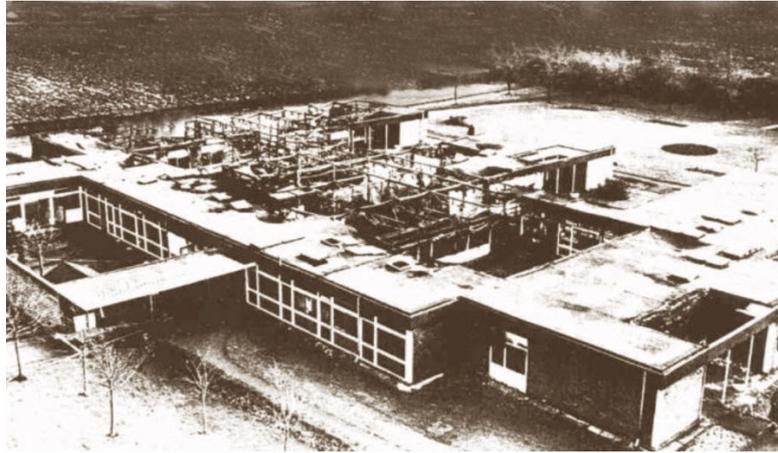
³ Fire Authority report Swansea County Command April 2006 Penyreol Comprehensive school

⁴ Parliamentary written answer. School Buildings Gerald Howarth MP. Minister of State for Schools David Miliband MP 14 Jun 2004 http://www.publications.parliament.uk/pa/cm200304/cmhansrd/vo040614/text/40614w40.htm#40614w40.html_sbhd3

⁵ Scape School building overview www.scapebuild.co.uk

The Fire Officers Associated has lobbied for sprinklers to be fitted to system built schools. Ironically because of the widespread presence of asbestos some local authorities have taken the decision that it is too expensive to install sprinkler systems. (see Annex)

Although there were no injuries at Catherine Junior School that has not always been the case in CLASP buildings. In 1972 there was a fire in Fairfield nursing home in Nottinghamshire, it was a CLASP building. 30 people died.⁶



Fairfield nursing home Nottinghamshire 5 Jul 1972

The following year there was a fire in a boarding school outside Paris, the Edouard Pailleron School. It was a CLASP building. 21 children died.⁷



Edouard Pailleron School 6th February 1973

⁶ Fire at Fairfield nursing home Nottinghamshire 5 Jul 1972 <http://www.cookeonfire.com/pdfs/Fairfield.pdf>

⁷ Towards a social architecture. Andrew Saint p206

System built schools built before 1980 normally contained large amounts of asbestos in walls ceilings, window and door surrounds and on column casings which poses a potential risk to the occupants.⁸

The asbestos was used in the construction to prevent the spread of fire, however each year there are more than 1,300 fires in schools.⁹ A number of schools have been completely destroyed by fire. If a fire occurred in a school where the pupils could not be evacuate rapidly then the outcome could be very different from the outcome at Catherine Junior School.

Annex: Extracts from reports:

"Fire Authority report 18 March 2006:

Twelve appliances attended a severe fire at Penyreol Comprehensive school..... The school had been a three storey building ... housing about one thousand pupils and staff. The blaze spread rapidly through the school due to its "CLASP" construction ("CLASP... was basically a building construction technique introduced post-war and popular in the 1960's for short-term, cheap and easily constructed buildings such as schools, fire stations, libraries etc. CLASP buildings of wood and concrete panel construction encompass a vast number of hidden voids through which fire is able to travel rapidly, unseen and unchecked.)"¹⁰

Fire Officers Association. Fire sprinklers save our schools

"School fires are a national problem. Every year 2000 schools in Britain are damaged by fire.... The majority of school fires are occurring during term-time and normal school hours..."¹¹

Coventry City Council

"Coventry City Council, in common with many other local Education Authorities, was a member of a consortium which used a modular construction system in order to produce schools cost effectively. Unfortunately this type of construction, CLASP, is known to be a significant contributor to the spread of fire throughout the premises due to the non standard construction and the lack of fire breaks within the roof voids and the wall cavities....

Owing to insurers' concerns over the enhanced fire risk in CLASP and other lightweight construction schools....

By voluntarily adopting some fire stopping in key schoolsUnfortunately the work has been subject to a number of delays and identification of asbestos at the schools has meant that the costs have increased by approximately £50,000."¹²

Leeds

Fire stopping/separation in Consortia constructed schools

Consortia type school buildings, typically Scola and Clasp type construction, offer high levels of risk in terms of property loss due to the lightweight construction and the undivided nature of the ceiling and

⁸ See: [Release of asbestos fibres in System Built schools part 1](#) [Release of asbestos fibres in System Built schools part 2](#)

⁹ DfE Fire safety for schools 2012

<http://www.education.gov.uk/schools/adminandfinance/schoolscapital/buildingsanddesign/environmental/a0010980/fire-safety-for-schools>

¹⁰ Fire Authority report *Penyreol Comprehensive school* April 2006 Swansea County Command

¹¹ Fire officers association *The National Fire sprinkler network* 2002

¹² Coventry City Council Public report 7 16 Nov 2005

roof voids. In such building types, relatively small fires can develop and spread extremely rapidly and extensively....

Significant attention will be required with respect to the impact of asbestos containing materials both within and encapsulating such voids...." ¹³

Zurich Insurance

"School fires often involve the release of asbestos and other contaminants contained in water run-off.

Wakefield

Sprinklers deal with a blaze immediately, save money, improve effectiveness and save lives... Sprinkler systems are expensive to install within existing buildings since they require a network of pipes throughout the building This is very disruptive to the building fabric with installation work above the ceiling and may involve asbestos removal prior to installation.

Having considered the evidence we conclude that installing sprinklers in all our existing schools would be too expensive.

CLASP buildings- Many of the Council's schools were built in the 1960s and 1970s. Because of the design it is more difficult to install sprinklers to this type of building, although not impossible. These buildings have particularly poor compartmentation and as such present an increased fire risk. We would recommend that these schools are prioritised in any capital building replacement programmes, such as the Building Schools for the Future initiative. "¹⁴

Worcester

We conclude that the costs of installing sprinklers in all existing schools is too expensive for the County to bear and do not recommend installation in existing schools. "¹⁵

Fire Officer

"Another big problem is that many are CLASP type buildings with interconnecting voids and cavities especially between floors and above ceilings. Once the fire gets going in the voids it is almost impossible to stop. "¹⁶

Michael Lees
3rd November 2012

¹³ Education Leeds Capital scheme 12383 Sep 2005

¹⁴ City of Wakefield Fire safety in schools Report of the lifelong learning overview scrutiny committee May 2005

¹⁵ Worcestershire County Council Resources scrutiny panel Sprinklers in schools and other council buildings

¹⁶ Firenet Forums Principal member Matlock 15 Nov 2005