



## Timber frame industry in “total denial” over fire risk

CBA has been monitoring, with growing interest, the debate on potential fire risks inherent in timber frame construction. As editor I have trawled the Internet to bring members right up to date.

Concern dates back to a 1983 World in Action documentary which alleged that timber frame houses were more vulnerable to fire and wood rot. The programme was credited with damaging the reputation of timber frame homes and making that type of construction much less popular.

In July 2006 a half built six-storey timber framed residential block by developer St. George at Beaufort Park, Colindale, North London, famously burnt to the ground in less than nine minutes. It took 100 fire fighters five hours to put out the blaze and 2,300 people were evacuated from the area.



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Reportedly, London Borough of Barnet building control officer, Andy James, had been shocked when the architects proposed timber frame for a six storey building. “In the original meetings with the developer and the architects we just could

not believe they would be going timber frame for such a big building’, he said. “If you have a concrete floor design and there is a fire it's going to compartmentalise. If you have timber, it's going to burn right through”.

As a result a report was commissioned by the Fire Protection Association (FPA). That report asked whether, ‘timber construction should be used for high rise buildings’. It then went on to question if timber frame buildings are safe once they are completed. It said that greater consideration should be given to the installation of sprinklers, and to building in fire compartments during construction.

At the same time Brian Coleman, Chairman of the London Assembly and Vice Chair of the London Fire and Emergency Planning Authority, called for an end to the construction of multi-storey timber framed buildings because of the risks to construction workers and occupiers. In fact he went as far as to say: “Nobody in their right mind would buy a timber frame building higher than two storeys”.

2007 proved a particularly bad year for timber frame building fires. In April a fire in Newcastle destroyed a £100 million four storey timber frame development and was described by the local fire brigade as the “biggest in the city for a very long time”. The month before a three storey partially constructed Persimmon development in Willenhall, West Midlands was completely destroyed. The fire brigade was quoted as saying that there was little it could do to prevent the destruction of the building. On Christmas day twelve flats of '70's vintage in Marston Way, Croydon were completely destroyed.

One of the most vociferous commentators on timber frame as a fire risk has been Brian O'Murchu, Editor of Concrete Today, magazine of the Irish Concrete Federation. An April 13th 2007 article of his reads:

“I have been calling attention for a number of years to the problems associated with the use of timber frames in multi-storey, multi-occupancy buildings. I draw your attention to a recent fire in Swords, Co Dublin which highlights the real dangers which face the occupants of timber frame apartments; dangers of which they are completely unaware when purchasing the property.

A serious fire broke out in the Airfield apartments Swords recently, when repairs were being carried out to a first floor balcony. Flames entered the roof cavity and made their way to the adjacent timber frame walls despite the best efforts of the operative who poured buckets of water into the roof space in an attempt to prevent fire spread.

The fire brigade was subsequently called and fire fighters spent over an hour hosing the affected area. When they were about to leave, the fire took hold and spread through the party wall into the attic space and from there to adjacent properties. Six properties were affected and four are likely to be demolished. What is particularly disturbing is that it is pure chance that the repair man noticed the roof cavity had caught fire. Had it gone unnoticed and had the embers smouldered until later that evening when the occupants were sleeping, the result would almost certainly have been serious loss of life.”

In November 2009 another massive fire occurred on a timber frame building site

in Peckham. The fire (pictured) destroyed a partially completed multi-storey development of timber framed affordable homes and badly damaged two adjacent blocks of flats. About 150 fire fighters attended and 310 people were evacuated from their homes.

At the time, Jonathan O'Neill, Managing Director of fire safety body, the Fire Protection Association (FPA), called on the government to put more pressure on the HSE to take a stronger role. He said: “Ministers must act now before such fires not only ruin homes and possessions but also cause serious injury or death”. In the same vein, Peter Jackman, Chairman of International Fire Consultants (IFC) stated that the timber frame industry was “in total denial” over the risks of fire. He stated: “I can't understand it. It's almost as if they have a death wish. As a body they are shying away from the issue”.

More recent research by Professor Ulrich Schneider of Vienna University reinforced the threat, particularly in the case of multi-storey buildings. His report has been widely circulated to the UK regulatory community.



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Through the MMA and the BPCF, to which we are affiliated, CBA continues to heighten awareness of this health and safety issue, with Mike Leonard taking a particularly active role. As far back as July 2008 BPCF Chief Executive Martin Clarke wrote to Ruth Kelly, Secretary of State for Communities and Local Government seeking the following:

- A moratorium on high-rise multi-storey timber framed buildings for housing and other accommodation.
- A ban on timber cladding on low rise buildings.

- A ban on subsidies to timber framed developments by English Partnerships and The Housing Corporation.

The latest news is that the Greater London Authority is conducting a public enquiry into the risks associated with timber frame construction and how they might be mitigated. Submissions have been made on our behalf by BPCF and the enquiry formally opens on the 16th of March this year.

The last words go to CP Davison who makes a reader's comment in Building December 2009: “Isn't it about time that building control officers stood up against the 'green' brigade and used some common sense. Following the Great Fire of London 1666 stricter building codes were introduced requiring the use of brick and stone in construction”. Food for thought.

