

From design to completion

NHBC

Timber Frame – Fire Safety Principles

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NHBC

Timber Frame – Fire Safety Principles

Background

- London Assembly – investigation into tall & timber frame building fire risk
- Perceived risk from the fire service
- Sought input from key industry stakeholders – Report published December 2010
- Series of recommendations made

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London Assembly Report Recommendations

- Review of Approved Documents
- UKTFA guidance
- ACAI requirement to notify
- HSE & BC link review
- No partial occupation of timber frame

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Ministerial meeting

- Stakeholder group meeting again in March
- Focus on timber frame during construction
- Are additional regulations required?
- Stakeholder group has building control bodies closely working with the fire service

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Current research

- UKTFA / CFOA working party
- NHBC Foundation research project – ‘Fire performance of residential buildings’ - April 2011
- Existing guidance documents – ‘UKTFA 16 steps to fire safety on timber frame construction sites’ & ‘HSG 168 Fire Safety in Construction’

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NHBC position

- No preference for a particular construction method – providing suitable for intended purpose, including design life & durability
- Properly designed & constructed, timber frame used successfully for many years
- Opportunity for better security & management during construction
- Critical elements – firestopping, compartmentation, fire safety principles

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Fire safety principles

- Building Regulations & Scottish Building Standards
- Fire Safety (Scotland) Regulations 2006
- Non-combustible materials above 18m
- Principles for timber frame are no different than any other type of construction

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Key issues

- Design & build in accordance with regulations
- Safety during construction
- Firestopping
- Compartmentation & cavity barriers
- Management post occupation

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Design

- Protection to structure
- Provision of safe route of escape
- Provision of compartmentation
- Reducing risk within cavities and concealed spaces
- External fire spread

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Compartmentation

- Separating structure between flats
- Separating structure between flats & common spaces
- Separation of risk areas within a building
- To prevent fire spread from compartment of origin

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Compartmentation

- Concealed spaces & cavities
- Protected shafts & service risers
- Roofspaces
- External cavity walls & cladding systems


CH


Koolhaven

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Construction phase

- Good site management
- Ensuring design is correct – identifying key areas for inspection early
- Key stages of compartmentation & firestopping – witness / sign-off


Kooltherm

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Building Management

- Fire Safety Risk Assessment – duties & responsibilities
- Owner education
- Provision of information within handover packs
- Building management post occupation

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Conclusion & Summary

- Good design
- Practical phasing
- Robust inspection process
- Post occupation management