
Planning Committee

Miscellaneous Item: 09

Paul Southern





**Bracknell Forest Council Planning
Committee Presentation.
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**ROYAL BERKSHIRE
FIRE AND RESCUE SERVICE**

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Why Now

- RBFRS are entering a comprehensive spending review, which is likely to affect the emergency cover provision across Berkshire, including Bracknell, therefore design out the risk from fire at the pre-construction stage
- Bracknell is going through a significant phase of development



Royal Berkshire
A place where people
lead safe and fulfilling
lives

Royal Berkshire Fire Authority's New Policy Direction

Strategic Commitments & Policy Statements

Commitment 3 – We will ensure appropriate fire safety standards in buildings.

Outcomes:

- 1. Minimise the risk to life from fires and other emergencies.*
- 2. Minimise the social, economic and environmental impact of fires and other emergencies.*
- 3. Support responsible economic growth in Royal Berkshire.*

Focus area:

Increasing installation of sprinklers and other fire suppression systems.

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Strategic Commitments & Policy Statements

Commitment 4 – We will seek opportunities to contribute to a broader safety, health and wellbeing agenda.

By fulfilling this commitment, we intend to achieve a broad range of positive outcomes, including those associated with

1. Raising aspiration, attainment and employability of young people
2. Improving public health outcomes
3. Reducing crime and disorder
4. Public Safety

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The Ideal World

- Legislation to require;
 - All new buildings to be fitted with sprinklers and
 - Existing buildings to be retro-fitted with sprinklers

Our Aspiration

- Ensure timely, properly-informed decisions on whether to install fire suppression systems in new and refurbished buildings
- Fit/Retrofit fire suppression systems in premises housing vulnerable people

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Current Legislation

- **Approved Documents** - accompanying Building Regulations in England and Wales make specific reference to the use of sprinklers
- **Life safety** - new residential blocks over **30m** high must be fitted with sprinklers to meet Approved Document B
- Un-compartmented areas in a shop or self storage building over **2000 m²** require sprinkler protection.
- Regulations apply to large single storey buildings for industrial or storage use, where the largest permitted unsprinklered compartment is **20,000 m²**
- **Regulatory Reform Order** requirement to consider sprinklers

Sprinkler Myths

MYTH: In a fire all the sprinkler heads go off together.

THE TRUTH: Only the sprinkler head(s) directly affected by the fire is triggered

MYTH: Water from the sprinkler causes more damage than the fire.

THE TRUTH: Sprinklers attack the fire quickly and directly so less water is needed

MYTH: A smoke detector will always provide enough protection.

THE TRUTH: Operational smoke detectors do save lives, however they do nothing to extinguish a growing fire.

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Sprinkler Myths (2)

- **MYTH: Sprinklers go off accidentally.**
- **THE TRUTH:** The odds of winning the lottery are greater than the 16 million to one chance of a sprinkler malfunction
- **MYTH: Sprinklers are ugly and unsightly.**
- **THE TRUTH:** Modern sprinklers are specially designed to meet the needs of architects for use in offices, hotels, shops, hospitals and prestige buildings. They are compact and elegant. In most buildings the public are usually unaware that sprinklers are fitted.

How Sprinklers Work

- <http://www.youtube.com/watch?v=GEblyC8wcrI>

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Benefits of Sprinklers — reducing social, economic and environmental impacts

Sprinklers can:

- Reduce death and injury from fire.
- Reduce risks to fire fighters.
- Protect property and heritage.
- Reduce the effects of arson.
- Reduce the environmental impact of fire.
- Reduce fire costs and the disruption to the community and business.
- Permit design freedoms and encourage innovative, inclusive and sustainable architecture (BS 9999)



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Design Freedoms

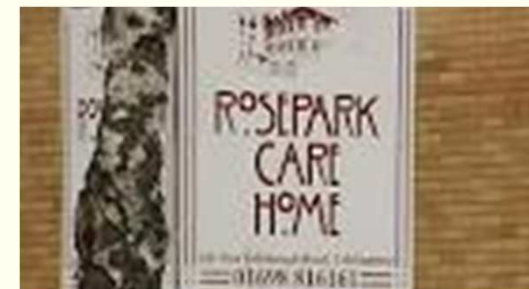
- Larger compartment sizes, more open spatial designs
- Extending travel distances, reduced exit door widths
- Reducing periods of fire resistance to elements of structure
- Reducing space separation constraints, for example, distances between buildings
- Overcoming firefighting access constraints
- Allowing more flexible building management plans for the end user

Care Homes

- Elderly, people with mental health problems and those with mobility issues are most at risk from fire
- All residential care homes should be fitted with sprinklers
- In Scotland it is a Building Standard requirement for all new build residential care premises to have automatic fire suppression systems installed

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Schools

- Hundreds of schools in the UK have a fire each year
- The impact of a fire is significant in; financial terms, the devastating effect upon the communities they serve and the disruption to students, teachers and families.
- The effect on children's education is not confined to lost course work, but often include longer travelling times, disrupted social groups and poorer facilities.
- BB100

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Domestic Premises

- Fires in the home still account for the greatest number of fire deaths and injuries each year.
- Ideal - all domestic premises to have sprinklers
- RBFERS advocate fitting sprinklers in the homes of people most at risk from fire; – young/old people, people with mental health problems and those who have mobility problems.
- Housing association business continuity
- Blocks of Flats

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Commercial Premises

- Sprinklers in commercial premises reduce loss of production or interruption to business
 - 85% of small and medium businesses that suffer a serious fire either never recover or cease trading within 18 months.
 - Losses due to fire would reduce and fewer businesses would be forced to relocate to cheaper locations.
 - The loss or relocation of a business = loss of business rates to Bracknell

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The Cost of Fire

- Average cost of a fire in a domestic property is estimated at **£44,523**
- DCLG estimate the cost of a fire fatality at **£1.65m**, and the cost of a serious injury at **£185,000**
- Commercial fires cost more than **£2 billion** to the UK's economy per year
- Cost of unemployment from a warehouse fires is **£14.2K ± £5.4** per man year
- Cost of school fires is approximately **£100m** per year

Cost of Sprinklers(LGA the cost of sprinklers)

| | | |
|---|---|---------------------------------------|
| Primary School - 125/150 pupils | Approx. £65,000 for sprinklers + £40,000 for additional project costs | Approx. £10-15/m ² |
| Typical 3/4 bedroom detached house | £3000-£3500 if mains pressure adequate (add £750 if not) - reduced by 10-15% for more houses on a development | 1-2% of build costs |
| High rise or larger public building with complex layout | 1.5-1.9% of new build costs | £18-25/m ² of the building |

Examples of significant fires where sprinklers may have made a difference

- RosePark Care Home, Scotland – 31 January 2004
 - 14 elderly residents died
- Residence du Havre, Quebec – 23 January 2014
 - 32 elderly residents died, 15 injured
- Shirley Towers – 6 April 2010
 - 2 firefighters died
- Lakanal House - 3 July 2009
 - 6 residents died



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Not Always A Case

- RBFRS recognise there isn't always a case for fitting fire suppression systems, however there are a number of premises where the case can and should be made

A tale of two fires



Leicester 7 August 2014 (building with several businesses)

- major disruption with 200 homes having to be evacuated
- caused the collapse of the four-storey building
- next door petrol station had to be evacuated and protected
- building demolished and businesses severely affected

Towcester, 20th August 2014 (high tech printed circuit boards)

- caused one sprinkler head to operate in the affected area
- Fire damage limited to one specialist machine
- None of the 30 staff injured, fire reported as 'out on arrival'
- No report of business disruption; if lost, cost estimated £1.5b

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Examples of sprinkler projects

- Callow Mount, Sheffield
 - 13 storey tower block managed as sheltered housing
- Studley green, Wiltshire
 - 200 social housing properties fitted with sprinklers
 - 3 sprinkler “stops” since 1999
- CFOA lobbying of government
- Local policies to work with local authorities to secure the installation of sprinklers
- Fire Services retrofit of sprinklers projects

Summary

Where a sprinkler system has been installed

- Fire deaths are eliminated
- Fire-fighters are exposed to fewer risks and are safer
- Property damage has been reduced by over 80%
- A reduction in the environmental impact of fire – fire-fighters often use 15 times more water from hoses to do the same job as a sprinkler
- A reduction in the economic cost of fire

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How you can help

- Recognise the value of sprinkler installations to support sustainable community safety, economic well being, public health, social care and education
- Ensure timely, properly-informed decisions on whether to install fire suppression systems in new and refurbished buildings in Bracknell
- Fit/Retrofit fire suppression systems in premises housing vulnerable people in Bracknell

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Organisations supporting sprinkler installation

- Local Government Association
http://www.local.gov.uk/web/guest/fire-and-rescue-services/-/journal_content/56/10180/3796487/ARTICLE
- Chief Fire Officers Association
www.cfoa.org.uk/download/38472
- Royal Berkshire Fire Authority
http://www.rbfrs.co.uk/microsite-cfs/fsc_sprinklers.asp
- All Party Parliamentary Committee Fire Safety & Rescue Group
<http://www.parliamentlive.tv/main/Player.aspx?meetingId=14728>

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Thank you

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