



Warwickshire Fire and Rescue Service

Business case for provision of domestic sprinklers in residential developments

Every year fire claims around 600 lives in the UK and many more suffer long-term injuries, the vast majority of these deaths occurring in residential properties.

Residential sprinklers can provide a package of fire protection for homes, which protect not only lives, but also has the advantage of reducing property and content damage. The benefits are simple:

1. Proven success – Fire sprinklers are by far the most efficient and effective safety devices known to man. Over the past 130 years they have had a success rate of over 99% in controlling fires around the world.
2. Widely used – More than 70 million sprinkler heads are installed worldwide each year. The UK lags far behind the rest of the world; this is a trend Warwickshire Fire and Rescue Service is determined to reverse.
3. Ultimate protection – The installation of sprinklers will virtually eliminate fire deaths, reduce injuries by at least 80% and reduce property damage by 90% and substantially reduce damage to the environments by the reduction of unwanted air pollutants. This is good for our economy and environment.
4. Dependable – Fire detection can only warn of a fire starting. Sprinklers not only warn but they also immediately act to control it, even if no one is present. In fact it will probably have gained control before the Fire Service arrives.
5. Responsive – Over 60% of fire casualties are physically or mentally disadvantaged, which slows or prevents their escape. Fire sprinklers will aid their safety by controlling the fire while others react to the alarm to support their escape.
6. Saves lives – 75% of all fire casualties occur in the home. You are most at risk in the home from fire than anywhere else. Your chance of experiencing a serious fire in your lifetime is 1:5 so sprinklers provide good value for money.
7. Cost effective – Sprinklers are not expensive, costing around 1-2% of the cost of construction (less than estate agents fees in many cases). The use of sprinklers will allow design freedoms and Warwickshire Fire and Rescue Service will work with developers to actively look for reductions in construction costs and improve usability of the buildings, potentially making their fitting cost neutral.
8. Reliable – Records show that the chance of finding a faulty head is about 1:16,000,000. You have more chance of winning the lottery.

9. Work individually – Each sprinkler head is individually triggered by the heat from fire and initially just one head operates, which in many cases is sufficient to extinguish the fire alone. Typically just 60 litres of water is needed to control the fire because it is detected so early.
10. Uses less water – Sprinkler use less water than the fire service because it tackles the fire immediately when it is much smaller. Within 10 minutes (our best response standard) a fire can be out of control. A fire sprinkler uses between 1/25th and 1/100th of the water used by each fire service hose. Water damage is minimal.

Installation

The process of installation is similar to putting in central heating but with much less pipework and less disruption. Ideally this should be done during construction.

An adequate water supply of reliable water is needed for a sprinkler system. This can normally be obtained from the mains but in some cases may need to be stored on site.

Assistance from Warwickshire Fire and Rescue Service

We have close contacts with industry experts who can provide technical specifications and costs.

We will consider ways in which we can keep development costs low or cost neutral by seeking reductions in other ways e.g. extending the distances between fire hydrants where sprinklers have been fitted to housing sites.

We will encourage the use of sprinklers in all residential properties but especially social housing, houses in multiple occupation and large residential developments of more than 500 homes.

If you need to speak to someone for further advice please call 01926 423231, asking for Fire Protection or go the website **www.warwickshire.gov.uk/fireandrescue**

Area Commander Greg Pace – Organisational Risk Management

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