

FIRE AND RESCUE SERVICE WATER PROVISION FOR COMMERCIAL AND DOMESTIC NEW BUILDS A GUIDE FOR PLANNERS AND DEVELOPERS

making Lancashire safer

Introduction

Lancashire Fire and Rescue Service (LFRS) is fully committed to achieving and maintaining the highest standards of fire safety and emergency response across the county, which includes the ability for firefighters to quickly identify and effectively access water provision essential for ensuring effective firefighting operations.

When a planning application is submitted to the Local Authority Planning Department, LFRS where relevant, should be consulted to make comment on the appropriate fire service requirements for the application.

When a planning application is submitted to the Local Authority Planning Department, Lancashire Fire and Rescue Service (LFRS) where relevant, should be consulted to make comment on the appropriate fire service requirements for the application.

This document has been designed to provide the requirements and recommendations of LFRS and is designed to provide general information and guidance in relation to your application.

However, in some circumstances the minimum requirements of the building regulations may not be sufficient to meet the fire risk profile of the building (i.e. where the Regulatory Reform (Fire Safety Order) 2005 applies).

It is therefore important that the advice contained within this document is built into the project at an early stage including the design, installation and cost of hydrant provision as part of any development.

Dependent upon the type and size of the project our advice will concentrate on the following areas;

- **1. Access and Facilities for the Fire Service**
- 2. Water Supplies for Firefighting
- 3. Battery Energy Storage Systems (BESS)
- 4. Regulatory Reform (Fire Safety Order) 2005
- 5. Goodwill Advice (inc. Housing Developments)

1. Access and Facilities for the Fire Service

Building Regulations 2010 Approved Document B, states there should be access for a pumping appliance to within 45m of all points within any dwelling house to allow standard quick response hose reels to be utilised without the necessity for extending them, which would add valuable time to firefighting operations.

As the role of Fire and Rescue Services becomes more diverse, the amount of equipment required increases, the size of the fire appliance has also increased.

Access roads may be public highways, private roads, footpaths or specially strengthened and defined routes through the land surrounding the buildings, with minimum access requirements for access arrangements are shown in this section and are taken from the Building Regulations 2010 Approved Document B where applicable.

Consultation must take place with the Fire Authority during the early planning stages of any development or event to ensure adequate access. Applications must take account not only the access and working space requirements of standard fire appliances, but also specialist firefighting appliances with higher reach capacity such as Aerial Ladder Platforms (ALPs).

Access arrangements provided in this document should be considered when the designs of new developments are being planned. Failure to do so may prevent the applicant from obtaining a completion certificate under the Building Regulations, but more importantly, the lives of the occupiers will be put at risk.

Road Width

This dimension allows enough space for appliances to pass unhindered to the affected building accounting for the likelihood of parked vehicles. This also allows enough space around the vehicle to remove equipment quickly and efficiently from the appliance.

Gateway Width

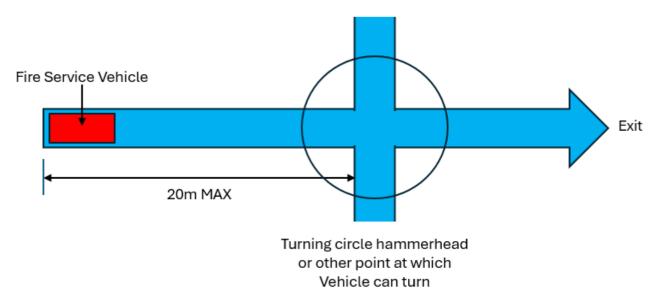
The gateway dimension allows the new appliances which have a width of approximately 2.9m adequate clearance to enter a premises.

Turning Circle

Fire Service vehicles should not have to reverse more than 20m from the end of an access road. A turning facility will be required for any dead-end situation, where without this provision a fire appliance would be required to reverse more than 20m.

One of the main concerns for Fire and Rescue Services would be the time taken

to manoeuvre fire appliances if suitable turning facilities are not available. This situation would be compounded further where lengthy dead-end situations occur.



Height Clearance

This clearance allows fire appliances to manoeuvre under overhead obstructions such as archways, barriers and gateways. Consideration should also be taken where overhead obstructions such as cables and branches that line access routes may impinge on this required clearance.

Carrying Capacity

All roads that form part of the access arrangements for Fire and Rescue Service vehicles should be constructed to withstand a minimum weight of 16 tonne. This capacity takes into consideration the specification for new appliances.

a) Domestic Dwelling Houses

Vehicle access for a pumping appliance should be within 45m reach to the furthest point in the dwelling and measured from the rear of the fire appliance along a suitable hose laying path.

Every elevation to which vehicle access is provided should have a suitable door, not less than 750mm wide, giving access to the interior of the building.

b) Flats or Maisonettes

Vehicle access for a pumping appliance should be within 45m reach to the furthest point in the dwelling and measured from the rear of the fire appliance along a suitable hose laying path.

c) Other Buildings

The access requirements for other buildings will depend upon the total floor area and the height. (*Further detailed guidance contained in Approved Document B Volume 2 - 2019 edition, Section 15: Vehicle Access.*)

d) Buildings with Dry Risers

Building that have a Dry Riser installed should have access for a pumping appliance within 18m of all riser inlet boxes.

Domuiromont	Appliance Type		
Requirement	Pump	High Reach	
Minimum Width of Road Between Kerbs	3.7m	3.7m	
Minimum Width of Gateways	of Gateways 3.1m		
Minimum Turning Circle Between Kerbs	16.8m	26.0m	
Minimum Turning Circle Between Walls	19.2m	29.0m	
Minimum Clearance Height	3.7m	4.0m	
Minimum Carrying Capacity	12.5t	17.0t	

 Table 1: Typical Fire and Rescue Service route access specifications

Vehicle Type	Width	Height	Length	Weight
Fire Appliance	2.5m	3.5m	8.4m	18t
Aerial Ladder Platform (ALP)	2.5m	3.7m	10.3m	26t
Other Specialist Vehicles	2.6m	4.0m	10.6m	26t

 Table 2: Lancashire Fire and Rescue Service appliance specifications

2. Water Supplies for Firefighting

Fire-fighting water may be supplied by way of a fire hydrant system, dedicated fire-fighting water static storage, or via an open source.

Fire Hydrants

Underground hydrants are recommended, and it is recommended that they be sited in the footpath or grass margin adjoining the roadway near the kerb. Siting of underground fire hydrants in roadways and/or parking areas should be avoided where possible.



FH1 Hydrant

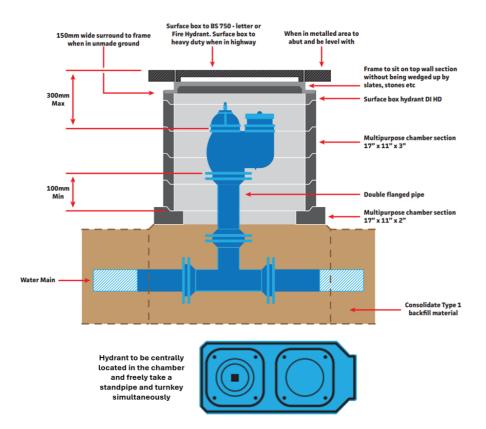
Hydrant Types Available

Through Bore

Where siting in a roadway is necessary, the frame and cover shall be in accordance with BS 750:2012 and capable of bearing the heaviest vehicle anticipated to use the roadway. Where a hydrant is sited in grass verges, the surface box and concrete surround shall be above the level of the adjoining surface.

Hydrant outlets shall be not greater than 300 mm below finished ground level. The top of the false spindle shall be between 75 mm and 225 mm beneath the finished ground level. Plastic or nylon outlets on fire hydrants are **NOT** acceptable as per section 5.1 and 5.2 of BS 750:2012

Fire Hydrant covers used on Fire Hydrant installations shall display the initials 'FH' or words 'Fire Hydrant' and shall be placed centrally over the hydrant to permit freedom of affixing standpipe and operating key simultaneously.



Example of standard Fire Hydrant set up required

LFRS understand that there is the potential for changes to be made to initial plans submitted during the construction phase of new developments. All significant changes should be forwarded to the LFRS Water Team as soon as possible, including if the surround of the asset is to be changed.

However, should an asset be moved by 5m or less and remains with the same surround as initially agreed (e.g. moved hydrant remains in footpath and hasn't subsequently moved into the roadway) notification isn't required.

Fire Hydrant Specification for adoption, maintenance, repair and/or replacement

Before the LFRS Water Team will authorise the payment of Fire Hydrants as part of adoption, maintenance, repair and/or replacement, they must conform to the following specifications;

- **1.** The hydrant pit must be clean and clear down to the hydrant tee flange.
- 2. The hydrant outlet must be undamaged and must not be deeper than 300mm and more than 100mm from the surface (see *Example of standard Fire Hydrant set up required*).
- 3. The hydrant outlet must have a dirt cap fitted

- **4.** The hydrant must be central within the pit to allow the simultaneous use of LFRS issued hydrant standpipe and operating key and
- 5. The hydrant must operate and provide water as required.
- 6. The hydrant should provide an adequate flow of water as deemed so by Lancashire Fire and Rescue Service.
- 7. The hydrant lid must be undamaged and bear the initials FH or wording Fire Hydrant
- 8. The surface around the hydrant lid box must be left clean, level and without trip hazards.
- 9. The frost/ drain plug (if visible) should function correctly

Failure to adhere to the points detailed is likely to result in non-acceptance by Lancashire Fire and Rescue Service.

Lancashire Fire and Rescue Service WILL NOT pay for the adoption of washout hydrants for firefighting purposes included within plans at the point of initial consultation.

Recommended Minimum Flow Rates of Fire Hydrants

The Local Government Association (LGA) / Water UK National Guidance Document (4th Versions 2024) provides the following flows, which represent the ideal requirements for new developments, infrastructure changes, and when the use of a building changes.

In some locations the existing distribution system will not allow the delivery of such flows. In these cases, developers and should engage with the local Fire and Rescue Service to come to an agreement that meets the need for firefighting including the use of fire suppression systems etc.

Note: LFRS recognises that Water Companies have no obligation to meet ideal requirements.

Flow Rates are provided in Litres per Second (LPS) and Litres per Minute (LPM)

1. Residential (Dwellings)

Minimum of 10 LPS / 600 LPM for;

- A Dwelling up to 3 Storey townhouse.
- Residential Flats below 18m to highest occupied floor.

Minimum of 25 LPS / 1500 LPM for;

• Residential Flats below 18m to highest occupied floor with Dry Riser required due to access provision.

• Residential Flats above 18m to highest occupied floor.

2. Residential (Institutional)

Minimum of **14 LPS / 840 LPM** for Hospitals, homes, schools or other similar establishment, where people sleep on the (institutional) premises including;

Living accommodation for, or accommodation for the treatment, care or maintenance of, either:

• Disabled people with a range of impairments including physical, sensory and cognitive impairments, or mental health conditions

- People under the age of 5 years
- A place of lawful detention.

3. Residential (Other)

Minimum of **14 LPS / 840 LPM** for Hotels, boarding houses, residential colleges, hall of residence, hostels or any other (other) residential purpose not described above.

4. Office

Minimum of **14 LPS / 840 LPM** for Offices or premises used for any of the following and their control:

Administration

• Clerical work (including writing, bookkeeping, sorting papers, filing, typing, duplicating, machine calculating, drawing and the editorial preparation of matter for publication, police and fire and rescue service work)

- Handling money (including banking and building society work)
- Communications (including postal, telegraph and radio communications)
- · Radio, television, film, audio or video recording
- Performance (premises not open to the public)

5. Shop and Commercial

Minimum of **14 LPS / 840 LPM** for Shops or premises used for either of the following:

• A retail trade or business (including selling food or drink to the public for immediate consumption.

- Retail by auction, self-selection and over-the-counter wholesale trading,
- The business of lending books or periodicals for gain
- The business of a barber or hairdresser
- The rental of storage space to the public.
- Premises to which the public are invited either:

- to deliver or collect goods in connection with their hire, repair or other treatment

- (except in the case of repair of motor vehicles) where the public themselves may carry out such repairs or other treatments.

6. Assembly and Recreation

Minimum of **14 LPS / 840 LPM** for Places of assembly, entertainment or recreation, including any of the following:

- · Bingo halls and casinos, dance halls
- · Broadcasting, recording and film studios open to the public
- Dance halls
- Entertainment, conference, exhibition and leisure centres
- Funfairs and amusement arcades
- Museums and art galleries,
- · Non-residential clubs, theatres, cinemas, concert halls
- Educational establishments, dancing schools, gymnasia, swimming pool
- buildings, riding schools, skating rinks, sports pavilions, sports stadia • Law courts
- Churches and other buildings of worship, crematoria
- Libraries open to the public, non-residential day centres, clinics, health centres and surgeries
- Passenger stations and termini for air, rail, road or sea travel
- Public toilets
- Zoos and menageries.

7. Industrial Buildings

Minimum of **25 LPS / 1500 LPM (per 900m²)** for Factories and other premises used for any of the following:

• Manufacturing, altering, repairing, cleaning, washing, breaking up, adapting or processing any article

Generating power

• Slaughtering livestock.

8. Industrial Estates

- Up to one hectare or 10,000m² Minimum of 67 LPS / 4020 LPM
- One to two hectares or 10,000m² 20,000m² Minimum of 77 LPS / 4620 LPM
- Two to three hectares or 20,000m² 30,000m² Minimum of 85 LPS / 5100 LPM
- Three to four hectares or 30,000m² 40,000m² Minimum of 87 LPS / 5220 LPM
- Over four hectares or over 40,000m² Minimum of 100 LPS / 6000 LPM

9. Storage Buildings and Car Parks

Minimum of 25 LPS / 1500 LPM (per 900m²)

10. Firefighting Stair

Minimum of 25 LPS / 1500 LPM (per 900m²)

11. Mixed Usage Buildings

Minimum of 25 LPS / 1500 LPM

12. Transportation Hubs (Bus / Train Stations)

Minimum of 14 LPS / 840 LPM

A building requires additional hydrants if both the following apply;

- The building has a compartment of 280m² or more in area in area
- There is no existing fire hydrant within 100m to the entrance of the building(s).

If additional hydrants are required, these should be provided in accordance with the following.

- For buildings provided with fire mains within 90m of dry fire main inlets.
- For buildings not provided with fire mains hydrants should be both of the following.
 - **1.** Within 90m of an entrance to the building.
 - 2. A maximum of 90m apart.

Failure to comply with this requirement may prevent the applicant from obtaining a final certificate.

For all domestic properties, Lancashire Fire and Rescue Service recommend that developers provide a hydrant within 100m of a property. If there is no hydrant provision within a 100m and any subsequent hydrants installed thereafter should be a maximum of 100m apart.

Alternative Water Supplies

An alternative source of water supply should be provided where any of the following apply.

- No piped water supply is available.
- Pressure and flow in the water main are insufficient.
- An alternative source of supply is proposed.

The alternative source of water supply should be one of the following, subject to consultation with Lancashire Fire and Rescue Service;

- A. A charged static water tank with a minimum capacity of 45,000 litres.
- **B.** A spring, river, canal or pond that can fulfill both of the following conditions.
 - 1. Always providing or storing a minimum of 45,000 litres of water.
 - 2. Providing access, space and a hard standing for a pumping appliance.
- C. Any other water supply that the local fire and rescue service considers appropriate

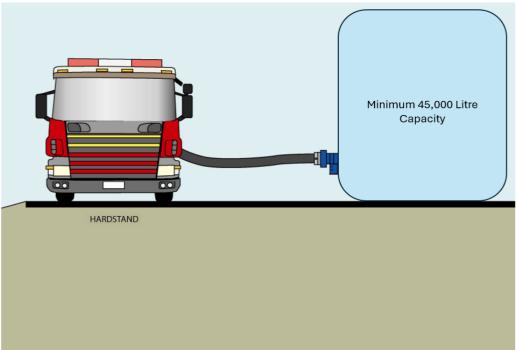
Above Ground Water Tanks

The base of the tank should be a minimum of 1m above the hard standing area to allow for gravity discharge of the tank into the pumping appliance.

100 mm diameter screw (hard suction) female connection to be provided at the base of the static storage tank with independent hand lever isolation valves. These shall be provided on the fire appliance access side of the tank.



Examples of 100mm Female Hard Suction Coupling Connector with isolation valve



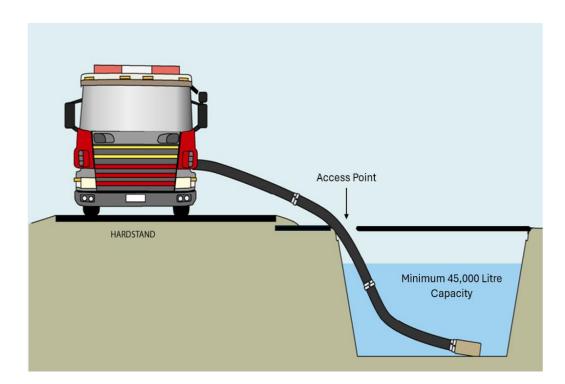
Example of an Above Ground Water Tank

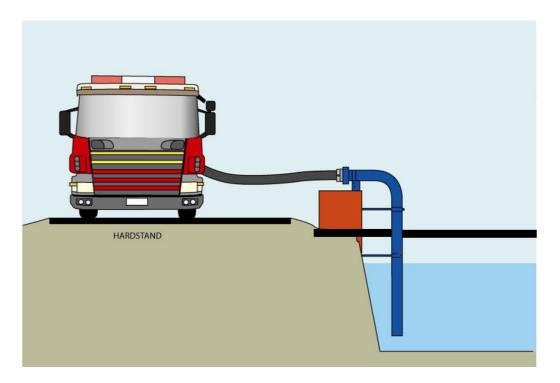
Below Ground Water Tanks

Fire tender access shall be provided to within 5m of the tank outlet / access manhole. Fire service access to the tank shall be either:

a. A manhole cover measuring or,

b. A permanent upstand 100 mm diameter dry suction pipe with 100 mm diameter screw (hard suction) female connection provided





Examples of Below Ground Tanks

Open Water Supply

Where applicable, an open water source such as a pond, stream, river or dams may be considered as an alternative firefighting water supply. These may either have a fixed suction pick up fitted with an approved coupling or allow direct access for fire service pumping equipment within a maximum of 5 metres of the water's edge.

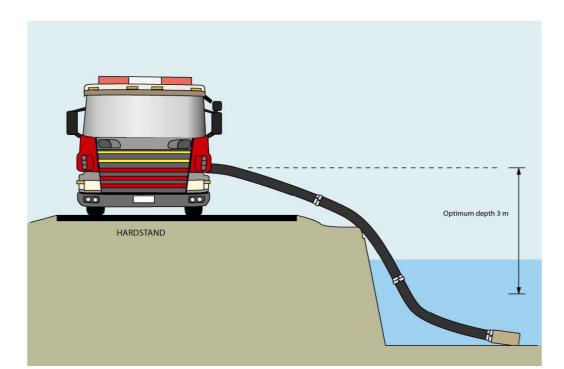
Access Fire service access may be either by:

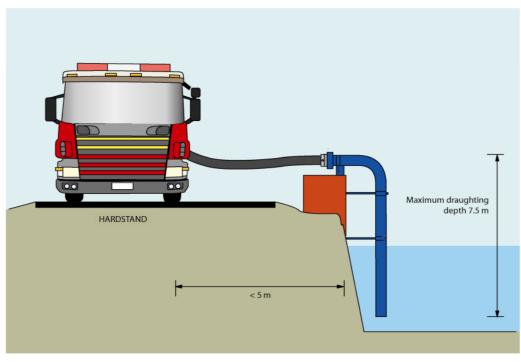
a. Pumping equipment access to within 5 m of the water's edge. Pond, stream, river or dams must have a safe working platform at the water's edge for firefighters to establish suction equipment. The preferred maximum lift from the water to the platform is no greater than 3 m. or.

b. Where it is not possible that a safe working platform be provided directly at the water's edge due to site restrictions, a permanent upstand 100 mm diameter

dry suction pipe feeding from the water source to the location of a safe working platform or hardstand for fire fighter access. The preferred maximum lift from the water to the platform is no greater than 3 m.

A 100 mm screw (hard suction) female connection, with blank cap attached to the flange by chain, at the fire service connection point of this pipe shall be not less than 300 mm above ground level.





Examples of Open Water Supplies

3. Battery Energy Storage Systems (BESS)

As the UK moves towards sustainable energy methods, there is an increase in new technologies involving the storage of electricity, including Battery Energy Storage Systems (BESS).

The UK Government has now published <u>Health and Safety Guidance</u> for grid scale electrical energy storage systems.

The guidance aims to improve the navigability of existing standards and provide a clearer understanding of relevant health and safety standards that the grid scale electrical energy storage systems (EESS) industry, which includes lithiumion batteries, can apply to its own process(es).

The National Fire Chiefs Council(NFCC) has produced guidance for Fire and Rescue Services which gives recommendations on <u>Grid Scale Battery Energy</u> <u>Storage System Planning</u>.

This guidance is based upon a range of supporting materials including academic research, national and international standards, case studies and industry guidance. It relates specifically to grid scale (typically 1 MW or larger) BESS in open air environments, using lithium-ion batteries.

Whilst Lancashire Fire and Rescue Service (LFRS) is not a statutory consultee as part of the Local Authority planning process, the National Fire Chiefs Council encourages applicants and the local planning authority to have early engagement with the local Fire and Rescue Service, continuing throughout the planning process. This is outlined in the <u>government guidance on planning</u> for renewable and low carbon energy

LFRS would expect that any pre consultation sent to us, outlines in the first instance how your proposed site meets the expectations of this guidance document. Once you have considered this document, and provided us with a detailed response, this will enable Lancashire Fire and Rescue Service to consult on your proposal.

The LFRSs expectation is that a comprehensive risk management process is undertaken by operators to identify hazards and risks specific to the facility and develop, implement, maintain, and review risk controls. From this process a robust Emergency Response Plan should be developed.

With early engagement and advice using the guidance, the risks posed to people, property and the environment can be planned for by you and control measures can be put in place to minimise disruption and harm to people, property and the environment.

Please email any queries or consultations regarding Grid Scale Battery Energy Storage Systems that are proposed to be or are in Lancashire, to <u>protectionsupport@lancsfirerescue.org.uk</u>.

4. Regulatory Reform (Fire Safety) Order 2005

The Regulatory Reform (Fire Safety) Order 2005 applies to all premises apart from single private dwellings.

Once the buildings are in use, they become subject to the Fire Safety Order, imposing requirements that may be additional to those of the Building Regulations.

General Guidance:

General Fire Precautions

The Responsible Person must take such General Fire Precautions that will ensure, so far as is reasonably practicable, the safety of their employees and relevant persons who are not their employees.

The term 'General Fire Precautions' means:

- Measures to reduce or eliminate the risk of fire on the premises and the risk of the spread of fire on the premises.
- The provision of suitable means for detecting and giving warning of a fire on the premises.
- The provision of suitable means of escape from the premises.
- Measures for ensuring that the means of escape can always be safely and effectively used.
- The provision of suitable and adequate firefighting equipment.
- Measures for ensuring the maintenance and testing of fire precautions and equipment.
- The provision of suitable arrangements for the action to be taken in the event of a fire including:
 - a. Instruction and training for employees.
 - b. Measures to mitigate the effects of a fire.

Fire Risk Assessment

The Responsible Person must carry out a suitable and sufficient assessment of the risks to which persons are exposed to, for the purposes of identifying the general fire precautions measures to be taken in order to comply with 'the Order'.

A series of guidance booklets have been published by Central Government to assist Responsible People with this process, and thesecan be downloaded from the following web links: -

www.gov.uk/workplace-fire-safety-your-responsibilities

Particular attention should also be paid to the following advice:

Holiday Let and Guest House Accommodation

If the proposed use of the premises is as a Holiday Let or Guest Accommodation, then the premises would fall within the scope of The Regulatory Reform (Fire Safety) Order and as such may require additional fire precautions to be incorporated into the design of the building.

Although this issue will be dealt with at the Building Regulations stage of the development, LFRS advise that early consideration is given to this matter.

Approved Document B Volume 1 - 2019 edition or the Government Paying Guest Fire Safety Guidance provides more information and can be downloaded from the following web links: -

www.gov.uk/government/publications/fire-safety-approved-document-b

www.gov.uk/government/publications/do-you-have-paying-guests

Applicants are also advised to take into consideration goodwill advice contained within this document, which may go some way to alleviating any issues that may arise.

5.Goodwill Advice

Safeguarding people from the danger of fire in their homes and places of work is an emotive subject and unfortunately Lancashire Fire and Rescue Service (LFRS) experience the consequences of the failure to do this effectively on a regular basis.

Generally, through the application of approved guidance documents and the enforcement of regulations, it is reasonable to assume that acceptable levels of fire safety within Lancashire are being provided.

However, there are some factors, particularly at the planning stage, where the minimum standards fall short of what LFRS considers adequate.

Common areas of concern are:

- Planning applications in some rural areas where the response timeof the nearest fire appliance can be up to 20 minutes.
- Buildings where the ability of the occupants to respond to the effects of fire and successfully evacuate is compromised by their circumstances (i.e. restricted mobility, etc.).
- Access and facilities for the fire service requirements cannot be adequately met.
- The risk profile of the building will be unknown until occupationhas taken place.
- Planning and building control do not talk to each other where they are linked to each other as one authority i.e. local authority buildingcontrol and planning authority.

In circumstances where the above areas of concern exist, LFRS recommends the installation of an automatic water fire suppression system, i.e. automatic sprinkler system.



An example of a commercial automatic water fire suppression system, (left), and a concealed residential automatic water fire suppression system (right).

Automatic Water Fire Suppression Systems (AWSS) – Facts and Figures

Effective

Automatic Water Fire Suppression Systems (AWFSS) are by far the most efficient and effective safety devices available, having a better than 97% success rate world-wide.

Life Safety Record

In the UK, statistics show that there has never been a multiple loss of lifein a building with an AWFSS fully installed.

Early Alarm

More than 50% of all fire casualties are either young, old or physically incapacitated. In conjunction with smoke alarms, AWFSS sound the alarm when they are activated, so they increase the time people have to escape or be rescued.

Inexpensive

A residential AWFSS costs less than 2% of an average cost of a new house.

Reliable

They are designed to last for 50 years and the chance of accidental operation, due to manufacturers' defects, in service is one in sixteen million.

Operation

Each sprinkler head is individually triggered by the heat of the fire and the system will contain and control the spread of fire long before the Fire and Rescue Service is called. Only the sprinkler head(s) nearest to the fire are activated - **NOT** all of them.

Limited Water Damage

AWFSS use much less water than the Fire and Rescue Service. Because the system tackles the fire immediately, it only has a small fire to deal with. In the event of a fire, the use of AWFSS will help minimise water damage.

Easy Installation

Modern residential AWFSS are small, neat and unobtrusive and visitors are seldom able to spot them – concealed versions are now available.

Construction Trade-Offs

Proposals should be discussed with the building control body and Fire and Rescue Service at the earliest opportunity.

Environmental Impact

AWFSS can reduce greenhouse gas emissions by up to 98% and can also reduce fire damage, which ultimately means that less fire damaged materials go to landfill sites.

Where an AWFSS has been installed, there is less damage to the environment, both in respect of the products of combustion released into the atmosphere and the volume of contaminated water generated from firefighting.

Furthermore, in this challenging economic environment, mitigating loss would be far more prudent than paying for and replacing damaged properties.

Communities and Local Government already recognises the value of AWFSS in significantly reducing damage to property from fire, the saving of lives and reducing injuries.

Lancashire as a county has large rural areas and Lancashire Fire and Rescue Service response times to some areas of our county can be up to 20 minutes. Therefore, we would strongly recommend that AWFSS is properly considered as part of this planning proposal for homes within Lancashire.

Further guidance on residential (AWFSS) can be obtained by contacting:

The British Automatic Fire Sprinkler Association Ltd Telephone: 01353 659 187 Website: www.bafsa.org.uk

Housing Developments

With reference to planning applications for housing developments, (usually 5 or more properties on the development) the following advice should be noted:

During the early stages of the planning process the identification of a suitable road infrastructure around the county will help in allowing the Fire Service to gain access to any property as and when required and should be considered as an integral part of any planning application for housing.

Councils within Lancashire have identified that a common need for all areas of the County is investment in housing, including affordable and social housing and this remains an area that is identified as priority for most of the County's cities, towns and villages.

Any commitment to housing developments should be low carbon, sustainable and energy efficient, consistent with Government policy on climate change, the environment and sustainability. In some instances, these houses are likely to be occupied by some of those in our society most at risk to the effects of fire and as such we believe a unique opportunity presents itself.

By incorporating an AWFSS into the design and subsequent construction, we can ensure new homes are not only consistent with Government policy but also safe for their occupants.

In addition to reducing fire risk amongst some of the most vulnerable members of society, we would like to take this opportunity to draw your attention to further benefits that would arise should these new houses be constructed with an AWFSS installed.

It is estimated that fires in the United Kingdom release over two million tons of carbon dioxide into the atmosphere every year. This is excluding further emissions resulting from constructing replacement buildings and in recycling the fire damaged material

Where Can I Go For Help?

If you require further guidance on the contents of this booklet, please contact your nearest Technical Fire Safety Office:



Eastern Area: firesafetyeastern@lancsfirerescue.org.uk

Central and Southern Area:

firesafetycentralandsouthern@lancsfirerescue.org.uk

Firesafetypennine@lancsfirerescue.org.uk

Western Area:

firesafetywestern@lancsfirerescue.org.uk

Hydrant and Firefighting Water Supplies water@lancsfirerescue.org.uk



Lancashire Fire and Rescue Service Garstang Road Fulwood Preston Lancashire PR2 3LH

Telephone: 01772 862545 Website: <u>www.lancsfirerescue.org.uk</u>

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