



Domestic & Residential Sprinkler Systems

The Challenge

Crocus Grove, Peterborough

When FE Peacock Construction Ltd were commissioned to build three houses by Nene Housing Association, the Local Fire Authorities and Building Control Department raised serious issues regarding the narrow access route to the houses.

To make matters worse, access to the opposite side of the houses was restricted by a Cycle Path. In the event of a fire, neither access route was accessible by Fire Brigade vehicles.

With this in mind, a feasibility study was conducted into the cost of widening the access road, re-developing the Cycle Path to gain access or installing Residential Sprinklers within the houses.

Of the three options investigated, the installation of a sprinkler system within the three homes proved to be the most cost effective solution. Having worked in partnership with Tyco Fire & Integrated Systems on a number of projects, FE Peacock Construction Ltd invited them to design and install an approved automatic sprinkler system.

Concealed sprinkler heads were fitted into the distribution pipework and are barely visible against the white ceilings. In the event of a fire, the sprinkler concealment plate is designed to fall away at 57oC and the sprinkler head will operate when it reaches a temperature of 68oC.

Forgewood Estate , Motherwell - Scotland

The Forgewood houses feature a sprinkler system fitted in all rooms including the roof space. The sprinklers heads are inconspicuous and are finished in a complimentary brass colour.

The system in each house is fed from the domestic water supply to the house through a sprinkler control box containing:

- Stop valve to enable the water supply to be turned off for maintenance.
- Water flow alarm switch to raise an alarm in the event of a fire.
- Test valve to enable the water supply to be tested.
- Pressure gauge to indicate the water supply pressure available.
- Electrical power to the alarm system
- Door interlock with supply stop valve. The door cannot be closed unless the water supply is switched on.
- An external audible alarm is fitted with sounder, flashing light and battery support in case of mains failure.



Houses of Multiple Occupancy, Newhaven

This privately owned Victorian style town house was modified with additional bedrooms to form a dormer roof multiple occupancy dwelling. A sprinkler system utilising CPVC pipework was installed throughout the dwelling.

A control panel housing a control valve, water flow alarm switch for the fire alarm and the electrical supply achieves system control. The external electronic alarm features standby battery supply and alarm period termination timer, with suitable provision for external Central Station Monitoring Connection, if required.



location and the time taken for the fire brigade to arrive at the cottage from receipt of the initial alarm.

With this in mind, the owner contacted Tyco Fire & Integrated Solutions to install a sprinkler system with a monitored sprinkler alarm connection to the local fire brigade.

The installation took place during the owner's renovation programme to minimise disruption. The system obtains its water from the domestic water supply system supplied to the dwelling.

National Trust, Coleridge Cottage

In 1996 Tyco Fire & Integrated Solutions installed a sprinkler system in this valued treasure of a house constructed over 400 Years ago.

Step by step discussion and co-operation with the National Trust and associated parties resulted in great satisfaction to all concerned.

The system has a self-contained water supply which provides ten minutes of fire protection with an automatic alarm link directly to the fire brigade.

The Vicarage, Salisbury Diocese

This Vicarage in the Diocese of Salisbury is fully protected by a domestic sprinkler system using sprinkler heads specifically designed for domestic fire loads.

The sprinkler heads have a fusible element which releases water when subjected to specific temperatures. As with all sprinkler systems, each head activates independently so that water is restricted to the area affected by the fire. The small amount of water used does not significantly add to damage already created by heat or smoke. The system takes its water supply from the domestic supply through a compact control panel located in the cloak cupboard.



The Deerkeepers Cottage, Warwickshire

This privately owned residence is situated in the middle of a Golf Course located in the heart of the Warwickshire Countryside. The owner of this listed building was concerned that it could be seriously damaged or destroyed in the event of a fire due to its isolated



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