



PROJECT
Fairview Court

LOCATION
Pontypool, South Wales

INDUSTRY SECTOR
Residential

PARTNERS
Pentan Partnership
Welsh Assembly
Government

SOLUTIONS
Residential Sprinklers

BENEFITS
• Life safety in a tall building
and reduced consequential
losses

PRODUCTS
Residential Sprinklers

THE CHALLENGE

Fairview Court was Pentan Partnership's first project for Cwmbran-based Bron Afon Community Housing. It is a 1960's twelve storey, residential tower block. The principle objective of the project was to completely refurbish and upgrade to modern-day thermal standards. The building had also been extended with the addition of a roof top pavilion, or sky lounge, which provides a light and airy meeting place for the residents.

“twelve storey
residential
tower block”

The lounge has solar thermal panels mounted on its roof plus there are electricity generating panels incorporated into its new facades. These panels are also used to shade south facing windows and add to the positive upgrading of the tower block environmental footprint.

In addition to these eco friendly enhancements, the objectives also included upgrading fire protection measures within Fairview Court. The block is one of the first high rise projects to benefit from the Welsh Assembly's decision to install fire sprinklers in refurbished residential buildings. Each floor within the tower block has six flats. The residents were a broad mix of age groups and all were housing association tenants.



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THE SOLUTION

Early on it was decided that at each floor level, the main pipe feed would be split into two – one to serve the flats and the other to serve the common areas.

To assist with the aesthetic appeal of the additional equipment to be installed within the common areas, lowered suspended ceilings were provided to conceal services such as the fire sprinkler pipework and concealed sprinkler heads that were fitted. In the top floor sky lounge, the roof void was used in a similar fashion.

Careful planning of pipe routes within the flats was a key consideration and pipework in each apartment was mounted tightly along the hallway and kitchen walls. This was painted to blend with the surrounding decor. Vipond has extensive experience of working in many building types and providing solutions that are appealing to customers. The pipe routes selected in both the common areas and within the flats reflect this experience. As a result, the sprinkler distribution pipe network is very unobtrusive. For instance, the branch pipes feeding the bedroom and lounge only needed a very short length leading to the sidewall pattern sprinklers in these rooms. The sprinkler heads in the kitchen and hallway are also sidewalls removing the need for pipes to cut across ceilings.

The sprinkler systems in all twelve floors were provided for by twin pumps and full capacity tank. An inlet breaching valve connection provided the facility for the fire and rescue service to connect directly to the system thus potentially extending the duration of discharge beyond the requirements of the standards if needed.

THE OUTCOME

Uncontrolled fires can be devastating in any situation and have the potential to be catastrophic within the confines of an occupied tower block. With a significant proportion of elderly residents present, the prospects of a safe evacuation are greatly enhanced by the installation of a fire sprinkler system.

The sprinkler system provides the fire service with a bespoke life safety solution designed specifically for the building concerned and to exacting standards. It enables an orderly evacuation of a tall building without the additional resources which would be needed in such a structure. It not only protects the occupants but safeguards the building structure and surrounding buildings by containing and then controlling any outbreak of fire, virtually as soon as it occurs. It is a recognised fact that buildings with sprinkler systems used vastly reduced volumes of water to fight fires than would otherwise be needed.

Other than the obvious human safety element, should a fire occur, the cost savings to the community can be realised by the reduced consequential losses that would be seen with the addition of a fire sprinkler system.

“careful planning of pipe routes was a key consideration”



COMPANY PROFILE

Vipond Fire Protection Ltd has its roots going back to 1969, when it was started as a small family owned business. In 1998 it was acquired by Vipond Inc of Canada. The company has since expanded and grown and now has 5 offices covering the whole of the UK and Ireland. Vipond Fire Protection Ltd is ultimately owned by API Group Inc.

APi Group Inc. is a multi-billion-dollar parent company for 38 independently managed construction companies in more than 200 locations worldwide. APi Group combines the personal attention of small-to-medium sized construction companies with the strength of a global industry leader to build a safer environment, develop leaders and bring innovation to the construction and fire protection and suppression industry. Since 1926, APi Group has grown by acquisition to become the stellar multi-billion-dollar company it is today.

The secret? Our subsidiaries maintain who they are. They keep the identity, reputation, customer relationships and culture they've worked hard to establish.

APi Group's subsidiaries have collectively served customers on all continents, including Antarctica.

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