

Grosvenor Waterside

**Project name:**

Grosvenor Waterside

Project type:

New build – residential

Client:

St James Urban Living

Architect:

Sheppard Robson (other architects involved with the development include Make Architects, Finlay Harper and Twigg Brown)

Service(s) provided:

- Design, supply and installation of:
 - Fan Assisted System
 - Impulse car park ventilation system
 - Environmental heat removal system

Situated around the historic dock just north of Chelsea Bridge, Grosvenor Waterside is a landmark residential development that comprises a series of exclusive apartments.

The new mixed use scheme provides over 600 studio, one, two and three bedroom apartments, and single and two storey penthouses with a range of amenities and services including fitness centre, spa, restaurant, retail suite, concierge and security services, and private underground parking. Surrounded by the picturesque scenery of tree lined promenades, the river and a city skyline, it is a prestigious place to be.

Fire Design Solutions designed, supplied and installed a comprehensive turnkey fire safety package. This included the company's Fan Assisted Smoke Venting System (FAS) and impulse car park ventilation system.

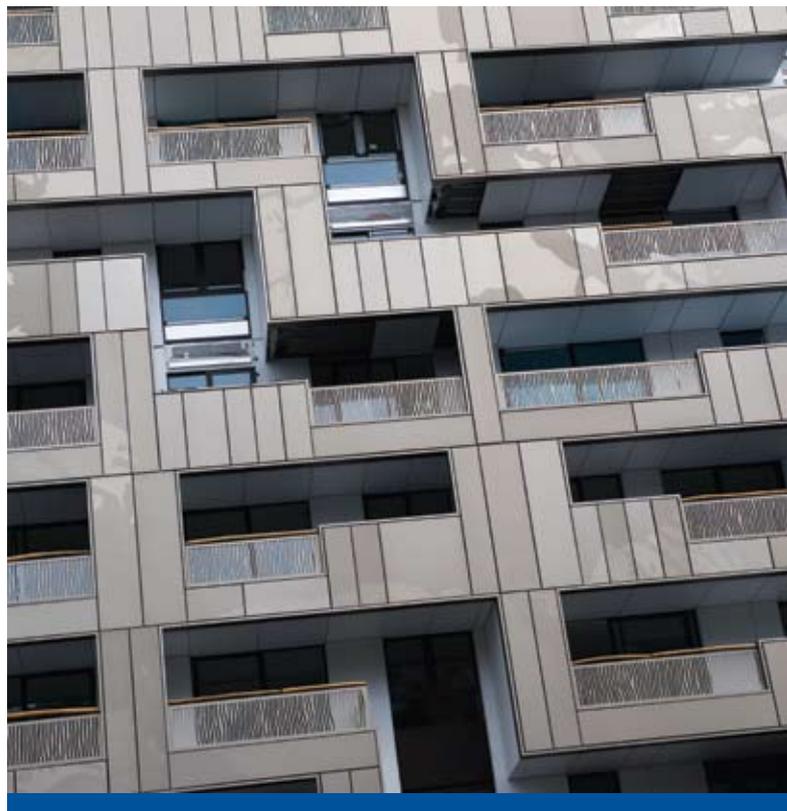


Faced with a short timescale, Fire Design Solutions rationalised the original design on one of the blocks, using the existing 1.5m² natural smoke shafts as the basis for the FAS, which was more cost effective. On other blocks, the engineered system's efficiency allowed the number of smoke shafts to be halved and achieved significant cost savings over a natural concept.

For maximum cost and area efficiency, the smoke shafts were also utilised to draw unwanted heat away from common corridors and other problem areas where common heating/hot water pipework can cause heat gain. Despite the number of services filling the ceiling void, Fire Design Solutions was still able to integrate volume control dampers (VCD) to complete the environmental heat removal system.

The vast 24 hour car park is ventilated by Fire Design Solutions' impulse ventilation system. With the first phase of the car park already designed and installed in 2003, prior to Fire Design Solutions' involvement on site, it now required a smoke control system that would meet the requirements of the new British Standard BS7346. Working closely with sister fire consultancy, FDS Consult, and Westminster Building Control, Fire Design Solutions used CFD modelling to develop a solution that justified the omission of sprinklers and overcame limited plant area.

Compliant with Approved Document F, Approved Document B and the London Building Act, the system uses CO detection for efficient day to day environmental control, with a heat detection system to trigger its rapid smoke purging capacity. It is a perfect demonstration of Fire Design Solutions' fully integrated service package – providing a complete fire safety solution from fire consultancy, through system design, to installation and beyond.



152/154 London Road, Greenhithe, Kent DA9 9JW

Tel: **+44 (0)1322 387411**

Fax: **+44 (0)1322 386361**

Email: info@firedesignsolutions.com

www.firedesignsolutions.com



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