


# Fire safety engineering



**We are fire strategy  
shapers, risk mitigators,  
building enhancers,  
compliance advisors,  
life protectors, system  
innovators and  
difference makers**



A low-angle photograph of a modern building facade. The building features a series of vertical panels in bright red and white, creating a rhythmic pattern. A dark, textured concrete or metal structure is in the foreground, partially obscuring the lower part of the building. The sky is a clear, pale blue.

# 75+

years' combined experience

Our fire safety engineering consultants have over 75 years' combined experience in delivering innovative, bespoke support across all sectors – both in the UK and internationally.

From bigger picture infrastructure consultancy and building safety auditing to the design and implementation of tailored protection systems, we can advise and support the installation of prevention, detection and evacuation solutions across any building or multi-site portfolio.

# Services



The St Botolph Building, London  
Image courtesy of Hufton+Crow



One Park Drive,  
Wood Wharf, London

## AREAS OF EXPERTISE

- Fire detection and alarm systems
- Smoke management and control
- Fire-fighting access and facilities
- Computer modelling
- Fire dynamics
- Sprinkler protection
- Occupant behaviour
- People movement
- Active fire-fighting systems
- Fire suppression systems
- Fire safety gateways
- Timber and CLT design
- Evacuation strategy

## Fire safety strategy

- ✓ Risk analysis
- ✓ Personal emergency evacuation plans (PEEP)
- ✓ Effective fire protection
- ✓ Means of warning and escape
- ✓ Access and facilities for fire-fighting
- ✓ Structural fire protection
- ✓ Special risk protection
- ✓ Internal and external fire spread
- ✓ Smoke management and control
- ✓ First aid fire-fighting
- ✓ Active fire-fighting systems
- ✓ CFD and evacuation modelling
- ✓ Due-diligence study
- ✓ Fire strategy drawings
- ✓ Fire safety management plans



Our team of fire safety specialists utilises the full range of engineering knowhow from across Sweco's international skills landscape.

We have the ability to draw on the expertise of global fire teams, with the UK experience to apply it against local laws and criteria. We can also offer functional building services and performance advice on the design of mechanical and electrical systems as well as vertical transportation systems, including advanced smoke detection and sprinkler protection.



One Nine Elms, London  
The Tower, One St George Wharf



Bloomberg London  
Image courtesy of Nigel Young & Foster + Partners

## Implementation & management

- ✓ Fire safety management
- ✓ Fire safety manuals
- ✓ Fire safety training
- ✓ System design
- ✓ Work permits
- ✓ Fire prevention

## Evaluation & audits


- ✓ Performance analysis
- ✓ Expert witness
- ✓ Inspection and commissioning
- ✓ Peer reviews
- ✓ Testing and site surveys
- ✓ Thermal radiation analysis
- ✓ Third party review

**Please note** that our Building Standards team also offers related solutions in building safety inspection and monitoring, building safety systems and associated regulatory advisory services.



# Our approach

Working closely with our wider multi-disciplinary teams (including structural engineers, façade specialists) and teams across Europe allows us to develop flexible proposals that satisfy every individual client requirement. We maximise the value of a scheme whilst maintaining robust levels of fire safety based on a sound understanding of all the competing issues involved. This includes access to expertise in mechanical and electrical engineering and specialists in energy modelling and vertical transportation.



Our core objective is to provide strategic fire safety advice and develop fire safety strategies that satisfy the functional requirements of the building regulations. We provide solutions that represent a mix of best-practice, expert judgement and innovative fire engineering technologies.

Southbank Tower, London

# Our expertise

## Fire safety strategy

The development of a clear and coherent fire strategy demands specialist knowledge in all the key fire safety elements. With unrivalled international insights and specialisms we are able to consider the dynamics of fire and smoke, the behaviour of occupants and the response of structural components to fire while also understanding fire-fighting practices and operational procedures. This appreciation is coupled with a thorough understanding of approved codes of practice and current engineering guidance together with UK and international legislation.

While you may be the owner, manager or 'Responsible Person' in a commercial premise, we understand that you may not have the time, confidence or competency to undertake a detailed audit. That's why we provide a tailored approach to each project, assisting both the client and design team in a full assessment, before collaborating on the required fire protection design and integration. Our early involvement in a project is key to limiting risk.

## Government fire safety gateways

We can provide early support for planning applications to meet the requirements of the HSE and other local government planning requirements. Our advice allows developers to present projects that meet the Gateway 1 fire safety requirements and through project development at Gateway 2 and 3.

## Risk management

We are highly experienced in the development of fire safety management strategies. We work closely with building owners and occupants to produce a regime that successfully balances the risk to occupants, the impact of active or passive fire-fighting systems and the capabilities of the building management team.

## Legislative frameworks

Legislation in fire strategy is an evolving area that is updated to reflect recent events. We are involved, where appropriate, in various consultations on any proposed legislation such as Part B, Schedule 1 of Building Regulations, The London Plan, Fire Safety Regulations and Fire Safety Order. We ensure the changes are presented to the clients and design team in way that easy to understand and deploy.



## Projects of note

- Alconbury School
- Barts Square
- Bloomberg London
- Canary Wharf's New District
- Centre Point
- Commercial Bank of Qatar
- Creechurch Place
- German Embassy
- Harrington Place
- Index (DIFC)
- Karlatornet
- King's Cross Central
- Lon1X0 Data Centre
- More London
- Norwich Castle
- One Nine Elms
- Oxford Brookes University
- Sixty London
- South Bank Tower
- Spinningfields
- The Bower
- The St Botolph Building
- The Tower, One St George Wharf
- The Walbrook Building
- The Willis Building
- The Zig Zag Building and Kings Gate
- Vantage Point
- Vauxhall Square
- Worswick Chambers
- 70 Mark Lane





## Selected clients

- Almacantar
- Argent
- AXA Real Estate
- Barratt Homes
- British Land
- Canary Wharf Contractors
- CIT
- Commercial Bank of Qatar
- Development Securities
- Essential Living
- Galliard Homes
- Helical
- Hilton Hotels
- King's Cross Central General Partner Limited
- Land Securities Properties
- Minerva
- More London Developments
- Native Land
- P&O
- R&F Properties
- Seaforth Land Ltd
- Selfridges
- Serneke
- St George South London
- Stanhope
- ThamesWey
- Union Properties
- University of East Anglia
- Vistry Group
- Wanda One (UK)



# Contacts

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