

Fire Safety & Engineering

Our team of professionally qualified and experienced engineers provides expert advice in all areas of fire safety across the entire spectrum of building design, construction and occupation.





Working closely across our professional team allows us to develop flexible proposals that satisfy client requirements, whilst allowing greater freedom in architectural design. 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.

Fire Safety & Engineering



- Fire Detection and Alarm Systems
- Smoke Management and Control
- Fire-Fighting Access and Facilities
- CFD Analysis
- Fire Dynamics
- Sprinkler Protection
- Occupant Behaviour
- People Movement
- Active Fire-Fighting Systems
- Fire Suppression System

What we do

Our core objective is to provide strategic fire safety advice and develop fire safety strategies that satisfy the functional requirements of the building regulations. Compliance may be achieved by adopting conventional guidance or by incorporating innovative fire engineering principles.

We provide solutions that represent a mix of best-practice, expert judgement and fire engineering. Our strategies satisfy the requirements of all key stakeholders. Our work is presented in a clear, concise manner. This ensures that the scheme is evaluated effectively by approving authorities and easily referenced by those involved in the project.

Fire Safety Strategy

The development of a clear and coherent fire strategy demands specialist knowledge in all the key elements. We have this expert knowledge. We consider the dynamics of fire and smoke, the behaviour of occupants and the response of structural components to fire. We also understand 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. These elements are brought together in a well-considered fire strategy that takes cognisance of the management of fire safety and addresses the potential risks to the building and occupants.

Engineered Solutions

Where appropriate, we are able to produce a fully fire-engineered solution that draws upon an in-depth understanding of the interaction of systems in contemporary building design. Engineered strategies will often incorporate the use of state of the art computational techniques. These are able to model the interaction of smoke and building geometry, the movement of occupants exposed to fire and the structural response of building elements.

Throughout the development of an engineered solution we maintain a close dialogue with the client, professional team and approving authorities. Early consultation ensures that all team members can track the progress of the solution and realise the benefits from a performance based approach.

Our work culminates in the production of a performance based fire safety strategy. We combine an up-to-date understanding of the phenomena and effects of fire coupled with the resilience of established guidance to provide comprehensive and readable documentation.



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.

We aim to be involved throughout the design process, from conception through to eventual occupation.

We recognise the importance of fire safety management, especially in large and complex buildings. Our approach outlines effective management, planning and development of fire safety procedures. We also provide advice related to employee training and can produce the associated manuals.

An Integrated Team

Our team of fire safety engineers utilises the full range of engineering skill and experience available within Grontmij. Our ability to draw on the expertise of the entire group ensures that our proposed fire safety strategies take full account of available technologies and practical aspects of their integration and implementation.

We offer functional advice on the design of mechanical and electrical systems, including advanced smoke detection and sprinkler protection. We also advise on integration with building vertical transportation systems. This diverse range of skills enables Grontmij to deliver innovative and cost effective advice. This is the cornerstone to our approach.



- The Tower, One St George Wharf, London
- 1 Park Place, Canary Wharf, London
- Imperial College London, London
- Odeon, Leicester Square, London
- Universiti Teknologi Petronas, Malaysia
- Elizabeth House, London

Fire Strategy Development

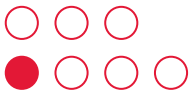
- Risk analysis
- Personal emergency evacuation plans (PEEP)
- Effective fire protection
- Means of warning and escape
- Access and facilities for fire-fighting
- Structural fire protection
- Special risk protection
- Internal and external fire spread
- Smoke management and control
- First aid fire-fighting
- Active fire-fighting systems
- CFD and people movement modelling
- Future proofing

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



Selected Projects

100 Wood Street, London
15-25 Davies Street, London
Commercial Bank of Qatar
Chelmsley Wood Shopping Centre
Citigroup HQ, London
Elizabeth House, London
Grosvenor House Hotel, London
Grants of Croydon
Index, Dubai
Imperial College, London
MID City Place, London
More London Development
Neptune's Evolution, Mumbai
Odeon Leicester Sq, London
Oxford University Library
Quartermile, Edinburgh
Riva Hotel, Heathrow
Royal Academy of Arts
Spinningfields, Manchester
St Anne's College Oxford
The St Botolph Building, London
Vauxhall Cross, London
The Walbrook Building, London
The Willis Building, London
YTL HQ, Kuala Lumpur

Selected Clients

ASDA
Boots the Chemist
British Airport Authority
British Land
Buckingham Securities
City of London
Commercial Bank of Qatar
Development Securities
Helical Bar
Hilton Hotels
ITN
Lazard
London City Airport
Londnewcastle
Marriott Hotels
Minerva
National Physical Laboratory
P&O
Prudential
Selfridges
St George
Stanhope
Steamboat Developments
Union Properties
University of Oxford

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