

# Hawkins

Leaders in forensic investigation



## THE BUILT ENVIRONMENT

Providing forensic engineering, forensic architecture and expert witness services for incidents relating to all aspects of the built environment during its design, construction, operation and demolition.

[www.hawkins.biz](http://www.hawkins.biz)

Architecture & Building Defects | Civil & Structural Failures  
Construction & Demolition Incidents | Falls from Height | Fire Engineering & Fire Spread  
Flooding & Hydrology | Foundations, Piling & Subsidence | Highways/Railways  
Noise & Acoustics | Tunnels & Bridges | Vibration Damage | Wall & Slope Stability  
Water Ingress & Basements | Wind Damage

## ABOUT HAWKINS

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Hawkins, established in 1980, provides specialist forensic root cause analysis and expert witness services to legal, insurance and risk management professions. We also investigate incidents for contractors and consultants.

The company has 8 offices in the United Kingdom and offices in Dubai, Hong Kong and Singapore. All offices are staffed by highly experienced forensic scientists and engineers from a wide range of disciplines, including mechanical, electrical, civil, structural and highway engineering.

*“Clients come back to Hawkins because of our honesty and integrity. Our subject matter experts have sound technical knowledge and expertise, married with a real commercial awareness of what our clients need. Hawkins provides a rapid response, giving timely, accurate advice and communication of the evidence in a way our clients can act upon.”*

*Dr Andrew Prickett, Managing Director, Hawkins*

Our experts can assist with incidents and problems relating to buildings, structures and construction. The team includes a core group of civil and structural engineers together with experts in architecture, geotechnical engineering, flooding & hydrology, fire engineering, and acoustics.

As with all Hawkins investigations, we excel in providing a rapid response and high quality reports to assist our clients in understanding the technical issues of a case and the cause of the incident or defect. Our reporting is flexible, ranging from preliminary appraisals to full CPR35 compliant reports to suit the client's needs.

In addition to investigating failures, we are often asked to review designs on a proactive basis, in order to prevent future problems. This provides our clients with confidence that their buildings or structures are sound.



# OUR SERVICES

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## ARCHITECTURE & BUILDING DEFECTS

We investigate building defects to determine whether design or workmanship is the root cause. With experience in many sectors and across all RIBA stages from inception to occupation, we can provide advice tailored to your project. Typical investigations we would be involved with include claims relating to design co-ordination, compliance with Building Regulations and industry standards, and performance of architectural services.

## CIVIL & STRUCTURAL FAILURES

We gather evidence at the scene and carry out structural analysis and design reviews to investigate the cause of collapses. Our cases range from large-scale, high-profile building collapses to partial roof collapses. These typically occur during construction or demolition or as a result of snow loading.

## CONSTRUCTION & DEMOLITION INCIDENTS

Many of our experts have a background in construction and can advise on methods and procedures relating to personal injury cases and failures of temporary works. We often review and comment on the suitability of method statements and risk assessments, as well as compare them to the actual work undertaken.

## FALLS FROM HEIGHT

Whether the fall was from a roof, a window or a staircase, we investigate the cause of the fall and provide advice on whether the relevant parts of the building were compliant with safety guidance and Building Regulations.

## FIRE ENGINEERING & FIRE SPREAD

Hawkins has the necessary competencies to advise on fire engineering matters including compliance with fire safety legislation and guidance, investigation of fire spread and building fire safety design, construction and management.

## FLOODING & HYDROLOGY

We use hydrology expertise in cases involving flooding from surface water, groundwater, rivers and artificial sources, such as sewers and water mains. We assess the rainfall or flood event and identify the contribution of other causative factors, like drainage maintenance and condition.

## FOUNDATIONS, PILING & SUBSIDENCE

Property damage caused by ground movement or foundation failure can be a result of poor design or construction. Our expertise in geotechnical engineering, combined with our investigative skills, enables us to undertake a full assessment and determine the cause.



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## HIGHWAYS/RAILWAYS

Whether the case involves a road traffic accident, potholes or flooding, we have the experience to advise on all highway matters relating to both design and maintenance. In addition, we have investigated railway incidents including derailments, unintended runaways and accidents at level crossings.

## NOISE & ACOUSTICS

Noise and acoustics are important considerations in designing buildings. Where design consultation is required, we are able to work with the designer from the conceptual stage through to post-completion testing, enabling us to assist with defect diagnosis and dispute resolution.

## TUNNELS & BRIDGES

We have carried out failure investigations for a number of major infrastructure projects around the world, including in the United Kingdom, Hong Kong and Qatar.

## VIBRATION DAMAGE

Construction activity and traffic are two common sources of vibration that are often blamed for causing cracking or movement in buildings. We can monitor the vibration and inspect the damage to determine whether the vibration is likely to be the cause.

## WALL & SLOPE STABILITY

Investigations into retaining wall and freestanding wall incidents often show that the collapse occurred due to inappropriate construction practices or poor design. Many cases have involved personal injuries. We have the expertise and specialist software to carry out detailed slope stability failure analysis, including reclamation issues.

## WATER INGRESS & BASEMENTS

We carry out damp surveys and investigate flooding within buildings, including sewer and drainage problems. Typical building defects include failure of construction materials and poor installation, particularly with regard to basement waterproofing and roof construction.

## WIND DAMAGE

We conduct a scene examination, design review and meteorological assessment to determine whether the damage was caused by extreme weather conditions or by structural weaknesses. With most wind related damage, typically involving roofs and cladding, we show that there were underlying construction or design defects that caused the failure.







## OUR EXPERTS

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Hawkins' team of experts has construction industry experience in design consultancy and contracting, in both the UK and overseas. Using this knowledge and experience, combined with skills in forensic investigation, they are able to conduct investigations into a wide range of incidents and failures relating to the design, construction and use of the built environment.

If you wish to make an enquiry or instruct us, please contact the office closest to the incident location and you will be put in touch with the relevant expert (see contact details on back cover). Alternatively, you can contact any of our experts directly – their details are on the following pages, arranged by location.

## BIRMINGHAM



Tom Dale  
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Tom has a Masters in Fire Engineering and a background in fire safety and risk management. He began as a Safety Engineer for DNV, estimating the likelihood of fire and explosion events within the oil & gas industry. Tom also previously worked as an Associate Fire Engineer for WSP, where he developed strategies within a range of sectors including: residential, commercial, schools, hotels, airports, hospitals and retail developments.

## DUBAI



Austen Smith  
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Austen has over 15 years' experience of working on projects across Europe, the Middle East, East Asia, the CIS and Australia. Whilst being focused on transport infrastructure, he was responsible for the delivery of projects of various scale and complexity across a wide range of sectors. He has a background in Construction Law and has undertaken peer reviews and given advice on code compliance, buildability and maintenance.

## CAMBRIDGE



Rosalind Lambert-Porter  
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Ros has a background as an acoustics engineering consultant. She provides expert advice in relation to acoustics in buildings, environmental impact, noise related disputes and personal injuries due to noise and vibration exposure. She is assisted by Jonathan Dance.



## GLASGOW



Jon Watkins  
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Jon has extensive experience in structural engineering design ranging from residential projects to major civil engineering works overseas. He has also worked on site for a civil engineering contractor. Jon now carries out a wide range of forensic investigations relating to structural failures, building defects, construction incidents, personal injuries and fires.

## LEEDS



James Clarke  
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Beginning with experience in pharmaceutical and heavy industry project engineering, James has worked in fire engineering design to deliver fire strategies and provide advice on commercial and residential developments. James now investigates fire incidents in addition to consideration of the design, construction and management of fire protection provisions.





## LONDON



Rob Baldock

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Rob is a Chartered Structural Engineer with nearly 15 years of building design experience. He has worked extensively with standard structural materials and more recently specialised in structural and architectural glass and associated façade systems.



Niralee Casson

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Niralee is a chartered architect with 10 years' experience. She has broad experience of designing different building types with a specific focus on Build to Rent, co-location and mixed-use residential projects. Niralee investigates building defects, contractual disputes and professional negligence, preparing reports that can be used in litigation and alternative dispute resolution.



Ahmad El Ghor

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Ahmad is an Associate Member in the American Society of Civil Engineering. As part of his PhD from the American University of Beirut, he collaborated with experts in structural fire engineering from The University of Texas at Austin. His research focused on improving the design standards for structural resistance to fire loads. He has design experience in both steel and composite concrete-steel structures.



Alastair Ferguson

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Alastair has been an architect for more than twenty years, specialising in the detail design and delivery of complex residential projects on urban sites. He has a background in Construction Law, and has extensive experience in negotiating appointments, risk management, and advising on building disputes.







Sarah Hooton  
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In addition to experience in infrastructure design and construction, Sarah has worked for over 10 years as a Fire Engineer, delivering fire strategies and advice for a range of building types including high rise residential. Her experience includes defining and monitoring temporary fire safety solutions during construction. Sarah investigates defects in design and construction of fire protection provisions, compliance with fire safety legislation and incidents of fire spread.



Paul Hughes  
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Paul's design experience has been primarily in marine engineering. He has also worked on site, supervising the construction of bridges and retaining walls. Paul now investigates a wide range of incidents and construction related issues.



Richard Keightley  
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Richard is a Chartered Water and Environmental Manager with over 15 years' experience in water and environmental engineering, flood risk management, hydrology and asset management. Richard specialises in the investigation of flooding and drainage issues.



Bernard Travers  
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Bernard has worked on a wide range of structural and civil engineering projects and forensic investigations in the United Kingdom and overseas. His interests and experience include masonry, steel and concrete buildings, vibration, subsidence, wind and storm damage, façades, cladding and design reviews.



## MANCHESTER



Richard Giles-Carlsson  
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Richard joined Hawkins following a career in contracting on numerous major civil engineering projects. He has experience in temporary works, lifting operations, and coordinating subcontractor works on behalf of the Principal Contractor. Richard now investigates a variety of structural failures, building defects and construction incidents, including personal injuries on construction sites.



Mike Hopwood  
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Mike specialises in all aspects of Highway Engineering. With over 25 years' industry experience, he can assist with any issues relating to roads and footways, including, for example, construction, design, maintenance and layout problems and drainage. Mike is also a qualified health and safety professional, specialising particularly in CDM and construction/workplace safety.

## REIGATE



Jolyon Antill  
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Jolyon is a Chartered Civil Engineer with over 25 years working in design consultancy. He has worked on a range of educational, residential, leisure, industrial and commercial projects including new builds, renovations, and structural surveys. Jolyon has also spent time on-site on a motorway widening project; the building of a roundabout on a live trunk road; and the multi-disciplinary design of Heathrow Terminal 5, giving him extensive knowledge and practical experience in the construction process.



Hannah Fletcher  
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Hannah has worked on major civil engineering projects both in the UK and New Zealand as an engineer and project manager. She has experience in project management, structural steelwork, reinforced concrete, facades, earthworks and temporary works. Hannah now investigates a wide range of building and construction related incidents and fires.





Ian Major  
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Ian spent 15 years working on the design, project management and delivery of infrastructure projects before moving into the field of forensic engineering and fire investigation. He has conducted numerous building and construction related investigations including personal injuries caused by wall collapses, falls and demolition work.



Andrew Reeves  
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Andrew has over 20 years' experience in the design and construction of civil, structural and geotechnical projects. He has worked for design consultants and contractors globally. At Hawkins he has investigated high profile and complex failures, often using specialist software, and is frequently asked to check or design associated remedial works.



Sam Morley  
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Sam spent 13 years as an architect in practice leading projects across the public and private sectors throughout the project lifecycle from inception to post-handover. A background in construction law and contract administration enables Sam to provide advice on issues relating to design responsibility and certification in projects with multiple parties.





## SINGAPORE



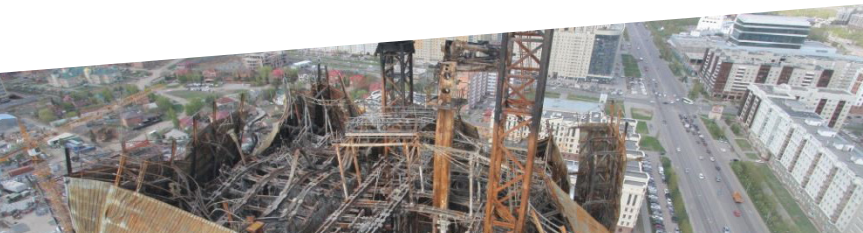
Yang Dang  
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Yang has over 12 years of research and industry experience in Singapore, the Middle East and the United States. He has extensive experience in structural engineering on a wide spectrum of projects in the commercial, industrial, residential, and infrastructure spheres. Yang also has practical knowledge of geotechnical engineering, such as foundations and temporary earth stabilising structures.



Shimin Zhaung  
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Shimin has design, analysis and construction support experience for various types of large-scale projects in Singapore. He specialises in geotechnical engineering and has worked on a wide range of geotechnical projects including deep excavations, retaining walls, reinforced soils, deep foundations, ground improvements and segmental bored tunnels.



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