

Sky-high risk:

The impact of tall tower construction in the UK

2025



Tall tower construction in the UK, particularly in London, is on the rise.

In 2024 alone, there were 583 schemes above 20 storeys either in planning or already built, according to New London Architecture's 10th annual London Tall Buildings Survey. This is more than double the 270 buildings built over the past decade.





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Executive summary



"This report compares London's tall buildings pipeline and recently completed projects with the tall buildings pipeline and completions of recent years."

583

Buildings of over 20 storeys were either in planning or already built in 2023 UK skylines have significantly evolved in recent years, with businesses constructing more buildings at greater heights than previously expected.

The rise of tall tower construction in the UK, particularly in London, can be attributed to several factors, including <u>a growing population</u>, increased demand for quality office space and housing, and a desire <u>to improve shared public spaces</u>.

In 2024 alone, 583 schemes of more than 20 storeys were either in planning or already built, according to New London Architecture's (NLA) 10th annual London Tall Buildings Survey. This is more than double the 270 buildings built during the past decade.

Contractors, developers, and owners must continue to consider the risks associated with tall building construction and take action to mitigate and manage existing and emerging risks to deliver successful projects. The future of tall tower construction will depend on resilient infrastructure, compliance with regulatory and sustainability requirements, and an understanding of the broader needs of the public.

New legislation, property market developments, and insurance market conditions impact developers' and owners' building plans. To understand these changing trends, this report compares London's tall buildings pipeline and recently completed projects with the tall buildings pipeline and completions of recent years. The landscape outside of London, including the Midlands, the North of England, and Scotland, is also considered.





"The long-term outlook for the construction of tall towers remains positive. Proactive risk management strategies can help developers, owners, and other key stakeholders address risks and seize opportunities."

In the context of tall tower construction in the UK, several key risks must be addressed, including the following categories:

- Physical risks, including fire and water damage: The potential
 for fire incidents is heightened in tall structures, as fire can spread
 faster, buildings tend to accommodate more occupants, and
 evacuation options may be limited. Similarly, tall buildings have
 complex plumbing systems and the potential for leaks or failures
 at various heights, particularly during installation, can lead to
 extensive damage across multiple floors. The added challenge of
 accessing and repairing water damage in tall structures can extend
 repair times, potentially increasing costs and delay to completion
 of a project.
- Legal and regulatory compliance: Safety codes, property laws, and building regulations that govern structural integrity, fire safety, and accessibility are critical for tall building construction. Non-compliance can result in legal liabilities, fines, and operational disruptions. Increased regulations are also playing a pivotal role in driving sustainability in the built environment to meet net zero by 2050.
- Construction site hazards: Improper operation of machinery, maintenance issues, or adverse weather conditions can heighten construction site hazards and increase potential accidents such as crane collapses, falling loads, and worker injuries. Organisations need to mitigate and manage these risks to maintain occupational safety and health.
- **Cyber:** Hacking, loss of confidential data, and other exposures from integrated project deliver (IPD) and building information modelling (BIM) can present significant risks to the success of a construction project.
- Additional risks: Construction in densely populated areas
 heightens risks to surrounding properties and individuals,
 introduces flight risks with buildings and cranes potentially
 threatening air traffic safety, and presents the potential for targeted
 acts of terrorism on high-profile buildings. Changes to planning
 regulations could result in an increase in rights to light disputes.

As the UK construction sector navigates a complex landscape shaped by various social, political, and economic factors, it is crucial for developers and owners to prioritise the management and mitigation of risks that can potentially lead to project delays and substantial reinstatement costs.

While the recent <u>stabilisation of the UK construction insurance market</u> might offer some reassurance, it remains vital for stakeholders to engage proactively with the market and provide comprehensive risk management strategy reports. A risk management specialist can help you find the right insurance and risk mitigation protective methods for your project.

Overall, the long-term outlook for the construction of tall towers remains positive. Proactive risk management strategies can help developers, owners, and other key stakeholders address risks and seize opportunities.

Recent construction trends



"In the regulations, a high-rise residential building is defined as a building containing two or more sets of domestic premises that are at least 18m tall or at least seven storeys."



Tall tower owners and developers are facing a changing landscape

Regulations: The Building Safety Act (BSA) 2023

The Building Safety Act was introduced in response to the Grenfell Tower fire tragedy in 2017. This regulation focuses on structural and fire safety for residential buildings, including blocks of flats, student accommodation, and hotels. It increases regulatory oversight compliance before construction work begins, during the building phase, and upon completion.

Owners are required to manage safety risks with clear lines of responsibility. A "golden thread" of information mandates that owners must keep an accurate and up-to-date digital record of crucial building information, ensuring that safety is considered at every stage of the building's lifetime, including the planning process.

Owners must register their buildings and demonstrate effective, proportionate measures to manage safety risks. Any incidents must be reported to the <u>Building Control Authority</u> a service under the Building Safety Act that regulates higher-risk buildings, raises safety standards, and helps professionals in design, construction, and building control to improve their competence.

The Act requires the <u>Building</u> <u>Control Authority</u> to provide gateway 2 (pre-construction) signoff for higher risk buildings, such as new high-rise residential buildings (including those with commercial premises, including shops, restaurants, or gyms), care homes, and hospitals that are 18 metres (seven storeys) or more in height.

The Regulatory Reform (Fire Safety) Order 2005

This order provides a framework for regulating fire safety, and was amended in 2022 to ensure tougher sanctions for noncompliance. As of January 2023, the Fire Safety (England) Regulations 2022, which crystallised many of the **Grenfell** <u>Tower Inquiry</u> recommendations into enforceable actions, made it a requirement by law for building owners or managers of high-rise residential buildings to provide information to fire and rescue services to assist them in planning for and responding to a fire in their building.

In the regulations, a high-rise residential building is defined as a building containing two or more sets of domestic premises that are at least 18 metres tall or at least seven storeys.

The regulations make it a requirement by law for the responsible persons of highrise blocks of flats to provide information to fire and rescue services to assist them to plan and, if needed, provide an effective operational response. Those who don't meet their obligations may face criminal charges.



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In high-rise residential buildings, responsible persons will be required to:

- Provide electronic building plans and details of external wall systems to their local fire rescue service.
- Install secure information boxes for hard copies of plans.
- Undertake monthly checks of firefighting lifts and other firefighting equipment.
- Report any defective lifts or firefighting equipment to the fire brigade.

In residential buildings of more than 11m in height, responsible persons will be required to:

- Undertake annual checks of flat entrance doors and quarterly checks of all fire doors in the common parts.
- Provide residents with information relating to the importance of fire doors in fire safety.
- Share relevant fire safety instructions to their residents, which
 will include instructions on how to report a fire and any other
 instruction which sets out what a resident must do once a fire has
 occurred, based on the evacuation strategy for the building.

Increased oversight requires owners to fully consider their construction plans and take action to mitigate these safety risks. One advantage is that the avoidance of late changes to plans helps to minimise costs and delays to mitigate risks in relation to long-term liability.

Potential downsides include time added to project schedules and the disruption of procurement routes. For example, the need to resolve the design fully before starting on site could make design and build options less attractive.

According to Marsh research, the attitude of construction insurers towards cladding on tall towers in terms of coverage and pricing has undergone significant changes since the Grenfell tragedy in 2017.

Insurers have become more cautious and stringent in their approach due to the increased risks associated with cladding. Regulation of materials related to fire rating is a key consideration for construction and operational insurers.





"One of the defining aspects of the London Plan, greater London's spatial development strategy, is the idea of a "compact city", to meet increased population needs with efficient and sustainable land use."



ESG and sustainability

Construction companies in the UK, like many other organisations globally, are facing more stringent requirements for carbon standards, emissions, and sustainability reporting. One of the defining aspects of the London Plan 2021, or greater London's spatial development strategy, is the idea of a "compact city", to meet increased population needs with efficient and sustainable land use.

The London Plan 2021 includes policies to ensure that all major developments are zero-carbon and include circular economy principles, with schemes designed to improve air quality, protect and increase green infrastructure and biodiversity, and reflect "healthy streets" principles to enhance the quality of life for citizens. It emphasizes carbon reduction across the whole lifecycle of the building, and focuses on:

- Maximising energy efficiency
- Considering carbon offsetting and its cost implications
- Encouraging the retention of building structure where possible
- Rethinking demolition of buildings
- Employing circular economy principles

It also states that it is important to create places of higher density in appropriate locations to get more out of limited land, to encourage the use of land mixes, and to colocate different uses to provide communities with a wider range of services and amenities.

Energy usage has become a key consideration and can add significant risk to the planning process and cost to completion of the project. Additionally, the use of non-traditional green building materials could result in higher construction and operational insurance costs, and the availability of insurance itself, if these materials are classed as "unproven" by underwriters.

The Greater London Authority (GLA) planning policy requires major planning applications to calculate whole lifecycle carbon emissions (WLC) to provide a true picture of a building's carbon impact on the environment. WLC emissions represent the carbon emissions resulting from materials, construction, and use over a building's entire life, including demolition and disposal.

Other key trends that sit at the intersection of sustainability and construction in the UK include:

- The amount of embodied carbon is increasingly considered in planning decisions and could count against tall buildings, which could need heavy steel or concrete structures, both of which are energy intensive materials.
- 2022 also saw the use of recycled components, one example of which is the reuse of steel, and photovoltaic panels embedded into facades as potential ways to help deliver net zero or energy positive buildings.
- In 2022, members of the City of London's Planning and Transport Committee adopted a new planning advice note on whole life carbon optioneering that requires developers to submit specific information about the comparative carbon impact of a range of alternatives for proposals at pre-application stage.
- Construction companies are looking to drive innovation in the industry to hit net-zero targets.
 Low carbon concrete and reused steel are both increasingly popular options.



"A combination of factors, including comparatively lower land values, ongoing large scale regeneration projects, higher density schemes, and the Mayor of London's pledge towards protecting the green belt is leading to a shift to construction outside the core of central London and the City, according to Marsh research."

1.5 million

were planned to be constructed back in July 2024 by the UK government In line with net-zero targets, there is a growing trend to retrofit rather than demolish, including schemes that will add new storeys to existing towers. An example is Kohn Pedersen Fox's design for the overhaul of Foster + Partners' headquarters for HSBC, at 8 Canada Square, Canary Wharf, London, which was unveiled in July 2024.

Work on the 22-year-old building is set to begin in 2027, when HSBC's lease ends. The scheme will part-retrofit the 45-storey tower, to include work spaces, leisure, entertainment, education facilities, cultural attractions, and a rooftop viewing gallery, the first public viewpoint in Canary Wharf.

Designers plan to carve out new terraces by making some floors smaller and the building will be divided into sections to make it easier to lease.

Government ambitions hindered by economic factors?

In July 2024, the UK government announced plans to construct 1.5 million homes by 2029. According to NLA, in 2024, momentum slowed for residential towers across the capital, and the Building Cost Information Service (BCIS) said construction firms had been challenged in recent years by falling demand, stagnating output, and high costs. However, inflation is levelling off, added BCIS, prompting a lowering in costs, and total new work output in the UK over the forecast period (2024-2029) is forecast to grow.

Location and usage

London: According to NLA, in 2024, there was a more mixed picture in tall building activity than in previous years. Demand for Grade A offices continued to drive a greener generation of mixed-use tall buildings, particularly in the City of London, which in November 2023, announced that planning applications submitted and decided had risen by a quarter year on year.

A combination of factors, including comparatively lower land values, ongoing large scale regeneration projects, higher density schemes, and the Mayor of London's pledge towards protecting the green belt is leading to a shift to construction outside the core of central London and the City, according to Marsh research.

Tall buildings have helped drive regeneration and are seen by some boroughs, such as Tower Hamlets, Southwark, and Croydon, as crucial to meeting housing targets. Marsh research suggests there has been a substantial increase in the percentage of build to rent as a proportion of all residential tall building completions.





"In Birmingham, a cluster of towers is set to transform the city centre, including the 49-storey Octagon build-to-rent skyscraper.

36,000

new homes, including 10,000 affordabe dwellings, are planned for completion in Manchester in 2023 **West Midlands:** In Birmingham, a cluster of towers is set to transform the city centre, including the 49-storey Octagon build-to-rent skyscraper.

In July 2024, proposals for Birmingham's <u>35-storey Cambrian</u> Wharf student accommodation development was approved by the city council's planning committee. This will join the Brindley Drive development, an interlinked 46-storey tower and 15 storey tower, that was approved in 2023.

Northwest England: In

Manchester, planners aim to <u>build</u> 36,000 new homes — including 10,000 affordable dwellings — by 2032, and the Deansgate area of the city has been earmarked as a skyscraper district by the council.

The city's tallest building, Deansgate Square South Tower, which stands at 200m (656ft), opened in 2018, and the developers behind it, Renaker, have plans to build two 47-storey and two 51-storey skyscrapers on land currently used as padel courts and car parking. The planned towers have not yet received planning permission, given resident objections.

Other planned projects include a 213m lighthouse tower near Deansgate Square. Viadux Phase Two, also near Deansgate, will have 76-storeys and extend to about 230m, making it one of the tallest towers in the country.

Scotland: In November 2023, Glasgow City Council announced it was developing new planning guidance for tall buildings in the city centre, which would guide decisions on design and location. The council's aim is to re-populate and re-densify the city centre in a sustainable way.

Glasgow has several wellestablished tall buildings, such as its tallest building, the Science Centre Tower, a 127m free-standing landmark observation tower located on the River Clyde.

A number of tall buildings in the city centre are currently either being constructed — such as the 17-storey Candleriggs build to rent development, in the Merchant City area, which accommodates 346 apartments. In August 2024, plans were approved to build a 35-storey student accommodation tower block at the Charing Cross area of the city.

More applications for tall buildings are expected in future as demand for housing and other uses in the city centre grows. In addition, the repurposing of existing city centre buildings might necessitate additional height to create more floorspace.



£30.5 billion

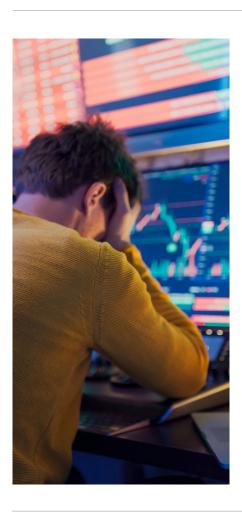
The estimated cost to UK businesses of intellectual property theft, espionage and extortion

73%

of participants surveyed in a GlobalData poll believe cyber security is currently disrupting their industry or will do so within the next year

20%

of companies surveyed in the government's Cyber Security Breaches Survey 2024 have board members accountable for cyber security



Cyber risks

As buildings become increasingly connected by modern technologies, they may become more vulnerable to cyber attacks. While awareness of the possibility of digital strikes has grown, so has the amount of connectivity within developments. As the reliance on informational technology (IT) and operational technology (OT) becomes more widespread, the attack surface grows, with hostile actors, from criminal gangs to antagonistic nation states finding more creative methods to expose their targets.

The UK construction industry was identified in 2024 as a high risk sector for ransomware and malware. Activities such as intellectual property theft, espionage, and extortion cost UK businesses an estimated £30.5 billion a year.

A 2024 GlobalData poll indicated that 73% of participants believe cyber security is currently disrupting their industry or will do so within the next year. However, the UK government's Cyber Security Breaches Survey 2024 found that only 20% of construction companies have board members accountable for cyber security.

The cyber threat is so acute that GCHQ's National Cyber Security Centre issued Cyber Security for Construction Businesses, a digital guide for the UK construction industry. It is the first industry-specific guide to be issued by the intelligence and security body, and comes at a time when other sovereign states, such as the US, have experienced unprecedented levels of espionage targeting critical national infrastructure.

Vulnerabilities can arise during construction in the computer-based control systems installed in buildings that regulate and monitor its mechanical and electrical equipment, such as ventilation, lighting, power, fire, and security systems.

Often, these systems are installed by different contractors, who may lack specialist knowledge of their software or computer hardware elements. This means that building management systems and the internet of things — or an organisation's broader network of connected devices equipped with sensors and software that interact with each other and the internet could fall through the gap between an organisation's IT department and the capabilities of the mechanical and electrical contractors, who maintain building services.

Loss of sensitive business information, ransomware demands, financial penalties, and significant reputational damage can all arise from a lack of attention paid to construction cyber risks. Therefore, it is imperative that construction firms take the necessary measures to educate their workforces, bolster defences, and mitigate and/or transfer risk where there is appetite to do so.

While there is no one-size-fits-all approach when it comes to cyber coverage, comprehensive cyber insurance coverage and expert risk management support can help protect your business and personal data. This is due to a combination of factors including the achievement of rate adequacy following a challenging market from 2019 to 2022 and improving cyber risk posture among insureds.

In the context of construction firms and other industrial sectors, there is an emerging coverage gap for cyber property damage, which has stemmed from the tightening of cyber exclusions on traditional lines policies. With increasing digitisation of supply chains and reliance on operational technology, the cyber market is witnessing larger deployment of capacity to specifically address these exposures, usually by way of buy-back solutions or standalone policies.



"Developers and planners need to strive for high quality amenities and outdoor open space for occupants. They can bring social value and social inclusivity, with features including roof top bars or viewing platforms, arts facilities, or even healthcare or community spaces."

22,000

housing units in residential towers in London have been built since 2000

6%

of these housing units were affordable and only 0.3% were designated as social housing

Residents' needs

Tall buildings have contributed to the densification of London and other UK cities, but, according to NLA's 2024 survey, there needs to be more consideration in terms of optimising sites in a way they can give back to the community.

As part of this, tall tower construction will need to account for the needs of the public and consider mixed use. Developers and planners need to strive for high quality amenities and outdoor open space for occupants. They can bring social value and social inclusivity, with features including roof top bars or viewing platforms, arts facilities, or even healthcare or community spaces.

Varying tower heights

The London Plan 2021 applies a six storey or an 18m threshold and states that this threshold value will vary between and within different parts of London. The BSA also applies an 18m or seven storey threshold for high-rise buildings to be included within its scope.

Many boroughs have followed the London Plan's definition of a tall building, leading to a tougher planning environment in outer boroughs, which are looking for gentler forms of densification. According to the NLA's Tall Building Survey, the average number of storeys in London is 29.

Outside the city, the scale of tall buildings is reducing and there is more interest in developing 12- to 18-storey groupings, rather than the super-tall buildings of a decade ago. Clusters of small towers potentially manage construction risks — and therefore costs — by splitting up the value of the development. Going forward, multiple structure designs may increase in popularity, which may have added benefits by making projects more insurable, because the value of risk being in a single structure is reduced.

In Birmingham, Manchester, and Glasgow, the trend of constructing taller buildings appears to be continuing.

In April 2024, the Policy Exchange issued a report that criticised Britain's "mania for tall buildings," claiming that tall buildings do not deliver high densities as claimed, and that the boom in high rises, rather than addressing the housing crisis, has exacerbated the problem.

The research indicates that the 68 new residential towers in London since 2000 have provided more than 22,000 housing units, of which only 6% were affordable, and 0.3% designated as social housing.

Looking ahead, compliance with tall building policies will become a mandatory, statutory planning requirement for any tall building proposal over 60m across England and Wales.



Construction insurance market



"Renewal of insurers' treaties has been less volatile and unpredictable, and rate increases are finally easing after six years of hardening market conditions."

In 2024, the construction industry began to experience more favourable market conditions. Market trends in that year reflect the following shifts:

- Stricter technical underwriting criteria and discipline is now well adopted. Markets have become much more predictable on coverage offered, less volatile in their responses, and more confident about pricing adequacy.
- Renewal of insurers' treaties
 has been less volatile and
 unpredictable, and rate increases
 are finally easing after six
 years of hardening market
 conditions. Most are continuing
 to experience flat or single digit
 percentage rate increases.

- The average rate movement in the UK construction insurance is summarised in the following points:
- a. General liability: 5% to 10%
- b. Annual programme CAR (contractor's all risk): Flat to 5%
- c. Single project CAR: Flat to 5%
- d. Single project EAR (erection all risks): Flat to 5%
- Rate increases in the London market were on average between 5% to 7.5% across global portfolios with higher increases seen where risks regarding supply chain and risk management concerns exist.

Rising claims costs may impact insurers' profitability particularly in key cost factors such as healthcare, construction materials, workforce, and litigation.





"Construction insurance for tall towers can be expensive due to the high value of the project and its associated risks. Insurers might charge higher premiums to cover the potential losses and liabilities involved."

22,000

housing units in residential towers in London have been built since 2000

6%

of these housing units were affordable and only 0.3% were designated as social housing

Impact on developers

Developers face several challenges when placing construction insurance on tall towers. These challenges can arise due to the unique characteristics and risks associated with constructing tall structures.

Some of the key challenges include:

Cost and availability: Construction insurance for tall towers can be expensive due to the high value of the project and its associated risks. Insurers might charge higher premiums to cover the potential losses and liabilities involved. Additionally, finding insurers willing to provide coverage for tall towers can be challenging, as some insurers might have restrictions or limitations on insuring such projects.

Risk assessment: Insurers require a thorough risk assessment before providing construction insurance for tall towers. Developers need to provide detailed information about the project, including the design, construction methods, materials used, and the experience and track record of the construction team. Insurers need to evaluate the risks associated with the project, such as structural integrity, fire hazards, and potential environmental impacts.

Structural engineering and

design: Tall towers require specialised structural engineering and design expertise. Developers need to ensure that the design meets the necessary safety standards and regulations. Insurers may require detailed engineering reports and certifications to assess the structural integrity of the tower. Any deviations from standard construction practices may lead to additional scrutiny from insurers.

Project duration and delays:

Construction of tall towers often takes a significant amount of time and delays can occur due to various factors such as weather conditions, labour shortages, or unforeseen challenges during construction. Insurers need to consider the potential impact of delays on the project timeline and the associated costs. Developers may need to negotiate coverage extensions or additional coverage for delays.

Liability and safety: Developers need to address liability and safety concerns associated with tall tower construction. This includes ensuring compliance with safety regulations, implementing proper risk management practices, and providing adequate worker safety measures. Insurers may require evidence of safety protocols and risk management strategies to mitigate potential liabilities.

Contractual requirements:

Developers may face challenges in meeting the contractual insurance requirements set by lenders, investors, or project owners. These requirements may include specific coverage limits, additional insured endorsements, and compliance with certain insurance standards. Developers need to carefully review and negotiate these requirements to ensure they can obtain the necessary insurance coverage.

How to navigate the construction insurance market

Owners and developers should offer new construction projects to insurers early on. Underwriters are looking for increasingly detailed information from construction firms regarding their business operations, supply chain processes, and project risk management.

Leaving insurance to the last minute may affect premiums and coverage.

By allowing plenty of time to secure insurance, construction companies can better prepare and make best use of their brokers' technical expertise and market relationships, enabling them to differentiate their projects from those of their competitors.



"London's skyline lags behind those of global cities like New York, Dubai, and Hong Kong. This is due to a number of factors, including its historic landscape, the protection of landmarks, and regulations related to building height."

Additional resources

How to manage construction insurance costs more effectively: Discover how owner controlled insurance programmes are helping owners and developers to take control of their finances.

The latest trends for tall buildings and the urban habitat: Find out about the latest tall buildings being planned and constructed globally.

Source: Marsh Specialty Construction research

Note: The listed data for proposed or under construction buildings is based on information currently available. This data is subject to change until the building has been completed and does not include proposed buildings without confirmed height estimates.

Hitting the heights

The graph below shows a selection of the tallest completed, in progress, and proposed buildings in London. Out of these projects, 10 are proposed or under construction, demonstrating how London's skyline is set to be transformed during the next decade.

The height of London's skyline remained largely unchanged during the 1980s and 1990s, with only three projects — Tower 42, One Canada Square, and the Panoramic — completed at a height of more than 20 floors.

By contrast, since 2000, tall tower construction has steadily increased.

Currently, 1 Undershaft (proposed), is set to be London's tallest building, at 310m or 73 storeys. It is followed by The Shard (completed), standing at about 306m or 72 storeys. In third place is Twentytwo (completed), which is 278m or 62 storeys high.

London's skyline lags behind those of global cities like New York, Dubai, and Hong Kong. This is due to a number of factors, including its historic landscape, the protection of landmarks, and regulations related to building height. However, opportunities are becoming available to build higher than ever, putting greater focus on the need to mitigate the associated risks.

01 | London's tallest buildings completed, under construction and planned

Undershaft	310m
• The Shard	306m
Twentytwo	278m
• 55 Bishopsgate	269m
• 100 Leadenhall Street	247m
One Canada Square	236m
Landmark Pinnacle	233m
Salesforce Tower	230m
The Leadenhall Building	225m
• 17 Admirals Way	225m
 Newfoundland 	220m
Aspen, Canary Wharf	216m
• Valiant Tower	215m
The Lighthouse Building	213m
• 4 Portal Way	208m
One Park Drive	205m
8 Bishopsgate	204m
• 1 Park Place	199m
One Portal Way	195m
Harcourt Gardens	192m

Completed

Under construction

Proposed

Student accommodation



"London has an opportunity to remain a competitive global education hub, develop more mixed-use buildings, and better serve communities."

Growth in London's tall building proposals has plateaued as safety legislation, tightening sustainability requirements, economic and political turbulence, and changing work and living patterns transformed priorities.

However, with the demand for purpose-built student accommodation rising to meet the needs of more students, London has an opportunity to remain a competitive global education hub, develop more mixed-use buildings, and better serve communities.

Proposals peaked at 587 in 2021

and were slightly fewer in 2022 at 583. Permissions granted rose from nine in 2021, to 20 in 2022. Six proposals were refused. Totals in 2019 and 2020 were 541 and 525 respectively, while the first survey in 2014 recorded 236 tall buildings.

"The number of planning permissions is still relatively high, [but] we're not seeing as many schemes coming forward for residential tall buildings in the 20-storey plus category," Stuart Baillie, past chair of the NLA Expert Panel on Tall Buildings.

587

proposals for purpose-built student accomodation were submitted in 2021

236

proposals for purpose-built student accomodation were submitted in 2014



UK projects outside London

Tall building construction has increased in other metropolitan areas across the UK. Since 2018, 27 towers — up to 65 storeys high — have been built in central Manchester.

As of January 2025, there are a further 20 towers under construction and another 51 have been granted planning permission or are planned, according to the Save Britain's Heritage report.

In Birmingham, some 15 projects of 25 storeys or more are either in the planning stage, or undergoing construction.



02 | Number of towers completed in London 2008-2024

SI No.	Year	Number of tall buildings completed
1	2008	3
2	2009	1
3	2010	4
4	2011	3
5	2012	1
6	2013	9
7	2014	11
8	2015	7
9	2016	18
10	2017	24
11	2018	33
12	2019	60
13	2020	35
14	2021	30
15	2022	25
16	2023	6
17	2024 (ongoing)	1

Source: Marsh Specialty Construction research

03 | Comparison of London tall buildings pipeline

Year	Applications	Permissions	Starts	Completions
2016	87	45	33	18
2017	71	77	38	24
2018	114	67	36	21
2019	104	62	40	33
2020	83	72	24	37
2021	72	98	29	34

Source: Marsh Specialty Construction research; NLA Tall Buildings Survey 2023

Tall towers: Specific risks



"Some of the largest UK construction claims are caused by the escape of water. This risk is multiplied in a tall tower, due to the high concentration of value in a single structure."



Tall tower construction is complex and increases the potential severity of many traditional construction risks, while also introducing new hazards that are unique to these projects.

Property developers need to be aware of the dangers linked to tall tower construction and take steps to mitigate, manage, and transfer the following risks from their organisations.

Escape of water risks

Some of the largest UK construction claims are caused by the escape of water. This risk is multiplied in a tall tower, due to the high concentration of value in a single structure. Escaping water is an issue particularly during the installation and testing phase of bathrooms, washrooms, and sprinkler systems.

Water damage can cause substantial claims if leaks go undetected, as it can impact several floors of a building and has the potential to damage equipment, such as generators and cables, located in basements.

A <u>best practice guide</u>, produced by the Construction Insurance Risk Engineers Group (CIREG), in conjunction with the UK Construction All Risks Underwriters Group, offers valuable insight on mitigating water damage claims.

This is due to be replaced over time by water management guidelines issued to UK contractors and developers. In August 2024, the Fire Protection Association (FPA) published its first edition of the Joint Code of Practice (JCoP) for escape of water prevention and management on construction sites, covering temporary water systems within buildings.

The document expands on the CIREG guidelines (and indeed, CIREG was involved in the production of this document), and lists mandatory requirements for construction companies in relation to water management, design considerations, installation standards, quality management, testing and commissioning standards, and emergency response.

Fire risks

All tall building construction projects need to adopt and comply with Joint Code of Practice (JCOP) for Fire Prevention on Construction Sites. JCOP was first published in 1992 in response to two significant fires that resulted in a combined loss in excess of £150 million, a level that led insurers to question whether the provision of insurance for construction sites could continue economically.

Implementing robust risk management methods, and employing contractors with good track records, are two key ways that risks can be better managed and mitigated.



"The potential for latent defects and environmental liabilities adds layers of complexity to the project. These multi-faceted risks underscore the importance of comprehensive planning and risk mitigation strategies to ensure a safe and successful tall tower construction project."



Choice of building material risk

The choice of building materials also poses a challenge to tall tower construction as a result of the unique structural demands imposed by height. For example, glass panels used in the façade of high-rise buildings need to be thicker and more durable than those used in shorter structures. This is essential not only for aesthetic considerations but also for safety and performance, as the upper stories are subjected to greater wind loads and thermal stresses. Thicker glass can help prevent breakage and ensure that the building remains energy-efficient by minimising heat transfer.

Additionally, the concrete mix design must be carefully tailored to accommodate the varying loads experienced at different heights. As a building rises, the weight of the structure above increases, necessitating a stronger and more resilient concrete formulation for the lower levels to support the upper stories. This often involves adjusting the proportions of cement, aggregates, and additives to enhance the concrete's strength and durability. Furthermore, considerations such as the potential for shrinkage and cracking become more critical in taller buildings, requiring advanced engineering solutions to ensure structural integrity throughout the lifespan of the tower.

Pumping and placing concrete at extreme heights presents a significant risk and challenge for construction workers involved in the construction of tall buildings. As the height of a structure increases, so do the complexities associated with delivering concrete to upper floors.

One of the primary challenges is the need for specialised equipment, such as high-pressure concrete pumps that must be capable of transporting concrete over long vertical distances. These pumps require careful calibration and maintenance to ensure they operate effectively under the demanding conditions of high-rise construction.

Other risks during construction

The construction of tall towers involves navigating a complex landscape of risks that intensify as the height of the structure increases. Key considerations include maintaining vertical alignment to prevent structural instability, managing elastic shortening of building elements due to the increasing weight, and ensuring the integrity of both internal and external components through diligent maintenance and repair.

Additionally, the proximity to third parties in densely populated urban areas heightens the risk of property damage and personal injury, necessitating robust thirdparty liability measures. Effective evacuation strategies are also critical to ensure the safety of workers and occupants during construction. Furthermore, the potential for latent defects and environmental liabilities adds layers of complexity to the project. These multifaceted risks underscore the importance of comprehensive planning and risk mitigation strategies to ensure a safe and successful tall tower construction project.



"Tall buildings carry a concentration risk, as they are typically located in urban areas, meaning there is a greater risk of damage to property and injury to people due to falling debris."



Terrorism

Construction sites can be targeted by terrorists to cause disruption and threaten economic growth.

Tall buildings carry a concentration risk, as they are typically located in urban areas, meaning there is a greater risk of damage to property and injury to people due to falling debris. Developers need to consider protecting their assets with adequate site safety and security.

Post-construction, tall towers have proved to be targets for attacks. While the most recent significant attack is the World Trade Centre attack on 11 September 2001, since 2017, counter terrorism policing assesses that there have been 15 domestic terror attacks in the UK (not including Northern Ireland-related terrorism), and agencies and law enforcement have disrupted 43 late-stage plots.

The safety of workers is also of paramount importance.

Contractors will likely have a large number of workers on site at any one time and need to think carefully about adequate safety measures and what to do in response to terrorist threats. Furthermore, they may consider strongly terrorism insurance to reinstate construction works, in the event of an attack.

Proximity to third parties

In addition to risks within a site, property developers are exposed to a number of third-party risks during tall tower construction. These projects generally involve working within constrained building sites in densely populated urban areas and are in close vicinity to third parties, heightening risks to people, neighbouring properties, and businesses.

Therefore, consideration needs to be given to third-party liability limits of indemnity, taking into account the factors mentioned above.

A significant event, such as a tower crane collapsing, could cause enormous third-party property damage, injury, and death.

Several factors need to be kept in mind with regards to third party risk, including:

- Litigation costs are increasing and need to be considered in the limits of insurance purchased.
- Any claim that settles above the limit purchased becomes a balance sheet risk for the developer or contractor.
- Developers should also pay attention to the surrounding public realm and infrastructure, such as walkways, landscape gardens, play areas, and statues.
 Possible damage to this thirdparty property should be considered.
- The delivery of materials to a site carries risks to cyclists, pedestrians, and other vehicles.

Accumulation risk

When building occurs in highly populated, dense areas, accumulation risk becomes an issue. With so many projects, and completed buildings, to insure, some insurers are close to capacity for cover. If a new building is planned for a densely populated area, like Canary Wharf for example, there could be challenges obtaining construction and operational insurance for the building.



"There is usually a requirement for developers to purchase a minimum level of liability cover, typically at a limit of £155 million. This figure comes from the standard Network Rail requirement when it enters into an asset protection agreement with a developer or contractor."



Rail and underground infrastructure risk

Projects may be adjacent to existing rail and underground lines. Debris or materials falling on tracks can cause significant delays for rail operators, meaning developers could be liable for high costs that can include travel disruption and damage to infrastructure.

For works that are within the "zone of influence" of Network Rail infrastructure, developers may need to agree contractually under an asset protection agreement (APA) to indemnify rail operators for risks, such as damage to property, injury, and disruption to the railways.

There is usually a requirement for developers to purchase a minimum level of liability cover, typically at a limit of £155 million. This figure comes from the standard Network Rail requirement when it enters into an asset protection agreement with a developer or contractor.

Other operators may not suggest a limit or cap to the developer's liability, meaning even higher limits should be considered. Developers also need to consider instances where a non-damage event causes Network Rail to temporarily close a train line, meaning the developer can be liable for payments under the Network Code.

In this non-damage scenario, specialist insurance coverage may be needed to mitigate these risks.

Contractual financial loss (CFL) insurance will indemnify the developer against track possession related costs, which the insurers are legally liable to pay Network Rail for. The policy responds to liabilities related to the development that do not arise from injury or damage. Events such as over-hanging of cranes, line side fires, and health and safety scares can affect the operation of Network Rail services. Cover is also set up to protect the developer's balance sheet in the event of a protracted incident occurring.

Obstruction of light

Another third-party risk that tall tower developers face is possible right to light litigation. The construction of new tall towers can often overshadow neighbouring buildings, restricting their access to light.

This could mean many residents and office workers lose light, if many of the buildings in the pipeline for London and the wider UK are approved and completed. For property developers, this presents the risk of a third-party injunction to prevent the development from proceeding, leading to significant loss of value, whilst increasing the possibility of litigation costs and project delays.

In the UK, rights of light are typically governed by common law and the <u>Prescription Act 1832</u>, which allows a property owner to claim rights if they have received light for a continuous period (usually 20 years).

In many instances, developers compensate neighbours whose light has been blocked. These costs can be substantial. Therefore, consideration should be given to rights to light insurance to provide balance sheet protection by capping the compensation exposure and protecting against the injunction risk.

In January 2025, property lawyers warned of the possibility of an increase in right of light disputes due to the government's relaxation of planning laws. Engaging with legal experts, surveyors, and insurance broker who specialise in rights of light can provide valuable insights and help navigate potential risks.



"Undertaking construction works in an urban area can give rise to several significant environmental risks, especially as developments are often near waterways, such as the River Thames."



Environmental liability

Undertaking construction works in an urban area can give rise to several significant environmental risks, especially as developments are often near waterways, such as the River Thames. Ground vibration from the works can trigger pollution liabilities, arising both from so-called "sudden and accidental" events, and from gradual pollution events.

The Environment Agency can mandate onsite and offsite statutory clean-up and remediation and that of third-party and nonowned property and natural resources. These costs can be significant. To mitigate potential losses, contractors' pollution liability policies can be a solution.

These are designed to cover the liabilities arising from new pollution conditions, caused by the project development works, and liabilities arising from the inadvertent mobilisation or exacerbation of any known or unknown historic contamination associated with the site.

Examples of such mobilisation include piling, which can create a pathway for the migration of pollution to groundwater. It is important to note that the taller the building, the deeper the pilings will need to be. It also includes windblown contamination arising from demolition, ground, and enabling works.

Construction companies should also pay attention to issues related to transportation liabilities cover and non-owned disposal site coverage.

Tall tower construction can generate a substantial amount of waste, including construction debris, packaging materials, and hazardous substances. Contractors' pollution liability policies can be tailored to include coverage for the transportation of waste products, covering the insured for the value of the loss, clean-up costs, and

environmental damage resulting from the transportation of materials, and also losses arising from a thirdparty site that has received said waste from the insured.

Delay

Project completion dates are often questioned throughout the construction phase. The financial consequence for a delay in completion can be colossal. It can result in loss of revenue, continuing debt service payments, and, in some cases, the cost of alternative accommodation for occupants.

Delay in start-up insurance can provide financial loss cover in the event of a delay taking place. Contractor insolvency also carries a delay risk due to the additional time and costs involved in securing a replacement contractor. While the exposed contract works will often be covered under a project insurance policy, the increased costs and resulting time delays can be uninsurable.

Other risks to consider



"Latent and inherent defects refer to problems that are only identified after a project has been completed, once the building is operational." In addition to property damage and liability risks, the cost and complexity of tall towers calls for increased attention to the following additional risks.

Latent and inherent defects

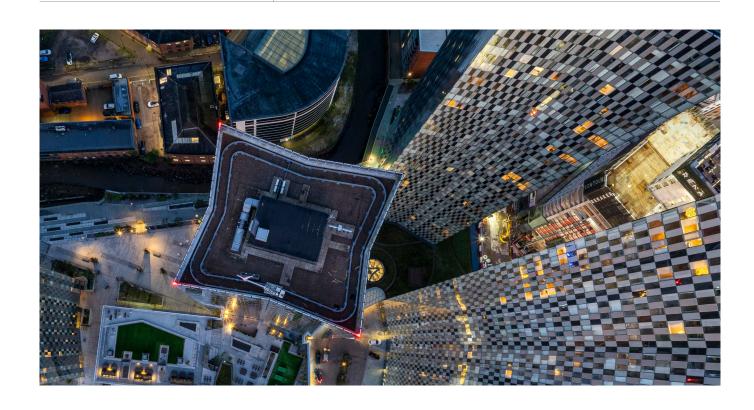
Latent and inherent defects refer to problems that are only identified after a project has been completed, once the building is operational. There can be significant balance sheet exposure if these defects manifest themselves.

Developers have become increasingly concerned about inherent defect risks, especially regarding curtain wall facades, cladding, and double glazing. These made-to-measure units are assembled onsite but might be manufactured overseas.

Once the building is complete and operational, if these critical items fail, the developer could incur significant unforeseen costs to repair the damage, especially if there is no recourse against the manufacturer. Even if there is recourse, these claims could be tied up in court for years, and, furthermore, suing overseas companies in certain territories can be complex.

In the event of these issues, inherent defects insurance can provide long-term balance sheet protection. The policy can protect the developer, cover repair of the issue, and then the policyholder will try to subrogate from the relevant contractors, subcontractors, manufacturers, and consultants.

For a residential project, developers also need to provide a new home warranty to satisfy <u>UK Finance</u> (formerly the Council of Mortgage Lenders). For commercial projects, there may be a requirement for this coverage from the potential tenant or lenders.





"LDI provides cover in the event of an inherent defect in the design, workmanship, or materials becoming apparent in the structure or waterproofing envelope of a building, resulting in physical loss or damage."

Find out more: Legal responsibilities

Discover how the BSA 2023 duty holder/approved person responsibilities will affect construction industry liability enforcements.

The Building Safety Bill is now law and has included changes to the Defective Premises Act. A Marsh <u>article</u> looks at the implications for construction professionals.



Structural defects: An increased interest in latent defects insurance (LDI)

Latent defects are issues or flaws in a property's structure, systems, or components that are not immediately apparent or visible. Following completion of construction, a property "all risks" policy is usually arranged; however, this policy does not provide protection for damage arising out of an inherent or latent defect in the building.

LDI provides cover in the event of an inherent defect in the design, workmanship, or materials becoming apparent in the structure or waterproofing envelope of a building, resulting in physical loss or damage.

It will indemnify the developer for the cost of the repairs to or replacement of damaged property and/or pay to prevent imminent further damage caused by a defect up to the total sum insured, typically the full reinstatement value. It is being used increasingly as a means to improve the saleability of a property.

Interest in LDI on projects involving existing structures has been increasing in recent years. Encouragement from local authorities eager to hit net-zero targets has caused an uptick in refurbishment projects and, consequently, an increase in LDI queries for refurb works.

This is a relatively new form of risk transfer and the number of insurance providers is limited. Marsh's insight on <u>refurbishing existing buildings</u> looks at this in more detail.

Professional indemnity

Following the Grenfell Tower fire in 2017, the professional indemnity (PI) insurance market saw an increase in cladding and fire safety-related claims. This resulted in heightened scrutiny and limitations on coverage for consultants and contractors on their restrictions on PI policies.

As PI is underwritten annually on a claims-made basis, this applied to any new claim or potential claim circumstance advised and reduce the likelihood of a claim being fully, or even partially, paid.

This has increased the risk of claims being denied or inadequately compensated, emphasising the need for enhanced risk management practices in the industry.

Archaeological finds

If ground workers uncover an area of archaeological importance, projects can be delayed

considerably, while experts are brought in to excavate the site and preserve artefacts. For example, Crossrail works were delayed in 2013 when a 14th century, black death-era burial site was discovered in Farringdon, central London. And in 2025, the wall of a 2,000 year old basilica was discovered at 85 Gracechurch Street, an office building in the City of London that was about to be demolished and redeveloped.

Flight risks

As buildings get taller they present greater risks to flight safety as they could come close to flight paths, particularly in London. Cranes involved in the construction can also pose a risk. For example, in 2013 a helicopter crashed near Vauxhall, south London, after colliding with a crane working on St George Wharf Tower.

Tall building risks



"It is important to ensure that your broader risk management and insurance strategy reflects the requirements of the building contracts and sub-contracts."



The risks associated with tall building construction are often greater than those connected with other projects due to the complexities around working at height, the concentration of high-value assets, and the location of many projects.

While mitigation measures should be established before and during the project to mitigate the aforementioned risks, these measures are most effective when used in tandem with a robust approach to risk transfer.

It is important to ensure your broader risk management and insurance strategy reflects the requirements of the building contracts and sub-contracts.

In the context of tall tower construction, the following types of insurance are particularly relevant:

- Contractors all risks: Click the link to find out more about Marsh Specialty's construction insurance facilities.
- Third-party liability/nonnegligent indemnity: Find out how owner controlled insurance programmes (OCIP) incorporate third party liability insurance for owners and developers.
- Delay in start-up: Find out more about the Marsh Specialty Construction approach to <u>delay</u> in start-up insurance (also known as advance business interruption or advance loss of profits insurance).

- Terrorism: Read about Marsh Specialty's geopolitical risks insurance, which includes terrorism cover.
- Right to light: Changes in UK planning regulations could lead to an increase in expensive right to light disputes. Reach out to Marsh Specialty Construction (see contacts below) for more information.
- Environmental liability: The Environment Act 2021, and Biodiversity Net Gain legislation, which came into effect in early 2024, can have profound implications for construction firms. Contact Marsh Specialty Construction to find out how your company could be affected.
- Latent/inherent defects: Click the link to find out how owners and developers are mitigating the rise in structural defects in buildings.
- Property all risks: This insurance covers a variety of risks, including accidental damages, burglary, fire, and natural disasters.
 Contact your Marsh Specialty client manager to find out more.

Conclusion



It is critical at the outset of a construction project to embrace a more holistic approach to risk management that both implements strong risk mitigation strategies combined with appropriate risk transfer solutions.

How can we help?

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M: +44 (0) 7385 403 742 sean.worricker@marsh.com The shortage of land available for building in urban areas of the UK, combined with the demand for residential spaces, student accommodation, and offices that serve their greater community, presents a unique challenge for owners and developers.

In recent years, traditional challenges, such as skills shortages, logistical issues in terms of getting materials to site, and the difficulties around building in confined areas, have been compounded by new risks. These include changes to building regulations, a drive for more sustainable buildings.

In some cases, the risks associated with constructing tall towers are not considered sufficiently until it is too late. Owners, developers, and contractors must consider this highly specialised area of risk because if something does go wrong during the construction phase, it has the potential to be catastrophic, from a damage, liability, and delivery perspective.

It is critical at the outset of a construction project to embrace a more holistic approach to risk management that both implements strong risk mitigation strategies combined with appropriate risk transfer solutions.











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