Tall Buildings:



A Policy Framework for Responsible High-Rise & Better Density

lke ljeh

Forewords by Griff Rhys Jones and Duncan Wilson CBE



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About the Author

Ike Ijeh is a practising architect, writer and author of two books on architecture, Designing London: Understanding the Character of the city (Lund Humphries, 2020) and The 50 Greatest Architects: The People Whose Buildings Have Shaped Our World (Arcturus, 2021). He was also a co-author of Architecture Beyond Criticism: Expert Judgement and Performance Evaluation (R outledge, 2014). As well as establishing his own architecture practice and founding original London architecture walks provider London Architecture Walks, Ike has been an architecture critic for two of the UK's leading architectural trade titles and has lectured on the subject extensively in the UK and abroad. He was the winner of the 2018 International Building Press (IBP) Architecture Writer of the Year and received an IBP commendation in 2020. He was also nominated for the Professional Publishers Association (PPA) Writer of the Year Award in 2016 and has been on the judging panels of some of the UK's foremost architecture awards. He has sat on the design review panels of two London boroughs and is a former trustee of the Hackney Historic Buildings Trust.

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Endorsements

"We're already introducing design codes for two-to-four storey buildings to make our town and cityscapes more beautiful, so applying the same principle to tall buildings makes sense too. It would be denser, making better use of scarce building space. It would make sure tall buildings look good alongside the architecture around them, complementing the best of what's there already instead of fighting against it. And it would make sure tall buildings have the consent of the communities around them, rather than anywhere-ville international-style intruders that local residents hate."

John Penrose MP, Former Minister for Tourism & Heritage

"The findings in this report echo many of my own frustrations with the increasing use of tall towers to address housing issues. Many voices have rightly raised the need for green belt protection, but in urban centres councils are blotting out the 'blue belt' making clear views of the sky an impossibility. For most communities the decisions on the height of tall towers are made in council chambers whilst its residents that have to live with these monolithic structures overshadowing their lives. This report lays out smart recommendations to give people a voice in decisions on planning that will affect them for generations to come whilst giving practical recommendations to help increase opportunities for home ownership, returning power to local communities, and helping design beautifully across every town and city."

Dean Russell MP, Watford

"Many of us have watched in puzzlement and dismay as giant buildings have overwhelmed London with a brutality not seen since the rash and muchregretted tower-block frenzy of the 1960s. Now the problem is spreading to other cities too. I personally would pull them all down if I could, but, after a carefully-presented and well-argued explanation of what happened and how, Policy Exchange offers thoughtful ideas about how this plague of towers can be brought under control without ignoring the practical needs of our cities for housing and offices. Everyone should read it."

Peter Hitchens, Journalist, Author, Broadcaster

"It is so welcome to see a report finally showing the damaging effects particularly in London of tower block buildings. In Waterloo and Vauxhall along with local communities I fought many planning applications which would destroy the character and views of historical and beautiful areas particularly along the riverside. Local Councils too often put financial gain as their priority and paid no heed to the design and beauty of the building. Action must be taken now and this report hopefully will help to make that happen urgently."

Baroness Kate Hoey, Former Vauxhall MP

"Kensington & Chelsea has shown over the years that high density can be achieved without having recourse to tall buildings. This timely report should provoke a debate on when and whether tall buildings are necessary and desirable and who should be involved in approving them".

Lord Daniel Moylan, Former Design Champion and Deputy Leader of the Council, Kensington and Chelsea

"Londoners were never asked whether they wanted lots more tall buildings and if they had been I expect they would have said - a few more tall office blocks won't do any harm in the City, Canary Wharf or Vauxhall, but we're not going to solve the housing crisis with tower blocks. We built too many tower blocks in the 1960s and they are now recognised to have been a mistake. Let's not repeat the mistake now. As the Georgians showed, you can still have high densities with mid-rise housing and people like to live in Georgian-style terraces and squares. Policy Exchange have put forward a sensible planning framework for buildings over 60m, which would be a great improvement."

Martin Linton, Former Battersea MP

"Ten years have gone by since the early, highly acrimonious debates regarding the unexpected forecast of an imminent explosion of Tall Buildings London. In ten years London's skyline has been transformed forever by an unrecognisable chaotic jumble of mediocre skyscrapers, bunched together into erratic 'clusters' that overshadow all the capital's most cherished landmarks. This report offers a much-needed, in-depth analysis of how and why this has been allowed to happen. While it is obviously much too late to re-wind the clock, one can only hope that these insightful and wise words will be shared by all those in a position to stop the folly of building so inappropriately in one of the world's greatest cities. The aim must now be to enact the many positive suggestions contained in this document, returning to building densely and with care in line with London's unique historic architectural DNA."

Barbara Weiss, Architect, Co-founder, Skyline Campaign

Foreword I

By Griff Rhys Jones, Actor, President of the Victorian Society

Some people clearly dream of creating a new Manhattan in their old backyard - mixing Corbusier, a bit of Harry Hyams and a hell of a lot of cement and glass - to make a fantasy city of towers. These are developerpeople, naturally, but they are often abetted by planning-people and political-people. They should all read this.

The harsh truth is that when sites get fiercely expensive to buy, investors (the real tune-callers here) go upwards in search of profit (or even, these days, outwards, with gross, distended "tulip" and "walkie talkie" shapes seeking few more lucrative square feet at high level.) It's driven by greed. Greed for on-paper, square-meter returns.

Wall Street originally grew extra tall in search of an exclusive address, not a view and certainly not a public amenity. Steel girders and telephones made skyscrapers possible. More bucks provided the fuel. Phallo-centricity made it fashionable. And why not? Swooping into a close-knit sky-scraping, Spider-Man, city-centre, like Toronto or Vancouver, or even the City of London (as seen from the M11) has a certain DC comic glamour. It's a power-kick. Like approaching a distant fortress or castle. But, trudging on foot, along the grinding, grid freeways, beneath the towering blocks of, say, central Auckland (one of the grimmest of high-rise urban centres) is a dire experience.

There are the block-crowded centres – clusters where the streets ought to work, but seldom do - but much worse is randomly opportunistic, every man-architect-developer-council for themself, high-rise sprawl. Randomly dotted high-rise has proved to be a disaster. The blocks lose aesthetic appeal and become a disparate confusion - a mess to live in, a danger to their occupants (if disaster strikes) and an inefficient solution to density problems. I urge you to read this essential Policy Exchange report and find out why.

London is particularly plagued by silly aggrandisement. Many of the latest, high-rise follies have all the tacky appeal of a footballer's kitchen. The City of London is a shiny, crooked wall. It is difficult to distinguish where one unimaginative, glass-clad slab ends, and another begins. And that's when billionaires and senior architects are at work. Cross over the river and the towers resemble blown up carpark bollards. It is still possible to gaze out over Paris and distinguish the important buildings of the urban fabric. Not in London.

Many, London towers, in fact, date back to a redundant mid-twentieth century planning initiative. Following the lead of futurists, our major, central, traffic intersections were designated high rise free-for-alls. Centre Point, the Euston Road and Tottenham Court Road intersection, the Old Street Roundabout and other crossroads were licenced to go up. They still are and still do.

In the sixties, people were going to drive along six lane highways and then park underground: living in dormitories and flowing to work in the paper cities of the future. But cities of the actual future no longer want cars. The most egregious result of the out-of-date, anti-pollution, academic thinking of the early Twentieth century is the energy gobbling rush-hour – a monstrous expression of the past that still strangles the greatest cities of the world.

In London, we stopped building planned freeways after the Westway anyway. There aren't any swooping approaches, only smog, noise and chaos, and we have all discovered, painfully slowly, that our urban value and continuity, our story, character and quality of life all lie in our imaginative foundations - existing narrow streets, walkable centres, characterful heritage and modest infill, and, let's face it, the bicycle. We want to live, walk and work right across the urban fabric. We need to throw away the stale doughnut effect and the Gadarene daily commute.

As this Policy Exchange paper demonstrates, and as sane planners and wise commentators like Simon Jenkins have argued for decades, the modern intelligent response to density is "mid-rise". Not ticky-tacky, semi-detached sprawl or giant accommodation structures, but, instead, a city-wide drive towards six or seven stories which, God forbid, might even nestle around that most graceful of British urban inventions - the garden square.

Architects seem inculcated to hate this solution. Where is the egotistical grandiosity in it? The mayor, the Corporation and Network Rail appear to be determined to make things worse. They plan a Shard towering over every station in London, no matter how dignified and historic. It's why we have stop the current plan to swamp Liverpool Street Station, and why we should pay close attention to Ike Ijeh's important, well-researched fact-based report for Policy Exchange. There is simply no inherent "logic" in reaching for the sky. This paper explains why. We need to reset and understand the future. Research like this will help us do that. I salute it.

Foreword II

By Duncan Wilson CBE, Chief Executive Officer of Historic England

Increasing public and political attention is being paid to the quality of our places, many of which have historic buildings at their core. The character of these places can be significantly changed, and in some cases damaged, by the development of tall buildings. This is not just a question of architecture and design, but of their impact on people and communities – an impact not just removed by a roof garden or a viewing platform. Our cities are for everyone and contribute to people's wellbeing, prosperity and quality of life. We need modern vibrant cities which successfully combine change with layers of history, and giving depth and integrity to identity. We know this appeals to burgeoning creative industries, many of which find strong associations with historic buildings and places.

With this in mind, this report by Policy Exchange is a very timely prompt that we need a serious strategic discussion of where tall buildings belong, and where they don't. Other cities in Continental Europe manage this successfully, combining the need to allow for economic growth with the need to retain the character of their historic districts. These places are one of this country's greatest assets. We mustn't let them be eroded, carelessly sited tall building by tall building, until we wake up to find they are lost.

Tall buildings too are part of this country's architectural and social history. Many of the best of them are already listed. But the pressure to build them wherever the developer happens to have acquired a site is intense – and the only way of giving greater certainty (which most developers welcome) is by setting out clear planning assumptions in advance. Well-designed mid-rise residential buildings can deliver high densities without the damaging effects of badly-sited towers.

There is some arresting data in the report. The Tables on p19 and p25 showing (respectively) London's tallest buildings since the Norman Conquest, and the number of London tall buildings by decade on p.25 adds valuable and rather alarming historical context, as does the Table on p19 in relation to buildings in Manchester and other cities outside London. They all show a massive and mostly unplanned acceleration in the rate of change.

Policy Exchange's report is therefore valuable contribution to the debate around one of the most important issues affecting our towns and cities today.

Executive Summary

Britain is in the grip of a housing crisis. And one of the key medicines prescribed to cure it is likely to have made it worse. Since the turn of the millennium Britain has developed a mania for tall buildings. While, unsurprisingly, the epicentre of the trend has been London, significant aftershocks have been felt as far away as Manchester and Leeds. To construct a sense of the scale and rapidity of change, one must consider that in 2000 Britain had just 13 tall buildings taller than the height of St. Paul's Cathedral (111m). Today it has 129 with 107 of them in London.

Most of these new towers have been residential. In London, residential towers make up 67% of towers above 111m, it was just 33% before 2000. And a significant motivating factor for these towers, or so we've been told, is that they are urgently needed to help address the housing crisis. But new research by Policy Exchange proves that this is simply not the case.

In London, the 68 residential towers above 111m that have been added to the city's skyline since 2000 have provided over 22,000 housing units. But shockingly, just 6% of these have been affordable and around 0.3% has been social housing. The vast majority of the housing provided has been luxury with over one third of it developed by non-UK investors. Over the same period, the number of households on London's housing waiting lists has risen by 18%. And yet ironically, our recently conducted polling indicates that provision of affordable housing would be the most likely attribute to encourage the public to support tall buildings.

Equally, there is an erroneous conflation between high-rise and highdensity with the common misconception that the former is the best way to deliver the latter comprehensively, ignoring the fact that successive waves of academic research has proved that mid-rise developments are often the most efficient means to optimise density and maximise housing supply. Abel and Cleland House is a thirteen-storey modern mansion block in Westminster. Yet it contains more than twice the density of the infamous Brutalist Trellick Tower in nearby North Kensington which, at 32 storeys, is almost three times its height.

And to add insult to injury, despite the hundreds of tall buildings London has erected in recent years, their residential impotence is proven by the fact that London's density levels still remain a fraction of cities like Paris and Barcelona. Ironically, these are cities that have largely rejected the high-rise aesthetic (at least from their historic centres) in favour of prodigious mid-rise development.

As well as diverting attention away from the opportunities presented by these potentially more efficient and contextually sympathetic forms of mid-rise housing, the indiscriminate proliferation of tall buildings has also caused grave harm to the historic fabric in several cities, especially London and Manchester. Historic character, cherished views and the setting of key heritage assets have been recklessly squandered and sometimes wrecked in favour of inappropriate, and poorly designed high-rise development. The threat of tall buildings was also partially responsible for Liverpool being dramatically stripped of its World Heritage Site status in 2021, only the second time in UNESCO's history this has happened.

Extensive polling carried out by Policy Exchange shows that 71% of the public believe that tall buildings should not be permitted to interfere with historic views and 41% believed that London's skyline has been worsened by tall buildings, with just a quarter believing the opposite. Out of Rome, Paris and London the public also selected Rome's skyline arrangement (where tall buildings are virtually non-existent) as their favourite, with London, (where tall buildings are now indiscriminately spread throughout much of the city), coming last. In 2015, one of London's most prolific tall buildings in recent years, the Walkie Talkie, won the annual Carbuncle Cup award for being the worst building in Britain.

All of this also presents profound democratic problems. The government has made repeated commitments to give residents a greater say in the developments in their neighbourhoods and communities. But tall buildings persist as one area where the public's frustration and disaffection at its perceived exclusion from the decision-making process is palpable. Our polling showed that 64% want a greater say on whether tall buildings should be allowed in their city with 56% believing there should be new planning regulations to more effectively handle the integration of tall buildings into their surrounding fabric. 56% would also welcome the opportunity to vote in a formal public poll to help determine whether tall buildings should or shouldn't be granted planning permission.

Planning is at the crux of the issue because all of the aforementioned problems exist as a result of one intractable planning negation at their core: the failure to establish and implement a coherent, comprehensive, city-wide tall buildings policy to more intelligently guide and control the development of tall buildings in our cities.

This is exactly what this paper proposes; a new tall building policy to prioritise beauty and design quality, ensure that high-rise development is of exceptional design quality, does not harm heritage, protects views, more sensitively determines location and gives public opinion a louder voice. Crucially it will also encourage the adoption of alternative mid-rise housing types that are capable of delivering the higher densities, increased housing supply, vibrant streetscapes, contextual engagement and human intimacy that tall buildings are strategically ill-equipped to bestow.

In doing so, the new Tall Buildings Policy can play a meaningful rather than performative role in addressing Britain's housing crisis.

The recommendations of this report are included overleaf.

Recommendations

- 1. Government should legislate to require that all local authorities in England and Wales that wish to consider planning applications for multi-storied buildings over 60m (197ft) in height must first have an approved Tall Buildings Policy in place. Compliance with Tall Building Policies will become a mandatory, statutory planning requirement for any tall building proposal over 60m across England and Wales.
- 2. A Tall Building Policy could either be part of the Local Development Plan or a separate statutorily enforceable document. Councils that do not produce this plan would lose the ability to consider planning applications for tall buildings over 60m in height. Councils that did not wish to have tall buildings within their jurisdiction would not be required to have a Tall Building Policy.
- 3. As with local development plans, a Tall Building Policy would have to be submitted to and approved by the planning inspector before they become statutorily enforceable. In order to gain this approval, a Tall Building Policy would be required to:
 - a. Explicitly demonstrate how the submitting authority has considered and met six Requirements that must form the core of the TBP: Location, Beauty, Heritage, Views, Public Consultation and Alternative Viability.
 - b. Specify exactly where tall buildings should and should not be located.
 - c. Establish a new triple-tier protected views system similar to the grade listings system applied to historic buildings.
 - d. Mandate new public votes on tall building proposals and set out the voting arrangements and majority required.
 - e. Introduce new beauty & design quality guidelines
- 4. Tall buildings should be banned from Conservation Areas & a new protective buffer zone to be installed around them. The only exceptions should be Conservation Areas in which a tall building was already present on the date of their designation.
- 5. All tall building proposals should be required to be put to a public vote as a mandatory part of the statutory consultation process and prior to the submission of the planning application. The vote should not be binding but must be taken into account by the local authority when considering whether or not to grant planning permission.
- 6. In London the statutory body charged with producing the

Tall Building Policy would be the Greater London Authority. Recognising the impact of tall buildings both on their local borough and the city as a whole, tall buildings in London would be subject to a 'Local Lock', whereby majority support would be required in both the Borough, and in London as a whole, to demonstrate that a tall building had public support.

7. To support mid-rise housing, permission-in-principle should be automatically granted to alternative mid-rise housing schemes that meet certain criteria. Tall building developers should also be required to prove that proposed developments deliver greater density than alternative mid-rise housing.

Introduction

In London, a traditionally low-rise city, there are now 107 buildings taller than St. Paul's Cathedral. Before the year 2002, there were just twelve. So effectively, over the past 22 years, London's vertical profile and urban form have changed at a more startling rate than at any point during the 2000 years that preceded it.

Leaving aside the relative merits and demerits of this transformation for now, this represents an extraordinary visual and environmental shift in an incredibly short period of time. It took over 400 years to expand London's population from the 600,000 it was in the year 1600 to the 8.9million it is today. It has taken just a fraction of this time to effectively change London from a city primarily modelled on the traditional low to mid-rise aesthetic of a typical historic European city to the high-rise aesthetic of a modern North American or Asian metropolis.

Of course, perspective, as ever, is key. There are 102 skyscrapers above 198 metres in New York City, there are only 12 (completed) in London. But New York is a city where the skyscraper is woven into its urban and cultural DNA, it is an intrinsic part of its character, heritage and identity. Whereas in London, a city which had only one building above 198m before 2002 and whose architectural identity is traditionally centred on residential terraces and squares, the transformation has been infinitely more traumatic.

The poor design quality of many of its tall buildings denigrates local character and undermines London's status as a world city, ridiculing earlier municipal commitments that tall buildings of only the highest architectural quality would ever be permitted. The clumsy and often harmful integration of tall buildings into London's historic fabric has been similarly disastrous with strategic views, historic streetscapes and key heritage assets grievously undermined by the reckless and indiscriminate positioning of tall buildings.

And London's planning system, traditionally tuned towards empiricism, has proved too vague and inconsistent to control the prevailing chaos, passively overseeing an ineffectual statutory framework driven more by opportunity than objective and standing idly by while London's desecrated skyline lurches helplessly from one high-rise disaster to another.

And perhaps worst of all, the single social benefit that tall buildings promised – more homes and an alleviation of the housing crisis – has barely been met. Instead and with almost cynical aplomb, London's residential skyscrapers have hurled thousands of new housing units onto the market, the only problem being that the vast majority of them are luxury housing with social and affordable housing occupying an infinitesimal percentage of the total provided.

Many of these problems have been replicated in cities across England with Manchester in particular witnessing its own skyscraper boom and all the tension and acrimony that comes with it. This need not be the case. Skyscrapers can be symbols of economic regeneration and post-industrial rebirth, as is the case in London's Docklands. Moreover, well-designed and sensitively located tall buildings can be dramatic, exciting and exhilarating additions to the urban landscape, their soaring height unlocking the same primal preoccupations with celestial ascendancy triggered by Gothic cathedrals and instilling a sense of awe and wonderment at the technical and engineering prowess of mankind's achievements.

Fireworks too can be beautiful. But in the same way that no responsible adult would invite unsupervised children to detonate them in alone their locked bedrooms, tall buildings are too powerful and volatile to be left to their own devices, especially in historic cities. They need a firm hand to steer their trajectory and ensure that what starts as excitable ambition does not end up as unintended harm. That firm hand is the Tall Buildings Policy this paper proposes. Not a municipal prohibition to ban tall buildings but a statutory framework to guide and control their development and prevent the wanton harm we have seen them inflict in recent decades.

Regarding this harm, there is an argument voiced by some that the skyline and character of cities like London has already been so violated and despoiled that there is little point at this latter stage in trying to offer remedial ministrations. The horse is said to have bolted from the open stable door long ago. But defeatism plays no role in success. And if we want our cities and urban environments to succeed and if we want them to be beautiful again then it is our responsibility to attack rather than accept the ugliness and disorder that corrupts them.

In 2002, Parliament's Urban Affairs committee published a report arguing that "the increase in proposals for tall buildings only underlines the need for national policy advice to local authorities" and called for a "suitable planning framework for tall buildings if we are to avoid past mistakes." 22 years later, both the advice and the framework are finally here.



SECTION I: The Context

1.0 A (British) History of Tall Buildings

Many centuries ago the tallest building in the world wasn't in New York, Dubai or Kuala Lumpar, it was in London. From 1221 until 1311 the 150m-tall spire of Old St. Paul's Cathedral was the tallest built structure ever known to mankind. It was taller than the Great Pyramid of Giza and significantly taller than either Centre Point or the 43-storey Barbican residential towers in central London are today. The cathedral only lost its crown with the completion of Lincoln Cathedral's 10m taller central spire in the early fourteenth century, an accolade which, incredibly, the humble Lincolnshire county seat was to hold for most of the next six hundred years.

But while it is true that London's historic status as one of Europe's key capitals and the world's first megalopolis meant that it has never been a stranger to tall buildings, up until relatively recently these were rare and symbolically noteworthy interruptions in an otherwise overwhelmingly low-rise cityscape.

1.01 Roman & Saxon London (AD43-1066)

London as a Roman city was nothing like Ancient Rome, it was a modest, village-like settlement of predominantly one and two-storey buildings. Arguably the first recorded building in London's history to aim for scale in both size and height was London's Roman Basilica and Forum. Built on the site of today's Leadenhall Market, it was originally constructed in AD 70 shortly after London's Roman foundation then dramatically expanded in AD 90-120. Effectively serving as the capital's administrative base with law courts, assembly halls and a treasury, it covered a sprawling two-hectare site and was up to three storeys high.

Matching its height nearly six centuries later was the first of the five versions of the building that was to become the city's totemic vertical barometer, St. Paul's Cathedral. The first version of the cathedral was built by the first Bishop of London, Mellitus, in 604 as a barn-like Saxon church. It was rebuilt and enlarged twice over the next four centuries, consolidating its position as London's tallest building, an accolade that was to be violently upended, along with virtually every trace of Saxon England, by the Norman Conquest.

1.02 Medieval London (1066-1600)

Fig. 1.1 Old St. Paul's dominated London for almost 600 years and at various points in the fourteenth and sixteenth centuries was the tallest building in the world



William the Conqueror, a master tactician acutely aware of the violent manner in which he had seized power in 1066, immediately set about building a string of defensive castles across the country to shrewdly ensure that no future aggressor could mimic his own invasion. The most strategically significant of these is what is commonly thought of as London's first tall building, the Tower of London. Begun in 1078, the nucleus of the sprawling medieval fortress remains the White Tower, which, at four storeys and 27m high, dominated the capital and would do so for much of the next century.

	Building	Tallest Tenure	Built	Height (m)	Floors	Function	Style	Historic England Listing
1	White Tower,	1098	1078-	27	4	Royal	Norman	Grade I
	Tower of London	-1310	1098					
2	Old St. Paul's	1310-	1087-	150	1	Religious	Gothic	Grade I
	Cathedral	1666	1314	150				
3	Southwark	1666-	1106-	50	1	Religious	Gothic	Grade I
	Cathedral	1710	1420	50				
4	St. Paul's	1710-	1675-	111	1	Religious	Baroque	Grade I
	Cathedral	1963	1710	111				
-	Millbank Tower	1963-	1959-	118	33	Office	Modern	Grade II
5		1964	1963					
6	BT Tower	1964-	1961-	177	37	Office	Modern	Grade II
		1980	1964					
7	Tower 42	1980-	1971-	183	47	Office	Modern	Unlisted
7		1991	1980					
8	Canary Wharf	1991-	1988-	225	50	Office	Modern	Unlisted
	Tower	2012	1991	235				
9	The Shard	2012-	2009- 2012	310	72	Mixed-Use	Modern	Unlisted

TABLE 1: London's Tallest Buildings Historically*

* Orange shading refers to buildings completed before 2000.

In 1087 the third Saxon St. Paul's Cathedral burned to the ground. Rebuilding began immediately but was not completed until 1310, although its central tower had been topped out in 1221. But the soaring new Gothic cathedral now reflected London's established importance as a trading hub and marked a dramatic upgrade to its humble Saxon predecessors. With a spire extending 150m high it was not only the tallest building in the world but the tallest building that, to date, the world had ever built. It was all the more remarkable an achievement because English Gothic cathedrals typically emphasised length while it was their French and German equivalents that tended to prefer tremendous height. Accordingly, Winchester Cathedral, begun a year after the White Tower, today remains the longest medieval church in the world. But its 24m high nave is half the stupendous height of that of Beauvais Cathedral in southern France, which remains the tallest nave in the world.

But soon after St. Paul's was finished, the completion of Lincoln Cathedral in 1311, with its 160m high spire, saw the crown for the world's tallest building abruptly uprooted to the East Midlands. When Lincoln's fragile wooden spire was blown down in a storm in 1549, London regained the title. But again, the elements conspired to rob the capital of its crown and barely a decade later in 1561 the tower of Old St. Paul's was destroyed by lightening. While Lincoln Cathedral remained the tallest building ever built until the completion of the tower of Ulm.

Fig. 1.2 For almost 250 years Lincoln Cathedral was the tallest building in the world



Minster in southern Germany in 1890, the 1561 storm saw the title of world's tallest building pass to St. Mary's Church in Stralsund, northern Germany, (its own tower felled by fire a century later) never to return to Britain.

1.03 Stuart & Georgian London (1600-1837)

By the time Old St. Paul's was destroyed in the Great Fire of London in 1666, London had significantly expanded into a sprawling capital with mainly wooden buildings extending up to three or four storeys in height. But so appalled was the government and King Charles II by the speed with which London's wooden buildings had enabled the conflagration to spread, that the Great Fire of London ushered in what was to become one of the most influential pieces of legislation in British construction history¹ and one that still shapes our national urban environment to this day, the London Building Act 1666.

London's first Building Act had been passed in 1189 but it and its periodic successors were largely ignored by rapacious builders and landlords eager to expand the bustling medieval metropolis. The 1666 Act was the first to became compulsory and introduced all manner of rules (and punishments) which are still familiar to us today. These included the banning of thatched roofs, the banning of timber facades in favour of brick and stone and the effective introduction of the process by which the state officially documents and verifies the safety, structure and services of buildings - which we now know as building regulations. And with regard to building heights, residential storey-heights were limited to four storeys and a garret, a stipulation that was to remain in place for centuries. Accordingly, what is effectively London's first tall buildings policy can be found in the twelfth clause of the Act below:

"and be it further enacted that all Houses of the fourth Sort of Building, being Mansion-houses, and of the greatest Bigness, not fronting upon any of the Streets or Lanes as aforesaid, shall bear the same scantlings as in the Table are set down for the same; and that the Number of Stories, and the Height thereof, be left to the Discretion of the Builder so as he exceeds not four Stories."²

At the time of the Act London's low-rise skyline was punctuated by lofty stone protrusions of national significance like Westminster Hall, Westminster Abbey, the Guildhall, Southwark Cathedral and the Monument built in 1677 to commemorate the fire. At 62m high, the Monument remained the tallest monument in London and Paris until the completion of the 330m Eiffel Tower in 1889. Today it remains the tallest free-standing stone column in the world³. Even after its tower collapsed St. Paul's had remained London's tallest building, a position it retained after Sir Christopher Wren rebuilt it from 1675-1710 with his magnificent dome, still the second largest cathedral dome in the world after St. Peter's in Rome.

At 111m high, the fifth, current and hopefully final St. Paul's was to remain the tallest building in London for almost 300 years. Wren also supplied a constellation of baroque church steeples to go around it and in doing so created the skyline image that was to indelibly define the city up until the Second World War and was to beguile visitors from Canaletto to Peter the Great. In fact, the latter was so enchanted by what he'd seen when he visited William III in London in 1698 that on his return to Russia

- 1. https://www.building.co.uk/focus/how-thegreat-fire-shaped-modern-london/5083502. article
- 2. The Rebuilding of London Act 1666 (18 & 19 C. II. c.7.), XII
- https://www.themonument.info/the-project.html#:~:text=Sir%20Christopher%20 Wren's%20flame%2Dtopped,stone%20column%20in%20the%20world.

he set about creating a new city whose skyline was heavily inspired by the urban vision he'd witnessed in England. That city is today known as St. Petersburg.

Fig. 1.3 With its domes, masts and spires set against a river foreground, the creation of St. Petersburg was inspired by 17thc. London



1.04 Victorian London (1837-1901)

It was during the nineteenth century that London, transformed by the Industrial Revolution that had begun in the late eighteenth century, emerged as the world's largest city, its first megalopolis. Understandably this placed tremendous pressure on its building stock and a prodigious Victorian building boom saw its horizontal expansion matched vertically. While London remained a predominantly low-rise city, new types of buildings, such as office blocks, flats and mansion blocks, established a new mid-rise typology that could stretch up to nine storeys and sometimes higher. The invention of the lift in the middle of the nineteenth century and the steel frame towards the end of it were innovations that were to give birth to the skyscraper in America, a building type that was conspicuously absent from England or Europe's urban fabric until the twentieth century. But even without skyscrapers, these new technologies greatly assisted the pursuit of greater height.

But this was not without controversy. As the storey height limits specified in the 1666 Building Act referred solely to houses, new residential typologies like flats and mansion houses had been able to easily sidestep its restrictions and those of its notable 1774 successor. But things came to a head when, in 1873, the controversial Queen Anne's Mansions block was built on the site of today's Ministry of Justice overlooking St. James's Park. Eventually rising to a then towering height of 30m and fourteen storeys and becoming Britain's tallest residential building, it tested both planning law and public patience to their limits with even Queen Victoria

complaining that it blocked her view of Parliament from Buckingham Palace. The government eventually responded and as a direct result of the development, the 1894 London Building Act imposed a height restriction of 80ft (24m) on all London buildings, the first time such a restrictive measure had ever been in place. But it would not last for long.

1.05 Modern London (1901-2000)

Fig. 1.4 London's skyline in the 1910s still contained an incredibly visually coherent composition of spires, turrets and towers surrounding the dominant dome of St. Paul's



Even after the ravages of the First World War, London remained the British Empire's teeming imperial hub and, up until its population was surpassed by New York's in 1925, the largest city in the world. Accordingly, its building boom continued in force with the 1894 Building Act's height restrictions being successively and surreptitiously relaxed for Art Deco office blocks like 43m Adelaide House in the City of London (1925), 53m 55 Broadway (1929) and 64m Senate House (1937). At fourteen storeys and with the same steel frame construction deployed on American high-rises of the same period, 55 Broadway is sometimes referred to as London's first skyscraper⁴ and ironically sat opposite the notorious Queen Anne's Mansions, itself ignominiously pulled down in 1973.

The 1939 London Building Act watered down height restrictions even further by incorporating a Pavlovian yet quintessentially British set of statutory contradictions and loopholes through which a determined squadron of compromises and exceptions were able to easily advance. On one hand the official proscription against buildings over 30m tall remained. But the same Act itself also included stricter regulations about how fire safety is enforced in all buildings over 30m in height and larger buildings over 25m in height⁵.

Yet in growing recognition at the ferocious pace of redevelopment London was experiencing in the 1930s, (London's population was the

- https://www.cityam.com/londons-first-skyscraper-55-broadway-to-be-converted-into-luxury-hotel/
- https://www.constructionnews.co.uk/sections/news/london-building-act-would-haveaverted-grenfell-disaster-22-06-2017/

highest it had ever been in 1939 and was only exceeded, after decades of post-war decline, in 2019⁶) 1938 did see the introduction of an important statutory tool in regulating tall buildings. St. Paul's Heights established eight protected viewing corridors around St. Paul's in which high-rise development was restricted in order to preserve views of the cathedral. Although the Heights were at this point little more than a gentleman's agreement between developers and the City of London Corporation, their introduction marked an important milestone in London's tall building development history and are the earliest example of the urge to protect views of St. Paul's being erroneously conflated with a strategic tall buildings policy for the capital as a whole, a reductive psychological predisposition that would go on to have a major impact on London development in decades to come.

After extensive Second World War bomb damage particularly in the City of London, post-war rebuilding began in earnest in the 1950s. But it wasn't until the early 1960s that skyscrapers came into London in force and changed forever the basic tenets underpinning skyline and urban form that had existed in the capital for almost two millennia. In 1963 then Labour leader Harold Wilson famously spoke of the "white heat of technology" burning through modern Britain⁷ and in building form this was effectively encapsulated by tower blocks. And after having its height 'restrictions' stretched to the limits of credulity, the 1939 London Building Act was finally amended to remove them entirely and the floodgates opened.

In 1963 119m high Millbank Tower finally ended St. Paul's Cathedral's near 300-year reign as London's tallest building and was followed by scores of similar towers primarily concentrated in central London and London's financial district, the City of London. The tallest of these, the former BT Post Office Tower of 1964, was to spend the next 16 years as Britain's tallest building.

However, in marked contrast to pre-war high-rises, this new wave of tall buildings was often met with intense controversy and protests within the press and amongst the public. Fears accelerated that London's historic character was being irreparably harmed by these incongruous new additions and we saw the beginnings of the fractious height versus heritage debates that are now such a familiar feature of Britain's contemporary urban lexicon. The birth of the conservation movement in the early 1970s was largely indebted to fears that historic assets were being demolished or overshadowed to make way for tall buildings.

However, it wasn't conservation that eventually ended the skyscraper boom of the 1960s and 70s, it was post-modernist architecture. Modernism began to fall out of favour from the early 1970s onwards and its postmodernism replacement, haunted by the failure of so many public housing projects in which tower blocks had visibly featured, sought a more conciliatory relationship with the past and a less abrasive dialogue with its context.

By 1980 the 183m former NatWest Tower in the City had replaced the BT Tower as Britain's tallest building and, at the time, was the tallest

^{6.} https://trustforlondon.org.uk/data/population-over-time/

https://blogs.bl.uk/sound-and-vision/2023/10/recording-of-the-week-harold-wilsons-1963-pledge-to-harness-thewhite-heat-of-a-scientific-revolutio.html

cantilevered building in the world⁸. But in many ways it was the last tall building of its generation. As Fig. A1 indicates, ten tall buildings above 111m had been built in London during the 1960s and 70s, but over the subsequent two decades, only two more would be added. The NatWest Tower being one and in an example of the extent to which postmodern historicism had now captured the architectural zeitgeist, Canary Wharf Tower, a skyscraper topped by an Egyptian pyramid and loosely based on the proportions of Big Ben, overtook it as Britain's tallest building in 1992.

FIG A1: Number of London Tall Buildings (over 111m) By Decade



In a further indication of the extent to which tall buildings had seemingly fallen out of favour, in the same year St. Paul's Heights was finally elevated from a gentleman's agreement to enforceable statutory policy and renamed the London View Management Framework (LVMF). And in the 1980s the famous London Building Acts that had effectively guided the capital's urban growth since 1666 were finally superseded by the Approved Documents of the national Building Regulations we recognise today. Which, as is still the case today and unlike the Building Acts that preceded them, don't even reference tall buildings from anything other than a fire escape perspective.

The final nail in the tall buildings coffin came in the form of advice to Parliament from the London Planning Advisory Committee (LPAC). The LPAC was established after the abolition of the Greater London Council in 1986 and was responsible for strategic planning guidance across the capital. In 1998 it undertook a major study of tall buildings after which it advised Parliament of the following:

"There is no overwhelming evidence to suggest there is a need for a radical change in London's skyline through the addition of high buildings in order to secure, sustain or enhance London's importance as a World City or to create a new image of London for Londoners or the world."⁹

The conclusion was clear, tall buildings were no longer welcome. As the 20^{th} century closed, it looked as if London's intemperate love affair

 https://www.gla.ac.uk/media/Media_399725_smxx.pdf

^{9.} Memorandum by English Heritage to Parliament (TAB 18), January 2002

with skyscrapers was over.

1.06 Contemporary London (2000-Today)

Fig. 1.5 & 1.6 The vast high-rise transformation of London's skyline during the 21st century is evident in how the view east from Waterloo Bridge has evolved from 1998 (top) to 2021 (bottom)





And yet within just 24 years from the start of the millennium to today, London would go from having twelve buildings taller than St. Paul's Cathedral to 107. There are three main reasons for this extraordinary change. The first and most significant was the creation of an historic new addition to the capital's statutory infrastructure, the Greater London Authority and the office of the mayor. In 2000 London governance was devolved to these twinned municipal bodies in a symbolic political repudiation of the GLC's abolition fourteen years earlier.

The first mayor of London for two terms, Ken Livingstone, was a prolific and unrepentant supporter of tall buildings and not only did he very subtly but conclusively reverse the LPAC's damming guidance on tall buildings, (the LPAC had been subsumed into the GLA in 2000) he incorporated it into the document that has served as London's de facto statutory planning manual since he introduced it in 2004, the London Plan. He also narrowed the London View Management Framework viewing corridors reducing the protections afforded to St. Paul's and other key London landmarks.

These measures were consistently met with vociferous opposition from heritage campaigners and Livingstone's abrasive style (he pithily dismissed his opponents as the "Heritage Taliban¹⁰") set the scene for the fierce acrimony and dispute that has defined the issue of tall buildings in London ever since. But Livingstone's enormously transformative impact has been clear, not only did his two mayoral successors largely follow his approach to tall buildings (despite occasional electoral pledges to the contrary), he also left an indelible impact on London's urban form. Under his tutelage, London built more towers in the first decade of the 21st century than it had constructed in the previous five decades, a rate of development that continues to this day. (See Fig. A1)

The second reason London's attitude to tall buildings changed was the City of London. London's oldest district had embraced tall buildings in the 1960s but it did so with even greater enthusiasm under the City's chief planner from 1985 to 2014, the combatively charismatic Peter Rees. Like Livingstone Rees was a committed adherent to tall buildings and, in contrast with the LPACs findings, insisted they were critical to the City's status as a financial centre. Scores of tall buildings, including the Gherkin and the Walkie Talkie, were approved during his tenure and he is said to have rebuilt or redeveloped 80% of the Square Mile¹¹. His approach had an impact on the rest of London too as it became far harder to argue that tall buildings represented a threat to heritage when the capital's oldest district was full of them.

And the third and final reason for the transformation of London's attitude towards tall buildings was a landmark public inquiry that took place in 2002. Heron Tower (now called Salesforce Tower) is a 230m skyscraper in the City of London. When it was first proposed nothing of this height had ever been built in the City before and campaigners feared it would harm protected views of St. Paul's and of the City from Waterloo and lead to an indiscriminate scrum of future towers. A public inquiry which was a titanic battle between conservationists on one side and the developer (backed by the City of London) on the other. The developer won.

https://www.architectsjournal.co.uk/archive/eh-is-taliban-of-architecture-livingstone-tells-schoolkids

^{11.} https://www.standard.co.uk/business/business-news/peter-rees-the-man-who-reshaped-the-square-mile-9204713.html



Fig. 1.7 The 2002 Heron Tower public inquiry had a seismic impact on tall building development in London

First, the inquiry was very much seen as a litmus test for millennial London's tolerance for tall buildings. Had permission been denied there is a very real likelihood that the flurry of tall buildings built in Heron's wake and to which London is home to today, including the Walkie Talkie, and most notably the Shard (now western Europe's tallest building) would never have been built. When the inquiry decided in the developer's favour, the floodgates opened as determinedly as they had done in the early 1960s when Harold Wilson's "white heat of technology" finally banished the height restrictions of the old London Building Acts. For good or ill, the urban form of London today is indebted to the Heron Tower inquiry.

The second reason why the inquiry was significant is because it brutally exposed the tall buildings policy vacuum that still exists in London to this day. While this negation could just about be tolerated when London was building a handful of tall buildings in the 1930s and 1960s, it is proving untenable as London builds dozens more in the 2020s. Tall building public inquiries, of which there have been several after the landmark Heron case and where policy always defers to opportunism, are symptomatic of the waste and uncertainty that London's lack of tall buildings legislative clarity continues to inflict on the capital to this day.

1.07 Tall Buildings Outside London

Fig. 1.8 With its 123m spire, (the same height as the Barbican towers) Salisbury Cathedral in Wiltshire is the tallest cathedral in the UK



The history of tall buildings in Britain largely mirrors that of London, in pattern if not in scale. Like London, Britain's vertical history is overwhelmingly one of low-rise buildings occasionally punctuated by great exuberances of height. Throughout the medieval age and up until the late 19th century, these exuberances inevitably came in the form of cathedrals and churches and the basic formula for British urban settlement for centuries was low-rise housing clustered around the solitary high point of a church or cathedral. Happily, thousands of towns and villages still retain this simple picturesque

arrangement to this day and cathedrals like Salisbury, now the tallest in the UK after the dethronement of Lincoln and St. Paul's, offers one of the most evocative demonstrations of this visual arrangement.

As with so many aspects of British social and urban life, this arrangement shifted slightly with the onset of the Industrial Revolution and the 19th century. Industrial buildings and chimneys became recognisable vertical landmarks across the country, punctuating both urban and rural landscapes but visually indicative of the waves of urbanisation and industrialisation the revolution fuelled. But it was a decidedly more whimsical building that was the very first to exceed a British cathedral in height. In 1894, inspired by the (eventual) success of the Eiffel Tower, Blackpool Tower opened as a hedonistic Lancastrian tribute to it, its 158m height giving it the incongruous global accolade of being the tallest building throughout the British Empire when it opened. The vertical primacy of religious buildings was thoroughly eroded in the 20th century with communication masts, skyscrapers and even power stations becoming some the tallest structures in the country. Today Britain's tallest building may be the 310m Shard but its tallest structure is the 365m Skelton Mast in Cumbria. But in British cities, it is of course tall buildings with which we primarily associate height. Of the 30 tallest towers in the UK outside London exactly half are located in Manchester, with Birmingham, Leeds and Liverpool taking the lion's share of the remaining. (See Fig. A2).

As in London the country as a whole has witnessed significant uplift in construction of tall buildings since the start of the 21st century. As Table 2 demonstrates, before the year 2000 there was just a single tower in the UK outside London taller than the height of St. Paul's Cathedral. This was the 118m CIS Tower in Manchester of 1962. Today this number has ballooned to 19 with many more planned or under-construction. In Manchester, which hosts Britain's highest concentration of skyscrapers outside London, nine of its thirteen towers over 120m have been designed by a single architectural practice, Simpson-Haugh.



FIG A2: Location of the UK's 30 Tallest Towers outside London

TABLE 2: Tallest 30 Buildings in UK Outside London*

						1	
	Building	Location	Height (m)	Floors	Function	Opened	Architect
1	Deansgate Square South Tower	Manchester	201	64	Residential	2018	Simpson- Haugh
2	Beetham Tower	Manchester	169	47	Mixed Use	2006	Simpson- Haugh
3	Deansgate Square East Tower	Manchester	158	50	Residential	2018	Simpson- Haugh
4=	Three60	Manchester	154	51	Residential	2024	Simpson- Haugh
4=	The Blade	Manchester	154	51	Residential	2024	Simpson- Haugh
6=	Elizabeth Tower	Manchester	153	52	Residential	2022	Simpson- Haugh
6=	Cortland at Colliers Yard	Manchester	153	50	Residential	2023	омі
8	Deansgate Square East Tower	Manchester	141	44	Residential	2018	Simpson- Haugh
9	West Tower	Liverpool	140	40	Mixed Use	2007	Aedas
10	The Mercian	Birmingham	132	42	Residential	2021	Glenn Howells
11	100 Greengate	Salford	131	44	Residential	2018	омі
12	10 Holloway Circus	Birmingham	122	30	Hotel/ Residential	2006	Simpson- Haugh
12=	Deansgate Square North Tower	Manchester	122	37	Residential	2018	Simpson- Haugh
14	CIS Tower	Manchester	118	25	Office	1962	Gordon Tait
15	Victoria Place (Tower 1)	Woking	117	34	Residential	2022	Benoy
16	Affinity Living Circle Square	Manchester	116	36	Residential	2021	FieldenClegg Bradley
17	Altus House	Leeds	114	37	Student Residential	2021	O'Connell East
18	The Lexington	Liverpool	113	35	Residential	2021	Falconer ChesterHall
19	Bridgewater Place	Leeds	112	32	Mixed Use	2007	Aedas
20	Cortland Broad Street	Birmingham	111	35	Residential	2023	Corstorphine & Wright
21=	Affinity Living Riverview	Salford	110	35	Residential	2021	Denton Corker Marshall
21=	NOMA Angel Gardens	Manchester	110	35	Residential	2019	HAUS Collective

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21=	Oxygen Tower	Manchester	110	32	Residential	2021	5plus
	Building	Location	Height (m)	Floors	Function	Completion	Architect
24	103 Colmore Row	Birmingham	108	26	Office	2021	Hamilton
25=	City Tower	Manchester	107	30	Office	1958	Covell, Matthews & Ptnrs.
25=	The Tower, Meridian Quay	Swansea	107	29	Residential	2007	Latitiude Architects
25=	Liberty Heights	Manchester	107	37	Residential	2012	Hodder & Ptnrs.
28	Sky Plaza	Leeds	106	37	Residential	2008	Carey Jones
29	Victoria Place (Tower 2)	Woking	105	30	Residential	2022	Benoy
30=	The Bank (Tower 2)	Birmingham	102	33	Residential	2019	Glancy Nicholls
30=	Sussex Heights	Brighton	102	24	Residential	1968	Richard Seifert

* Orange shading refers to buildings completed before 2000.

1.1 A Streetplan Named Disaster: Height vs Planning

When it comes to tall buildings, planning in London simply doesn't work. Tall buildings are unique commodities within the built environment and cannot be treated like other smaller examples of commercial or residential development. Their great height gives them a heightened visual impact far beyond their immediate vicinity, a circumstance that in turn demands a unique response from the planning system. Planning within the area of tall buildings requires four things in order to work effectively; control, consistency, coherence and consent. But in London this is rarely achieved and instead a cacophonous free-for-all has turned one of the world's most important historic capitals into an architectural Wild West.

Who controls tall buildings in London? Is it the boroughs, the mayor, the Greater London Authority, the government, the Civil Aviation Authority, the Secretary of State, the Planning Inspectorate or, confusingly, is it a combination of all seven? Where is the consistency when one borough in the same city can offer completely different guidance on tall buildings to its neighbouring borough or where the 230m Heron Tower in the City of London can be called in for a public inquiry as a result of its potentially harmful impact on historic fabric but the 278m 22 Bishopsgate and 304m One Undershaft towers next door avoid one?

Where is the coherence in multiple layers of often contradictory statutory guidance that on one hand seek to safeguard the unique historic character of conservation areas and then on the other give planning permission for 40-storey tower blocks either inside them or in their vicinity? Or where is the coherence in vague policy soundbites, as is the case in the London Plan, that tall "buildings should positively contribute to the character of the area¹²", when no rigorous is attempt is taken to specifically quantify what "positive" and "character" might actually mean?

And where is the public democratic consent for the seismic physical transformations cities like London and Manchester have undergone in recent years due to tall buildings? Table 3 shows that there are currently 107 tall buildings above the 111m height of St. Paul's Cathedral in London today. As Fig. A3 also indicates, just 12 of them, or 11%, existed before the year 2000.

12. London Plan, 2021, Policy D9, Tall Buildings





FIG A3: Number of Tall Buildings over 111m in London
TABLE 3: All London Towers over 111m*

	Tower	Height (m)	Floors	Function	Completion	Borough	Architect	Public Inquiry, Appeal
1	The Shard	310	72	Mixed Use	2012	Southwark	Renzo Piano	~
2	22 Bishopsgate	278	62	Office	2019	City	PLP	
3	Canary Wharf Tower	235	50	Office	1991	Tower Hamlets	Cesar Pelli	
4	The Landmark Pinnacle	233	75	Residential	2020	Tower Hamlets	Squire & Ptnrs.	
5	Salesforce Tower	230	47	Office	2010	City	Kohn Pedersen Fox	✓
6	Leadenhall Tower	225	46	Office	2014	City	RSHP	
7	Newfoundland	220	60	Residential	2019	Tower Hamlets	Horden Cherry Lee	
	Consort Place, Tower 1	216	64	Residential		Tower Hamlets	Pilbrow & Partners	
8	Valiant Tower	215	68	Residential	2021	Tower Hamlets	Foster + Partners	
9	One Park Drive	205	57	Residential	2021	Tower Hamlets	Herzog & de Meuron	
10	8 Bishopsgate	204	51	Office	2023	City	WilkinsonEyre	
11=	8 Canada Square	200	42	Office	2002	Tower Hamlets	Foster + Partners	
11=	25 Canada Square	200	42	Office	2002	Tower Hamlets	Cesar Pelli	
13	One Nine Elms / City Tower	199	58	Residential	2018	Wandsworth	Kohn Pedersen Fox	
	South Quay Plaza 4	192	56	Residential		Tower Hamlets	Pilbrow & Partners	
14	The Scalpel	190	39	Office	2019	City	Kohn Pedersen Fox	
15	Wardian London (East Tower)	187	55	Residential	2020	Tower Hamlets	Glenn Howells	
16	One West Point, Icon Tower	184	54	Residential	2022	Ealing	Jo Cowen	
	1 Leadenhall Street	183	36	Office		City	Make	
17	Tower 42 / NatWest Tower	183	47	Office	1980	City	Richard Seifert	
18	The Madison Amory Tower	182	53	Residential	2021	Tower Hamlets	Make	
19	St. George's Wharf Tower	181	52	Residential	2014	Lambeth	Broadway Malyan	~
20	The Gherkin / 30 St. Mary Axe	180	40	Office	2003	City	Foster + Partners	
21=	BT Tower	177	34	Office	1964	Camden	Eric Bedford	
21=	Thames City (Building 8)	177	53	Residential	2022	Wandsworth	Skidmore, Owings & Merrill	
23	100 Bishopsgate	172	40	Office	2019	City	Allies & Morrison	
24	DAMAC Tower	170	50	Residential	2022	Lambeth	Kohn Pedersen Fox	
	Vauxhall Square North Tower	168	50	Residential		Lambeth	Allies & Morrison	
	Vauxhall Square South Tower	168	50	Residential		Lambeth	Allies & Morrison	
25	Wardian London (West Tower)	168	50	Residential	2020	Tower Hamlets	Glenn Howells	
26	One Blackfriars	166	50	Residential	2018	Southwark	Simpson-Haugh	~
27	Broadgate Tower	164	35	Office	2008	City	Skidmore, Owings & Merrill	
	Bankside Yards Building 2	163	50	Residential		Southwark	PLP	
28	Principal Tower	163	50	Residential	2019	Hackney	Foster + Partners	
29	One Nine Elms / River Tower	161	43	Hotel	2018	Wandsworth	Kohn Pedersen Fox	
30	20 Fenchurch Street / Walkie Talki	160	37	Office	2014	City	Rafael Vinoly	~
	One Thames Quay	158	48	Residential		Tower Hamlets	Make	
31	One Churchill Place	156	32	Office	2004	Tower Hamlets	НОК	
32	250 City Road, Carrara Tower	155	42	Residential	2018	Islington	Foster + Partners	
33	40 Leadenhall Street	154	35	Office	2023	City	Make	
34=	25 Bank Street	153	33	Office	2003	Tower Hamlets		
34=	40 Bank Street	153	33	Office	2003	Tower Hamlets	Cesar Pelli	
	10 Upper Bank Street	151	32	Office	2003	Tower Hamlets		
	Southbank Tower	150	41	Residential	1972/2015		chard Seifert/Kohn Pedersen	i Fo
	10 Park Drive	150	42	Residential	2019	Tower Hamlets		
	The Founding	150	35	Residential		Southwark	Allies & Morrison	
	College Road Tower A	150	49	Residential	2023	Croydon	HTA	

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81=	Centle Point	11/	35 31	Office	1967	Hammersmith	Stone, Toms & Partners	
	Centre Point	118	28 35	Residential	1969	Camden	Richard Seifert	
80	St. Helen's Tower	119	28	Office	1969	City	GMW	
79	Millbank Tower	119	33	Office	1963	Westminster	Ronald Ward & Partners	
78	Sky Gardens Nine Elms	120	35	Residential	2017	Lambeth	CJCT	
	Bankside Yards, Mandarin Oriental	121	36 34	Hotel		Southwark	PLP	
74=	Chelsea Waterfront West Tower Elephant Town Centre, Tower 1	122	37	Residential Residential	2019	& Fulham Southwark	Farrells Allies & Morrison	
74= 74-	Stratosphere Tower	122	39 37	Residential	2017 2019	Newham Hammersmith	Allies & Morrison	
74=	1 Casson Square	122	37	Residential	2018	Lambeth	Squire & Ptnrs.	*
	Pan Peninsula West Tower	122	39	Residential	2008	+	Skidmore, Owings & Merrill	
70-	Consort Place, Tower 2	122	34	Residential	2009	Tower Hamlets		
70=	One Crown Place Tower 1	123	33	Residential	2020	Hackney	Kohn Pedersen Fox	
70=	Shakespeare Tower (Barbican)	123	43	Residential	1976	City	Chamberlain, Powell & Bonn	
70=	Lauderdale Tower (Barbican)	123	43	Residential	1974	City	Chamberlain, Powell & Bonn	
70=	Crommwell Tower (Barbican)	123	43	Residential	1973	City	Chamberlain, Powell & Bonn	
68= 70-	Euston Tower	124	36	Office	1970		dney Kaye Eric Firmin & Partne	9
68=	One The Elephant	124	37	Residential	2015	Southwark	Squire & Ptnrs.	
65=	Thames City (Building 9)	125	36	Residential	2022	Wandsworth	Skidmore, Owings & Merrill	
65=	Sirocco Tower	125	36	Residential	2018	Tower Hamlets	Rolfe Judd	
65=	Willis Building	125	26	Office	2007	City	Foster + Partners	
64	Waterford Point, Nine Elms Point	126	37	Residential	2019	Lambeth	Rolfe Judd	
	Millhabour Village (West)	126	37	Residential		Tower Hamlets	Studio Egret Wesi	
62=	CityPoint	127	35	Office	1967	City	Grosvenor Hawkins Brown	
62=	40 Marsh Wall	127	39	Hotel	2017	Tower Hamlets	BUJ F. Milton Cashmore / H.N.W.	
59=	10 George Street / Vertus	128	35	Residential	2019	Tower Hamlets	GRID	
59=	Keybridge Tower	128	37	Residential	2020	Lambeth	Allies & Morrison	
59=	One West Point, Legacy Point	128	60	Residential	2022	Ealing	Jo Cowen	
58	25 Churchill Place	130	23	Office	2014	Tower Hamlets	Kohn Pedersen Fox	
57	Stratford Halo	133	42	Residential	2013	Newham	Stock Wolstencroft	
	Chapter London Bridge	133	39	Residential		Southwark	Kohn Pedersen Fox	
54=	Atlas Building	134	40	Residential	2018	Hackney	Make	
54=	Two Fifty One	134	42	Residential	2017	Southwark	Allies & Morrison	
54	Saffron Square	134	44	Residential	2015	Croydon	Rolfe Judd	
53	Pan Pacific London	135	44	Hotel	2020	City	PLP	
51=	101 George Street	136	44	Residential	2019	Croydon	HTA	
51=	Charrington Tower	136	44	Residential	2016		Skidmore, Owings & Merrill	
50 51-	250 City Road, Valencia Tower	137	36	Residential	2019	Islington	Foster + Partners	
49	Imperial West Tower	139	35	Residential	2019	& Fulham	PLP	
48	24 Marsh Wall	140	44	Residential	2010	Tower Hamlets Hammersmith		
	Millhabour Village (G3)	142	45	Residential		Tower Hamlets	Studio Egret West	
46=	Guy's Hospital Tower	143	34	Hospital	1974	Southwark	Watkins Grey Hawkins Brown/	
46=	Manhattan Loft Gardens	143	42	Residential	2018	Newham	Skidmore, Owings & Merrill	
45	Maine Tower	144	42	Residential	2018	Tower Hamlets		
42=	Strata	147	43	Residential	2019	Southwark	BFLS	
42=	One Bank Street	147	28	Office	2019	Tower Hamlets	Kohn Pedersen Fox	
42	Pan Peninsula East Tower	147	48	Residential	2008		Skidmore, Owings & Merrill	
40=	Highpoint	149	46	Residential	2016	Southwark	RSHP	
						••••••••		

Elephant Town Centre, Tower 3	117	35	Residential		Southwark	Allies & Morrison	
209 Connngton Road Tower	117	34	Residential		Lewisham	EPR	
Chronicle Tower	116	36	Residential	2015	Islington	Skidmore, Owings & Merrill	
The Stage, Shoreditch	115	38	Residential	2022	Hackney	Perkins + Will	.
Rudolph Place	115	37	Residential	2021	Lambeth	T P Bennett	
20 Ropemaker Street	115	27	Office	2023	Islington	Make	
Queen's Quarter (Building 1)	114	35	Residential	2021	Croydon	AHMM	
Millhabour Village (West G2.2)	113	35	Residential		Tower Hamlets	Hawkins Brown, Studio Egret Wesi	
Insignia Point, Victory Plaza	113	30	Residential	2018	Newham	Hawkins Brown	
Cassini Tower	112	35	Residential		Hammersmith & Fulham	Patel Taylor	
The Heron	112	35	Residential	2013	City	David Walker	
St. Paul's Cathedral	111						
	209 Connigton Road Tower Chronicle Tower The Stage, Shoreditch Rudolph Place 20 Ropemaker Street Queen's Quarter (Building 1) Millhabour Village (West G2.2) Insignia Point, Victory Plaza Cassini Tower The Heron	209 Connigton Road Tower117209 Connigton Road Tower116Chronicle Tower116The Stage, Shoreditch115Rudolph Place11520 Ropemaker Street11520 Ropemaker Street113Queen's Quarter (Building 1)114Millhabour Village (West G2.2)113Insignia Point, Victory Plaza113Cassini Tower112The Heron112	209 Connigton Road Tower11734209 Connigton Road Tower11734Chronicle Tower11636The Stage, Shoreditch11538Rudolph Place1153720 Ropemaker Street11527Queen's Quarter (Building 1)11435Milhabour Village (West G2.2)11330Cassini Tower11235The Heron11235	209 Connigton Road Tower11734Residential209 Connigton Road Tower11636ResidentialChronicle Tower11636ResidentialThe Stage, Shoreditch11538ResidentialRudolph Place11537Residential20 Ropemaker Street11527OfficeQueen's Quarter (Building 1)11435ResidentialMilhabour Village (West G2.2)11335ResidentialInsignia Point, Victory Plaza11330ResidentialCassini Tower11235Residential	209 Connegton Road Tower11734Residential209 Connegton Road Tower11636Residential2015Chronicle Tower11636Residential2022The Stage, Shoreditch11538Residential2022Rudolph Place11537Residential202120 Ropemaker Street11527Office2023Queen's Quarter (Building 1)11435Residential2021Milhabour Village (West G2.2)11335Residential2018Cassini Tower11235Residential2018The Heron11235Residential2018	209 Connagton Road Tower11734ResidentialLewisham209 Connagton Road Tower11636Residential2015IslingtonChronicle Tower11636Residential2015IslingtonThe Stage, Shoreditch11538Residential2022HackneyRudolph Place11537Residential2021Lambeth20 Ropemaker Street11527Office2023IslingtonQueen's Quarter (Building 1)11435Residential2021CroydonMilhabour Village (West G2.2)11335Residential2018NewhamCassini Tower11235Residential2018Keuham	209 Connegton Road Tower 117 34 Residential Lewisham EPR 209 Connegton Road Tower 1117 34 Residential 2015 Lewisham EPR Chronicle Tower 116 36 Residential 2015 Islington Skidmore, Owings & Merrill The Stage, Shoreditch 115 38 Residential 2022 Hackney Perkins + Will Rudolph Place 115 37 Residential 2021 Lambeth T P Bennett 20 Ropemaker Street 115 27 Office 2021 Islington Make Queen's Quarter (Building 1) 114 35 Residential 2021 Croydon AHMM Milhabour Village (West G2.2) 113 35 Residential 2018 Newham Hawkins Brown/ Studio Earct West Insignia Point, Victory Plaza 1112 35 Residential 2018 Newham Hawkins Brown Cassini Tower 1112 35 Residential 2018 Newham Hawkins Brown <tr< td=""></tr<>

*Orange shading refers to buildings built before the year 2000. Pink shading refers to buildings under construction.

This is an astonishing rate of change in a relatively short space of time and with the exception of the Second World War, unmatched in London's modern history. But while wars don't rely on democratic consent, planning does. Yet when have the public been widely consulted on whether they are in favour of these historic changes or not? Imagine if, in the opposite direction, New York had shed 89% of its skyscrapers over a two-decade period. It is unthinkable that so monumental a change to the city's global brand, image, character and identity would be entertained without some form of democratic consent. Yet London's global assets have endured comparable rupture without a single ballot cast.

Exclusive polling carried out for Policy Exchange, the largest on tall buildings undertaken in years, reinforces these arguments¹³. 64% of respondents believed they had not been allowed an adequate say in whether tall buildings should be permitted, and the same percentage believed they were entitled to a bigger say on whether tall buildings were permitted. 71% would welcome a formal public vote to help decide whether tall buildings should be permitted¹⁴.

London's planning problem, and one which the second section of this paper offers a solution to, is that it lacks an overall, definitive, coherent and coordinated tall buildings policy framework to guide the development of tall buildings in the capital. Instead and with few exceptions, it relies on a curious unplanned mix of empiricism and opportunism, complicating what little guidance there is by spreading it over as many different statutory tiers as possible and leaving policymaking to a stream of profligate public inquiries to ensure that tall building development is settled by proxy and informed more by precedent than principle. This is marked contrast to the majority of comparable global or historic cities around the world who have clear, city-wide tall building policies in place. By comparison London offers a planning vacuum instead.

Few incidents illustrate this vacuum more starkly than the saga of the London Millennium Tower. The IRA's Baltic Exchange bomb ripped through the City of London in 1992 and was the largest bomb detonated

^{13.} DeltaPoll survey for Policy Exchange, 1859 respondents, December 2021

^{14.} DeltaPoll survey for Policy Exchange, 3120 respondents, February 2024

in Britain since the Second World War. It severely damaged the stunning Edwardian banking hall that had been the Baltic Exchange and opened up a rare development site right in the heart of London's oldest district.

Fig. 1.9 Although never built, the proposed London Millennium Tower of 1996 helped kick-start London's second and current skyscraper boom



Initially English Heritage rightly insisted that the façade and interior of the building be restored. But unable to afford such a venture, the Baltic Exchange sold the site. Shortly thereafter and to the fury of conservationists (as well as the Baltic Exchange), English Heritage's advice changed and removed the restoration stipulation. Almost immediately what was left of the Exchange was demolished and a new proposal for the site was presented by the new owners in the form of a huge new skyscraper known as the London Millennium Tower.

Designed by celebrated architect Norman Foster, at 386m it would have been taller than New York's Empire State Building and in a poignant echo of London's medieval high-rise primacy, the sixth tallest building in the world at that time. Absurdly provocative for its time (it would doubtless receive permission today) the application was refused and the site sold once again.

Shortly afterwards the site's new owners again retained Foster to design another tower, this time he proposed one less than half the Millennium Tower's height but still, at the time, the City's second tallest building. Under normal circumstances and in a climate where London was still hesitant about high-rises, permission would probably have been denied. But doubtless grateful for the concessionary reduction in height from the Leviathan they had been faced with previously, the City's planning committee approved the replacement.

Today that tower is known as the Gherkin. And somewhere in the stumbling, convoluted and reactive knot of chance and cynical provocation that led to its fruition lies the accidental DNA of almost every tall building in London. The Gherkin may be one of London's most famous skyscrapers. But in order to understand how tall buildings are procured in London, it is important to recognise that it does not exist because of an aspirational municipal strategy or a grand planned vision for London's skyline and urbanism. It exists because of a bomb and a compromise.

Such compromises are not necessarily alien to London's planning history. In fact, they are integral to it. London is not like Paris or New York, its historic development is not marked by grand plans or hyperregulated restrictive zoning dictats issued by monarchs or mayors. Instead its planning, like the British tradition of planning more generally, has always been more organic and informal, with private developers as opportunistically incentivised to forge its development as the state. With their massive potential for accentuated concentration of private profit, such loose parameters make fertile ground for skyscrapers.

The issue of private profit is significant in planning terms because economic resilience is often used to justify skyscraper proposals. For much of the 21st century, London has either been the world's first or second biggest financial centre with the City of London in particular determined to maximise office space. The City of London's draft 2040 Plan, estimates that up to 1.9m² additional office space would be needed to meet demand by 2040 if demand returns to 80% of pre-pandemic levels¹⁵. Inevitably, this is the mantra used to support more tall buildings in the Square Mile.

However, there is little, if any, evidence that tall buildings are essential for economic growth. After two decades of prodigious skyscraper building, the vacancy rate of the central London office market is at a 30 year high with the pandemic said to have caused a contraction in office demand of up to 20%¹⁶. As working from home for at least part of the week continues to imbed itself in our new post-pandemic social construct, it is difficult to see these levels rising significantly in the short or medium term. Equally, arguably the largest study of London tall buildings in recent decades remains the LPAC's landmark 1998 guidance in which it unequivocally insisted on the following:

"Economic analysis confirms that very high office buildings are not required for London to maintain and enhance its World City role. There is no evidence to support arguments that London will lose jobs to other World Cities if high buildings are not developed¹⁷.

In the intervening years, no such evidence has still been forthcoming. In fact, just four years later Parliament's Urban Affairs committee even more forcibly reiterated the LPAC's findings and was scathing in its criticisms of both tall buildings and the planning methodologies deployed to procure them, particularly in London. Its 2002 Tall Buildings report it accused tall buildings of being "often more about power, prestige, status and aesthetics than efficient development" and found that the "inadequacies of [London's] transport system were far more important for London's future as a financial centre". Arguing that the "ad hoc" planning of tall buildings was destabilising the character of London, the report was remarkably

^{15.} https://www.cityoflondon.gov.uk/services/ planning/planning-policy/local-plan-reviewdraft-city-plan-2040

https://www.reuters.com/world/uk/london-office-market-rental-recession-vacancies-hit-30-yr-high-jefferies-2023-09-27/

^{17.} Memorandum by English Heritage to Parliament (TAB 18), January 2002

prescient in outlining many of the problems with tall buildings that have now come to full fruition today.

"There is one very powerful and irrefutable argument in favour of a tall building: some people find them very beautiful. The Mayor of London is delighted by the Manhattan skyline. His love of tall buildings is shared by many architects and others. However, if they are to enhance the skyline it is important that they are well-designed. Moreover, if they are to enhance the city it is important that they improve the streetscape. Few skyscrapers in England do: many older tall buildings are an eyesore; they are insensitive to their location, 'hit the ground' badly, have large service bays and are windswept at their base. These problems must be overcome if tall buildings are to become acceptable."¹⁸

Since then, both the LPAC and Urban Affairs committee findings have been strengthened by the experience of other world cities, notably Paris. While its ambitions to cream finance off an economically destitute post-Brexit London have proved to be wildly overstated, the Paris Bourse did, briefly, overtake the London Stock Exchange as Europe's leading equities market stock exchange in 2022¹⁹. Equally, London's productivity growth has lagged behind Paris's²⁰ and while the French capital's financial centre is a fraction of London's size, it is now continental Europe's second biggest finance hub after Frankfurt.

And over the past 20 years, Paris has achieved all of this without building a single tall building in its historic centre. It does have a prodigious coterie of its own high-rises but these are kept safely at bay in the modern La Défense district just outside the city. Moreover, after a brief dalliance with the idea of loosening its hermetically strict planning rules to encourage high-rises in its historic core, Paris decided to resoundingly reject London's permissive example and firmly reimpose its 37m height limit last summer, effectively banning skyscrapers from the centre of the city²¹. Such restrictions may well prove fruitless in London. But the Parisian example puts to bed the idea that economic success depends on vertical encroachment.

While London's planning rules with regard to tall buildings are demonstrably lax, the following sections itemise their content and range in order to offer a broader understanding of the current statutory framework in which tall buildings must operate.

1.11 National Planning Policy

National planning policy is remarkably light when it comes to tall buildings with the National Planning Policy Framework (NPPF), which sets out the government's general planning policies for England, incredibly not even deigning to mention them once. There are of course broad inducements to "prioritise good design" and maintain "prevailing character" but nothing that recognises the unique impacts imposed by tall buildings²².

The National Design Guide, the government's best practice design manual, advises that "well-designed tall buildings play a positive urban design role in the built form" and that "special consideration" should

- The Transport, Local Government and the Regions Committee; Tall Buildings; 16th Report, July 2002
- 19. https://www.telegraph.co.uk/business/2023/10/19/london-stock-exchange-overtakes-paris-europe-market/
- 20. https://www.centreforcities.org/publication/ capital-losses-the-role-of-london-in-theuks-productivity-puzzle/
- 21. https://www.dezeen.com/2023/06/06/paris-skyscraper-ban/
- 22. National Planning Policy Framework, 2023, DLUHC

be given to "their location and siting; relationship to context; impact on local character, views and sight lines...²³." This is better but still stops short of specifying what this "special consideration", other than cursory compliance, might be.

Finally, the National Model Design Code, the government's centralised guidance for design code implementation, probably offers the most concrete advice, identifying eight "principles" (including form, base and materials) to which tall building design should attempt to subscribe²⁴. However, these need only be implemented voluntarily and within the context of design code adoption which itself, is not compulsory.

1.12 Boroughs & Local Plans

Most of the national guidance above defers specific authorship of tall building policies to local authorities through their local plans. But again, while councils are encouraged to develop tall building policies they are not required to. Moreover, it is estimated that up to 78% of English councils will have out of date local plans or none in place at all by 2025²⁵. In London the situation is further complicated by the fact that the capital is split into 33 boroughs, each one with the autonomy to devise its own local plan and tall buildings guidance.

While the borough system reflects the rich geographical and historical variety of the city, (famously London is often compared to a 'collection of villages') it is painfully vulnerable to feudal cross-borough rivalries and intransigencies that make coordinated municipal administration of the capital as a whole almost impossible.

London's 33 boroughs also appear excessive when compared internationally. Tokyo, which is the only top-ranking world city bigger than London, has 23 'special wards', Paris has twenty arrondisements, (but with very limited powers²⁶) Los Angeles has fifteen city council districts, Berlin has twelve boroughs and New York, which has roughly the same population as London (albeit dispersed across a geographical area less than half its size) has just five boroughs.

Skylines also don't generally recognise boundaries so tall buildings are a classic area where the limitations of the borough system are brutally visually exposed. Boroughs are not compelled or required to take notice of neighbouring borough's tall building policies or aspirations, leading to a series of rolling municipal disputes across London's built infrastructure which delay the planning process, promote indiscriminate development and thoroughly stymie the implementation of a coordinated visual narrative for the city.

For instance, Tower Hamlets objected to vanquished plans for a 'Tulip skyscraper' in the neighbouring City (2019), Islington objected to the Arc tower block in neighbouring Hackney (2017), Hackney then objected to the 2 Finsbury Avenue skyscraper in the neighbouring City (2021) and until Westminster City Council itself succumbed to the allure of the skyscraper, it pretty much objected to everything from Heron Tower in the City (2001) to the South Bank Place (2014) and Doon Street (2008)

23. National Design Guide, 2021, DLUHC

^{24.} National Model Design Code, 2021, DLHUC

https://www.planningresource.co.uk/article/1832554/78-english-councils-will-outof-of-date-local-plan-late-2025-says-report

^{26.} https://www.parisdigest.com/map_paris/ map_of_paris_arrondissements.htm

developments across the Thames in Lambeth, reluctantly assuming the role of urban sheriff amongst its squabbling municipal peers. There are countless other examples.

But the greatest borough rivalry of them all with regard to tall buildings exists between the City of London and Tower Hamlets. As a result of being home to the first and second financial centres of the capital respectively and, in the latter's case, playing host to the astonishing 30-year Docklands regeneration project around Canary Wharf, both boroughs have the lion's share of tall buildings in the capital, as Fig. A4 demonstrates.





The City's desperation not to cede financial primacy to its upstart Eastern neighbour is what drives much of its enthusiasm for tall buildings. But while Docklands is a post-industrial regeneration site relatively free of historic constraints, the City is the exact opposite and its rivalry with Canary Wharf, played out on the canvas of its restless skyline, leaves its embattled heritage as the hapless victim. Two boroughs in the same city being allowed to capture the built environment as a hostage in their municipal quest to assert strategic dominance over the other is no way for a mature, responsible city to be run.

As the historic centre of the nation's capital city, the built environment of the City of London is of national interest. Yet its local plan is determined in the same way as everywhere else and because the City houses a tiny residential population of just over 8,000²⁷, it is not subject to the same residential consultative scrutiny as the rest of the country and business groups play a uniquely dominant role in setting and deciding its future built fabric. Since the Gherkin, this has been largely based upon the relentless accumulation of tall buildings, as Table 3 demonstrates, prior to

 https://www.ons.gov.uk/visualisations/censuspopulationchange/E09000001/ 2000 the City had just six towers over 111m, today it has 33.

The City does have a form of plan in place that euphemistically refers to the 'Eastern Cluster' as its primary site for skyscrapers. Furthermore, last summer it did announce plans to strengthen skyscraper rules to keep buildings above 75m in height away from other parts of the City, apart from the Holborn & Fleet Valley²⁸. This is welcome but in many ways years of irresponsible development has already ensured that the damage to the City has been done. And the new plans make no reference to the City's enduring architectural contradiction that practically all its tall buildings are either in or near conservation areas, making a mockery of the statutory protections the latter are supposedly entitled to enjoy.

Led by the City's example, other boroughs in London have seen similar, if smaller, increased high-rise development with new clusters developing in Croydon, Southwark and most significantly Lambeth and Wandsworth due to the Nine Elms development (See Fig. 1.10). As Figs. A5 and A6 show, for the first time, and in marked contrast to the first 1960s skyscraper boom, towers are now percolating across inner London boroughs and into the suburbs, when previously the overwhelming majority of them were clustered in London's centre.

FIG A5: Location of London Tall Buildings* (Today)



28. https://www.bdonline.co.uk/news/ city-of-london-progresses-new-towerrules/5123780.article



FIG A6: Location of London Tall Buildings* Before (Before 2000)

*Buildings over 111m high

Fig. 1.10 The Nine Elms development in Vauxhall typifies the shift since the Millennium away from central London and away from commercial to residential development in London's high-rise property market



One possible explanation for the significant upsurge in tall building popularity amongst London councils could be funding. Between 2020 and 2010, while overall public spending (Total Managed Expenditure) on London councils increased by 5%, core funding was reduced by 63% in real terms²⁹. Yet as Fig. A1 demonstrates, over the same period and compared to the previous decade, the number buildings in London taller than St. Paul's Cathedral increased by almost threefold.

29. https://www.londoncouncils.gov.uk/ourkey-themes/local-government-finance/ london%E2%80%99s-local-services-investing-future/decade-austerity

As we have seen, cultural and political factors invariably played a role

in this unprecedented upsurge. But when we also consider that high-rise projects like the Mitsubishi's highly contentious and ferociously contested $\pounds700m$ 72 Upper Ground development, (recently and controversially approved at public inquiry, see Fig. 1.30) will net an additional $\pounds11m$ a year in business rates for the local council³⁰, then it becomes less difficult to envisage a situation where cash-strapped local authorities might view tall buildings as a supplementary source of income.

In 2021 the Secretary of State for Housing, Communities and Levelling Robert Jenrick increased the boroughs' powers to determine their own high-rise policies, stating that "I believe boroughs should be empowered to choose where tall buildings are built in within their communities³¹". But this potentially entrenches borough autonomy further and fails to address London's central issue of lack of city-wide planning and policy for its tall buildings, an undertaking directly related to the role of the mayor.

1.13 Mayor of London & the London Plan

Since the introduction of the mayoralty, London's three mayors have had an enormous impact on tall buildings in London. All three have been supportive of them with Ken Livingstone in particular, despite LPAC evidence to the contrary, believing that they were essential for maintaining and embellishing London's role as a world city and worldclass architectural and financial destination. In the kind of curious Pyrrhic inversion that was to become synonymous with his prime ministerial tenure, London's second mayor Boris Johnson campaigned on a ticket of stopping London's march of "phallocratic towers" then ended up building more than his predecessor. London's third and current mayor, Sadiq Khan, is yet to serve the full two terms his predecessors did but has already significantly outstripped them both, as Fig. A7 shows.

FIG A7: Number of Tall Buildings (over 111m) Built in London By Mayor



The mayor does not scrutinise every planning application in London, the vast majority are left to the boroughs. But the Mayor of London Order, a statutory instrument enacted in 2008, does give him the power to approve or reject certain schemes regardless of the borough's decision. To be considered, these schemes must include more the 150 residential

 https://www.co-re.co.uk/media/211213_ Scheme-benefits_pages4.pdf

https://www.architectsjournal.co.uk/news/ londons-tall-buildings-policy-tightened-after-jenrick-steps-in

units, be over 30m tall and situated on Green Belt or Metropolitan land³². Inevitably, many tall building proposals pass this threshold which gives the mayor significant powers to shape London's tall building landscape. Curiously, and in one of an infinite number of historic municipal indulgencies that underline the City of London's ancient administrative autonomy, the mayor's powers do not extend to consider buildings over 30m tall if they're located in the City of London. As Fig. A4 demonstrates, this excludes the mayor from influencing the bulk of central London's tall buildings output.

Unsurprisingly and in further evidence of the antagonistic municipal fracture that undermines a city-wide London tall buildings policy, this arrangement regularly sets the mayor on a collision course with the boroughs and countless schemes have been forced through by the mayor even when the local authority have refused permission. Johnson appeared especially fond of deploying this mechanism and at Carrara and Valencia Towers in Islington and Consort Place skyscraper in Tower Hamlets he overturned planning refusals issued by the respective local authorities and ordered the projects to proceed.

While there is an obvious democratic tension in this system, the principal manner in which the mayor influences tall buildings is not through adhoc planning call-ins but through what is essentially the planning manual his office produces, the London Plan. The tall buildings guidance within the London Plan falls under the infamous D9 policy, the closest, in very loose terms, London has to a comprehensive city-wide policy³³. But, while D9 is much improved from its earlier iterations, it still falls far short for a number of significant reasons which only a proper, comprehensive, city-wide tall buildings policy framework could address:

1.13.1 Harm

Incredibly, D9 sanctions harm to heritage assets. While it compels tall building proposals to "avoid harm to the significance of London's heritage assets and their settings", this instruction is fatally diluted when in the very next breath it offers a series of redemptive remediations for proposals that do actually "result in harm." New urban development in old cities may well cause harm, it is sometimes an unavoidable consequence of growth and its absolute eradication is perhaps unrealistic. But it is untenable that that harm should arise as a result of meeting policy rather than contravening it.

The attempt at pragmatic compromise between heritage and commercial interests, which this appears to be, is welcome and is perhaps symptomatic of the mercurial dynamism of London's informal planning tradition. But in policy terms this allowance forms an escape clause through which bad and insensitive design can slip. Historic structures may not be sacrosanct, but they are at the very least deeply embedded into our national and civic identity and should therefore receive the fullest definitive rather than discretionary protection. Rome would not endorse policy that actively anticipates 'a little harm' to St. Peter's Basilica, nor would Sydney welcome the same to the Sydney Opera House. We should operate the same high standards here.

33. London Plan, 2021, Policy D9, Tall Buildings

^{32. 2008} No. 580, The Town & County Planning (Mayor of London) Order 2008 Statutory Instrument

1.13.2 Height

D9 and the London Plan define the height of a tall building as anything "not less than 18 metres of 6 storeys tall." While it is encouraging to see stringent standards being applied to as wide a section of the urban environment as possible, a policy that effectively treats the seven-storey Bank of England and the 72-storey Shard as the same vertical typology is going to struggle to elucidate the legislative specificity and precision required to effect good planning. The policy should solely and specifically refer to the multi-storey towers that are most widely and popularly perceived as being emblematic of tall building design.

1.13.3 Location

The location of tall buildings is one of the most contentious and sensitive issues to be considered when assessing their acceptability. Central government has intervened significantly in this regard and, in his response to the 2020 Draft London Plan, Secretary of State for Housing, Communities and Levelling Up Robert Jenrick concluded that there were "areas in London where tall buildings did not reflect local character" and he directed the mayor to ensure that tall buildings were only brought forward in "appropriate and clearly defined areas, as determined by the boroughs". The mayor duly responded by embedding this stipulation in the current London Plan as published, with D9 now specifically inviting boroughs to "determine if there are locations where tall buildings may be an appropriate form of development, subject to meeting the requirements of the Plan³⁴."

Subject to the reservations about borough autonomy expressed in section 1.12, this on the face of it is a positive development. Greater certainty in the planning process is ensured if developers have a clearer idea of which areas tall buildings will be acceptable in and which areas they won't be and this more stringent statutory framework should help prevent the haphazard, sporadic location of tall buildings that has become so incongruous a feature of London's urban landscape in recent decades.

However, in December 2021 a High Court ruling potentially jeopardised the clarity Jenrick's direction sought to create. Hillingdon council in west London had refused planning permission for a scheme on the basis that it was outside an area they had identified as appropriate for tall buildings. Mayor Sadiq Khan, using the call-powers granted to him under the aforesaid 2008 statutory instrument, overturned the decision. Hillingdon then challenged the mayor under judicial review claiming that the new D9 policy expressly entitled them to determine where in their borough tall buildings should and should not be permitted.

However, while the High Court agreed that the proposal had failed to comply with the borough's zoning directions and therefore did not comply with this clause of D9, the scheme was still permissible because it met the requirements demanded by other non-geographical clauses of D9 and was therefore judged "on balance" as acceptable by the mayor. Hillingdon's appeal was rejected.

34. https://nla.london/insights/london-tall-buildings-survey-2023-sustainable-skylines#:~:text=ln%20his%20response%20to%20 the,as%20determined%20by%20the%20 boroughs'. Buried within the legalese complexity of this landmark ruling are potential hazard signs for the ability of D9 to enforce the locational clarity it seeks to. The ruling has effectively devalued the power of the boroughs to ultimately determine where tall buildings should and shouldn't go and was assisted in doing so by D9's own stipulation that boroughs' determining power is 'subject to' and not 'independent of' other requirements of the plan being met. This essentially means that if those other requirements are met, developers can be reasonably confident they will still win planning permission from the mayor even if it is denied by the local authority because their proposals are not located where the local authority intended.

Equally, on the other end of the scale, local authorities who either do not have a local plan in place or who have simply failed to identify where tall buildings should go can also potentially use D9 to block schemes on the very reasonable assumption that not every developer will have the time or means to force a judicial review. The result is a planning stalemate, which in its ability to both frustrate developers and emasculate local councils in equal measure, potentially satisfies neither party.

The solution, as the Tall Building Policy proposed in the second part of this paper contends, is to involve the mayor in the determination of where boroughs choose to place tall buildings in order to ensure the creation of a single, clear permissible tall buildings map for London and end the tussle of seniority between council and mayor. Furthermore, once these locations are agreed, it must be made clear that compliance with other areas of policy are unable to permit high-rise development outside the boundaries of the identified zones.

1.13.4 Character

Again, D9 makes two references to character, citing the need for tall buildings to "positively contribute to the character of the area" and for their bases to maintain the "character and vitality of the street". These invocations are commendable. However, in terms of planning law, character is a deliberately amorphous and generic term and can be deployed as vague defensive cover to both justify and dismiss inconveniently contentious proposals.

Yet it is a commodity that is of immense importance in gauging urban quality and establishing a vital sense of place. To prevent character being exploited or misconstrued, D9 should make greater effort to define what it believes character to be in detail or to directly instruct local authorities to establish specific criteria for it against which the performance of tall buildings can be objectively assessed in order to arrive at a more qualitative determination of what a "positive contribution" to urban character might actually mean in practice.

1.14 London View Management Framework

Fig. 1.11 The Leadenhall Building's distinctive slant was an architectural response to the LVMF's demand that it avoid intruding on one of the viewing corridors centred on St. Paul's Cathedral



Established in 1938 as St. Paul's Heights, the LVMF is the oldest form of tall building management legislation still in operation today. Now published as Supplementary Planning Guidance by the Greater London Authority, it establishes a series of protected strategic vistas and viewing corridors aimed at preserving important views of key London landmarks and national monuments such as the Palace of Westminster, Buckingham Palace, the Tower of London and, most notably, St. Paul's Cathedral. Tall buildings are generally expected to avoid intruding on these corridors unless they take measures to mitigate their impacts. One famous recent example is the Leadenhall Building (2014) which has a distinctive fullheight chamfer (earning it the nickname 'Cheesegrater) to swerve itself away from the adjacent viewing corridor towards St. Paul's (Fig 1.11). Failure to comply with the principles and guidance set out in the LVMF can be grounds for planning refusal.

While the LVMF has been reasonably effective in securing some level of protection from London's more obstreperous tall buildings, it still has a number of significant limitations. For one thing it is tortuously complex, overlaying layer after layer of invisible cones and funnels across London that turns the city into a labyrinthine spider's web that inevitably directs developers to concentrate on the vulnerable, unprotected gaps between the tendons. Equally, since the LVMF prohibits tall buildings from certain locations it is easy to misinterpret it as a tall buildings policy in itself, a delusion which ignores the fact that it is solely concerned with views and lacks the broader topographical or architectural instruction one would naturally expect from a tall buildings policy.

But the final charge against the LVMF is the most serious, its periodic failure to fulfil its core task and protect the views it identifies as strategically important. The most egregious example of this came with the completion of the 42-storey Manhattan Loft Garden tower in the Queen Elizabeth Olympic Park in 2016. To everyone's surprise, not least London's various planning authorities, it emerged that the view of St. Paul's Cathedral from historic King Henry's Mound in Richmond Park, protected under various guises for almost 300 years, had been marred by the encroachment of the tower above the rounded silhouette of the cathedral's dome with Historic England claiming that the tower did "serious and irrevocable harm to the view³⁵". (Fig 1.12)

Fig 1.12 The wholly unanticipated incursion of Stratford's 42-strorey Manhattan Loft Gardens tower onto the 300-year-old protected view of St. Paul's from Richmond Park brutally exposed the limitations of the London View Management Framework



Nobody had noticed this and nobody had raised the clash during the tower's lengthy planning process because when the view was first protected by being inscribed in statute, Stratford existed beyond London's boundaries. When St. Paul's Heights was introduced in 1938, Stratford had fallen under London's jurisdiction but as it was a low-income working-class neighbourhood at the time, no one had assumed a highrise block of luxury flats would ever be built there, a notional negation that was inherited by the LVMF when it replaced the 1938 guidance. The new tower had literally slipped through the statutory net. A robust tall buildings policy with clear and comprehensive and up-to-date strategic view identification and protection would ensure such a harmful error never happens again.

1.15 Historic England

Historic England, formerly English Heritage, possesses no powers to either approve or refuse tall building planning permissions. But, as the government's heritage advisor, it is an important statutory consultee whose

35. Outrage over SOM skyscraper that 'destroys' view of St Paul's (architectsjournal.co.uk) recommendations can have significant bearing on planning application decisions. Historic England however finds itself in an invidious position. On the one hand its natural inclination and strategic priority is obviously to preserve heritage and rigorously protect any heritage asset from the threat or realisation of harm. But on the other hand it is also a dynamic design advocate, unwilling to be seen as a reactionary conservationist and keen to engage in positive discussions about how good, contemporary architecture can enhance, adapt and regenerate historic fabric. Within the fractious world of tall buildings, these dual objectives and the worthy goals that underpin them mean Historic England has the unique potential to unwittingly make enemies with everyone.

Since the beginning of London's second skyscraper boom, Historic England has tried to navigate the choppy statutory waters between height and heritage but has often found itself buffeted by ferocious waves of opposition from all sides. It objected to the Heron Tower, the Walkie Tower and the Shard, losing all three planning inquiries against them. To add salt to the wound, its QC in the latter case coined the supposedly damning phrase that "the tower would be like a shard of glass piercing into the heart of London³⁶", thereby unwittingly providing the gleefully victorious developer with the pseudonym the tower has been known by ever since.

Conversely, English Heritage has either supported skyscrapers in the past, such as the Gherkin and even the gargantuan aborted London Millennium Tower, or declined to formally object, such as in the case of 22 Bishopsgate which surpassed the three aforesaid City schemes it did object to at public inquiry in height. This inconsistency has irked heritage campaigners and in their minds, offered developers the crucial tactical endorsement of conservationist consent.

However, in all these manoeuvres Historic England insist their responses are not determined by ideological rote but by their good faith evaluation of the design principles evident in each individual scheme. This is the approach that underpins their excellent Tall Building Advice Notes which mark a rare policy attempt to offer detailed quasi-statutory guidance that seeks to reconcile tall buildings within their historic contexts – a complicated undertaking. In its latest guidance note Historic England makes its positioning clear:

"Good design can ensure that tall buildings respond positively to the character of their surroundings and the historic environment and can be used creatively to achieve sustainable outcomes."³⁷

1.16 Public Inquiries

Because London has no comprehensive, city-wide tall buildings policy, a disproportionate amount of tall building proposals end up in public inquiry. Inevitably this costs an extortionate amount of money and wastes an extortionate amount of time and, in leaving the final decision to either the planning inspector or the Secretary of State, weaves risk

^{36.} https://www.building.co.uk/news/ prescott-gives-thumbs-up-to-shard-ofglass/1032182.article

^{37.} Tall Buildings Historic England Advice Note 4, 2022

and uncertainty into the planning process as surely and chaotically as if planning applications were decided by Russian Roulette.

The fate of many of central London's most prominent tall buildings was decided at public inquiry and in almost all instances the developer has won, weighting the process inevitably in favour of tall buildings. Some of the most high-profile cases include the Shard, Heron Tower, One Bankside, the Walkie Talkie and St. George's Wharf Tower, the first iteration of the Vauxhall/Nine Elms redevelopment. The most recent tall building-related public inquiry, for the hyper-controversial 72 Upper Ground development, concluded with the Secretary of State refusing to agree with the planning inspector's recommendation that the development was "attractive" yet still deciding to award permission³⁸. Not only does this encapsulate the procedural inconsistencies often woven into the public inquiry system but it also underlines the comparative disregard the process has the potential to extend towards aesthetic concerns.

There are obvious democratic consequences in rendering schemes normally democratically determined by a quasi-judicial planning process subject to the subjective decision-making of the Secretary of State or planning inspector. While the latter is obliged to reach a decision solely determined by the confines set by planning law, the former is not. In cases such as St. George's Wharf - where the then Secretary of State, John Prescott, overturned the recommendation of both the local authority and planning inspector to award permission - the potential for democratic disruption is severe. It was also at this public inquiry that Prescott's advisers were said to have warned him that granting permission "could set a precedent for the indiscriminate scattering of very tall buildings across London³⁹". Prescott shrugged off their concerns which, with tragic prescience, have proven to be absolutely right.

Instead of being the last resort they were designed to be, public inquires have increasingly become the forum in which London's built environment is determined. A comprehensive tall buildings policy will avoid this by adding certainly to a planning process sorely in lack of it and demonstrating in its hopeful efficacy that public inquiries are not a test of policy but a failure of it.

1.17 Civil Aviation Authority

Curiously, the closest contemporary London comes to the height restrictions once tentatively imposed by its successive Building Acts is not imposed by the local authority but by the aviation authority. In order to safeguard flightpaths, the CAA imposes a maximum height of 309.6m for any central London building⁴⁰. In a convenient demonstration of how London's astronomically high land values encourage developers to occupy the maximum building envelope permitted, this is the exact height of the Shard.

- https://www.theguardian.com/cities/2014/ sep/17/truth-property-developers-builders-exploit-planning-cities
- 40. City of London Draft Policies on Tall Buildings and Protected Views,

^{38.} https://assets.publishing.service.gov.uk/ media/65c63d5d14b83c000ca71648/ Called-in_decision_-Former_London_Television_Centre_60-72_Upper_Ground_London_ref_3306162_-9_February_2024_pdf

1.18 Comparative International Tall Building Planning Polices

London is very much a global outlier in not adopting a city-wide tall buildings policy, below are some of the cities, both low and high-rise, that do.

1.18.1 Paris

In marked contrast to its English counterpart, London's closest and historic rival Paris has thoroughly rejected tall buildings from its centre and has instead kettled them in its La Défense financial district just outside the north-west boundary of the city. Traumatised by the reviled 59-storey 210m Montparnasse Tower built in 1973, four years later Paris reintroduced a 36m height limit for every building in the city. These revived height restrictions initially imposed by Baron Haussmann during his Second Empire reconstructions a century earlier, rules that have been responsible for keeping Paris's skyline largely unchanged for the past 150 years. The limit was tentatively relaxed in 2010 when Paris toyed with the idea of following London's lead and experimenting with keynote tall buildings. But this proposition was conclusively rejected when the 36m height limit was definitively reactivated last summer⁴¹.

1.18.2 Frankfurt

Nicknamed "Mainhatten" due to its U.S.-style high-rise skyline, Frankfurt's skyscrapers are not the result of the haphazard development or commercial opportunism that thrives in London but instead are controlled by a strict tall buildings policy that explicitly states where tall buildings can and cannot be located. The city's High Buildings Strategy designates three specific building height zones or clusters in which tall buildings can be built. These zones are located to optimise density at public transport interchanges but even more importantly, they are sited to reinforce the radial structure that is an integral part of Frankfurt's urban grain and character. Frankfurt is proof that a proper high-rise policy framework can cultivate skyscrapers rather than cancel them.

1.18.3 St. Petersburg

With its domes and spires jostling against the banks of the River Neva, the city inspired by the skyline of 17th century London now gives a better visual rendition of the character of 17th century London that London itself does. Like Paris and unlike London, St. Petersburg operates a tight and hyper-controlled planning regimen that protects one of the world's largest UNESCO World Heritage Sites. Within its historic

41. https://www.dezeen.com/2023/06/06/paris-skyscraper-ban/ curtilage building heights are limited to 40m, a modern adaptation of older rules that once stated that no building in the city should be higher than the iconic Winter Palace. Pandemonium ensued when in 2005 a 403m skyscraper by energy giant Gazprom was proposed for the centre of the city, attracting UNESCO disbelief and inciting violent protests at planning meetings. But a court ruling declared the 40m limit inviolate, banishing the tower to a new site towards the edge of the city.

1.18.4 Washington D.C.

Washington maintains one of the strictest skyline policies of any capital city in the world. The 1899 Heights of Building Act, amended in 1910 and sparked by outrage at the construction of the 50m, 12-storey Cairo Hotel in 1894, bans any building from being higher than 49m, with residential buildings limited to 27m and commercial buildings limited to 40m. Only a small slice of downtown commercial district is permitted to house buildings up to the "extreme" 49m limit. In so doing Washington allows its sepulchral democratic monuments, such as the Capitol, the Lincoln Memorial and the Washington Monument to utterly dominate its skyline.

But some argue that this comes at a cost, away from its iconic monuments Washington's architecture is often criticised for its boxy banality and high rents in what is one of the most socially and economically unequal cities in the USA. However bad architecture tends to thrive at any height and current mayor Muriel Bowser's plans to expand the 'corridors' in which the 49m limit is allowed in order to attract more residents to moribund downtown districts⁴² will only likely work if there is a similar uptick in design quality and planning regulation too.

 https://www.axios.com/local/washington-dc/2023/01/10/dc-comeback-plan-pandemic-population

1.2 Tall Storeys: Height vs Housing

It used to be said that an Englishman's home is his castle. Well, if the last 20 years are anything to go by, it could well be his tower. In an extraordinary shift in functional usage, the vast majority of London tall buildings are now residential when in the last century they were commercial. Figs. A8 and A9 reveal the extent of the transformation. Before 2000 the overwhelming majority of buildings over 111m high in London were offices with only 33% constituted as residential, all of which was effectively contained in the Barbican. After 2000 the proportion of office space has halved while the proportion of residential space has more than doubled to 67%. The difference is stark, London's first skyscraper boom was driven by offices, its second is being driven by housing.

FIG A8: Uses of London Tall Buildings* (Today)





FIG A9: Uses of London Tall Buildings* (Before 2000)

*Buildings over 111m high

But what kind of housing is being created? The question is particularly important because London, like much of the country, is in the grip of a chronic housing crisis. Prices have spiralled to such an extent that the value of the average London house is now a colossal fourteen times greater than the average London salary⁴³. In 1970 it was just four times greater⁴⁴. In addition to this, supply has become critically constrained with the GLA forecasting that the capital needs an additional 66,000⁴⁵ homes a year to keep up with current and anticipated demand but only 30,000⁴⁶ homes per year are being delivered on average in recent years, a vicious circle in which prices inevitably get pushed higher.

It is against this backdrop that tall buildings have been presented as a solution to the housing crisis. Exclusive Policy Exchange polling has revealed that provision of affordable housing would be the most popular reason for the public to support tall buildings⁴⁷. Also, many argue that if we are to preserve the greenbelt and prevent horizontal urban expansion the only logical alternative is to build up, confident, as Philip Oldfield, Assistant Professor, Masters in Sustainable Tall Buildings at the University of Nottingham explains, that "skyscrapers... increase population density and help London meet its desperate housing needs."

As Table 4 indicates, a new generation of London tall buildings over 111m high has responded by literally flooding the market with over 22,000 new residential units. But closer analysis of these units reveals some startling statistics. Fig. A10 starkly illustrates how of these over 22,000 units, just 6% are classed as affordable and a staggering 0.3% are classed as social housing. The remainder is primarily earmarked for the luxury market.

- 43. https://www.standard.co.uk/homesandproperty/property-news/average-home-cost-times-typical-income-london-b1097122. html#:~:text=An%20 average%20London%20home%20 now,annual%20income%20as%20 %C2%A336%2C800.
- 44. https://www.financialreporter.co.uk/income-to-house-price-ratio-more-than-doubles-since-the-70s.html#:~:text=As%20 a%20result%2C%20the%20average,to%20 climb%20the%20property%20ladder.
- 45. London Assembly Housing Committee, Affordable Housing Monitor, 2021
- 46.https://www.bbc.co.uk/news/uk-england-london-66306961
- 47. DeltaPoll survey for Policy Exchange, 3,120 respondents, February 2024



FIG A10: Housing Tenure in London's Tallest Residential Buildings Since 2008*

* Based on the 68 post-2008 towers above 111m indicated in Table 4 Table 4

To make matters worse, over the same period London's luxury housing market has ballooned, so too has its housing waiting lists for those seeking social housing. As Fig. A11 indicates, Office of National Statistics figures show that between 2014 and 2022, the total number of households in London waiting for a council house rose from approximately 255,729 to 301,753, an increase of 18%. (The figure for England actually declined). Yet over this exact same period, Fig. A12 shows that the number of luxury housing units provided by London's tallest residential towers increased by a staggering 667%.

These figures reveal that it is patently obvious that while London's tall buildings have certainly been providing a prodigious number of housing units, these units have done virtually nothing to ease the housing crisis. So not only has London been saddled with highly contentious building types to which neither its planning system or historic fabric is particularly well suited, they have also helped solidify social inequality and added intense development pressure onto its suburbs, areas previously never considered appropriate for high-rises. As Fig. A5 showed, it is no longer the central business districts in the centre of London that bear the brunt of tall building construction but inner London and suburbs, threatening their character and intimacy and blurring the critical townscape boundaries that serve to give neighbourhoods in central, inner and outer London their own unique and distinctive civic quality.







* Based on the 68 post-2008 towers above 111m indicated in Table 5

Luxury housing need not be a threat to London. The last 400 years of London's urban development are acutely based on the enduring principle of speculative aristocratic agglomeration and like Nine Elms today, Belgravia, Mayfair, Knightsbridge and Marylebone were unapologetically built for the wealthy. But the difference was these developments did provide public good as well as private profit, embellishing the city with the civic amenities of grand squares, enhanced streetscapes and an embellished natural environment that could be enjoyed by all. The Great Estates offer superlative examples of this methodology, centralising management and ownership to maximise the public benefit its private assets could bestow.

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10 Park Drive 150 42 345 V X X X X 2019 Tower Hamlets The Founding 150 35 186 V X X Y 2019 Tower Hamlets The Founding 150 35 186 V X X Y 79 Southwark College Road Tower A 150 49 817 X X X 120 203 Corydon	22	Southbank Tower	150	41	201	\$	×	×	×	×	1972/2015	Southwark	СT	ñ
The Founding 150 35 186 × X X Y 79 Southwark College Road Tower A 150 49 817 X X X 120 2023 Croydon	23	10 Park Drive	150	42	345	>	×	×	×	×	2019	Tower Hamlets	Canary Wharf Group	ň
College Road Tower A 150 49 817 X X X X 120 2023 Croydon	24	The Founding	150	35	186	>	×	×	×	79		Southwark	British Land	'n
	25	College Road Tower A	150	49	817	×	×	×	×	120	2023	Croydon	Tide Construction	ň

TABLE 4: All London Residential Towers over 111m*

26		149	46	366	>	×	×	×	77	2016	Tower Hamlets	Galliard Homes	NK
27	Highpoint	149	46	343	>	×	115	64	×	2016	Southwark	Realstar Group	Canada
28	· · · ·	147	48	430	>	×	50	×	21	2008	Tower Hamlets	Ballymore	Ireland
29		147	43	408	>	×	×	86	×	2010	Southwark	Brookfield	Bermuda
30		144	42	297	>	×	×	×	82	2018	Tower Hamlets	Galliard Homes	Я
31	Manhattan Loft Gardens	143	42	248	>	×	×	×	×	2018	Newham	Manhattan Loft Corporation	Ж
32		142	45	308	>	×	×	×	108		Tower Hamlets	Ballymore	Ireland
33	24 Marsh W	140	44	386	>	×	×	×	×	2010	Tower Hamlets	Chalegrove Properties	nk
34	Imperial West Tower	139	35	192	×	×	×	59	×	2019	Hammersmith & Fulham	Imperial College London	'n
35		137	36	212	>	×	72	×	85	2019	Islington	Berkeley Group	Ä
36		136	44	360	>	×	×	×	144	2016	Tower Hamlets	Ballymore	Ireland
37	101 George Street	136	44	546	>	×	×	109	×	2019	Croydon	Tide Construction	Ň
38		134	44	425	>	×	104	×	36	2015	Croydon	Berkeley Group	ЯЛ
39	Two Fifty One	134	42	335	>	×	×	×	80	2017	Southwark	Oakmayne Properties	ЯЛ
40	Atlas Building	134	40	302	>	×	×	39	×	2018	Hackney	Rocket Propeties	Ä
41		133	39	905	×	×	×	×	×		Southwark	Greystar	USA
42		133	42	188	>	×	138	×	91	2013	Newham	Genesis Houisng Group	ň
43	One West Point, Legacy Point	128	38	258	>	×	×	15	×	2022	Ealing	City & Docklands	ň
44		128	37	400	`	×	×	15	15	2020	Lambeth	Mount Anvil	ЯЛ
45	10 George Street / Vertus	128	35	327	>	×	×	×	×	2019	Tower Hamlets	Canary Wharf Group	ЯЛ
46	2	126	37	210	>	×	×	×	108		Tower Hamlets	Ballymore	Ireland
47		126	37	231	>	×	28	×	52	2020	Lambeth	Barrett London	ň
48	Sirocco Tower (Harbour Central)	125	36	200	>	×	×	×	82	2018	Tower Hamlets	Galliard Homes	ň
49	Thames City (Build	125	36	227	>	×	×	×	×	2022	Wandsworth	R&F Properties	China
50		124	37	284	>	×	×	×	×	2016	Southwark	Lendlease	Australia
51	Crommwell Tower (Barbican)	123	43	111						1973	City	Corporation of London	Я
52		123	43	117						1974	City	Corporation of London	Я

5	Shakespeare Tower (Barbican)	123	43	116						1976	City	Corporation of London	Я
54	One Crown Place Tower 1	123	33	130	>	×	×	×	×	2020	Hackney	MTD Group	Malaysia
55 (Consort Place, Tower 2 (Alta)	122	34	139	>	70	×	69	×		Tower Hamlets	Far East Consortium	China
	Pan Peninsula West Tower	122	39	356	>	×	50	×	21	2008	Tower Hamlets	Ballymore	Ireland
	1 Casson Square	122	37	199	>	×	×	×	66	2018	Lambeth	Canary Wharf Group	ж
58	Stratosphere Tower	122	39	280	>	×	×	×	62	2017	Newham	Telford Homes	Я
59	Chelsea Waterfront West Tower	122	37	179	>	×	50	×	54	2017	Hammersmith & Fulham	Cheung Kong Property Holdings	China
909	Elephant Town Centre, Tower 1	121	36	230	N/A	N/A	116	N/A	49		Southwark	Delancey	'n
61	Sky Gardens Nine Elms	120	35	204	>	×	×	35	×	2017	Lambeth	Frasers Property	Singapore
	Centre Point	117	35	82						1967	Camden	Harry Hyams	Я
	Elephant Town Centre, Tower 3	117	35	485	N/A	×	×	172	×		Southwark	Delancey	Я
64	209 Connngton Road Tower	117	34	220	N/A	N/A	45	N/A	27		Lewisham	Meyer Homes	¥
65 0	Chronicle/Lexicon Tower	116	36	307	>	×	×	107	×	2017	Islington	Mount Anvil	Я
99	The Stage, Shoreditch	115	38	412	>	×	×	×	×	2022	Hackney	Galliard Homes	Я
	Rudolph Place	115	37	841	×	×	×	×	×	2021	Lambeth	Downing	'n
	Queen's Quarter (Building 1)	114	35	251	×	×	06	×	172	2021	Croydon	Bridges Fund Management / HUB	ň
69	Millharbour Village (West G2.2)	113	35	194	>	×	×	×	108*		Tower Hamlets	Ballymore	Ireland
	Insignia Point, Victory Plaza	113	30	250	×	×	×	×	×	2018	Newham	Get Living	Я
71 0	Cassini Tower	112	35	150	>	×	×	×	440		Hammersmith & Fulham	Berkeley Group	Я
	The Heron	112	35	284	>	×	×	×	×	2013	City	Heron International	Я
	St. Paul's Cathedral	111											
			TOTAL UNITS	22144		20	630	1364					

Orange shading refers to buildings built before the year 2000. Pink shading refers to buildings under construction.

This egalitarian socio-economic exchange is painfully absent from contemporary high-rise residential developments and nowhere indicates this unfortunate trend more powerfully than the River Thames. For 2,000 years the Thames has not only served as London's largest natural artery but its largest public space – London's entire character and identity condensed into a vast maritime signature scrawled through the city. Accordingly, throughout history it has been deliberately lined with monuments to London's public and civic life from the Palace of Westminster and Somerset House to the Royal Festival Hall and the Millennium Dome.

Yet now, increasingly, its shores are clogged with a with a glass cliffedge of tall buildings that unashamedly owe their allegiance to private profit rather than public good, selfishly spoiling and snatching river views intended for public communal amenity and cynically commoditising them for private residential benefit. The South Bank appears to be playing host to some of the worst eruptions of this trend with high-rise high-end riverside developments like Doon Street Tower, South Bank Place, One Blackfriars, Bankside Yards and the ferociously controversial and recently approved 72 Upper Ground (see Fig. 1.30) all greedily exploiting the Thames for its commercial exclusivity and thereby ridiculing both it and the pioneering post-war principles of egalitarian cultural enrichment on which the South Bank was originally founded. It is a process the public also appears to disagree with, recent polling shows that 56% of them consider it appropriate to line the Thames with tall buildings while only 29% thought it appropriate⁴⁸.

Urbanistically, tall buildings can be problematic too. They immediately emphasise the object rather than the street (or river), instantly and emotionally detaching the viewer from the public realm and diminishing the importance of the street. Only the American tradition of skyscrapers seems able to convincingly carve streets out of skyscrapers, as the highrise canyons cut like scythes through New York dramatically demonstrate. Without this tradition replicated in Britain, it is inevitably harder to reconcile street with skyscraper and the latter is often (though not always) surrounded at its base by defensive doughnut of service or amenity space that serves to physically to and psychologically isolate it from public realm.

This isolation is further exaggerated if the housing contained within the tower solely serves a luxury market. It has long been a common urban complaint in London that many of the flats in the capital's luxury tower blocks serve as little more than safety deposit boxes for absent foreign investors, with just over a third of the developers responsible for London's tallest residential blocks based abroad. (See Fig. A13). This is said to be particularly evident in Nine Elms where, for some, counting the scarce number of illuminated windows at night is said to be an anecdotal, grievance-led indicator of the fact that most properties are likely unoccupied.

^{48.} DeltaPoll survey for Policy Exchange, 3,120 respondents, February 2024



FIG A13: Origin of Development Corporations on London Tall Residential Towers*

As the first totemic high-rise of the Nine Elms development St. George's Wharf Tower in Vauxhall, (another riverside development and one whose five-storey summit penthouse was sold for £51m), has come in for criticism for its alleged high solicitation by foreign investors and accusations of low local residential occupancy. In 2016, John Prescott, the former Communities Secretary of State who override the advice of his planning inspector and the local authority to approve the tower at public inquiry, defended his decision by saying that he "didn't envisage that it would be given over to people investing in London" and that he had "no power to stop it on the grounds of who was going to occupy it⁴⁹." London has always been an international city and foreign investment in it should be unreservedly welcomed. But the tall building format appears to be particularly poor in convincing the public that private profit can procure public benefit.

Tall buildings also mark a breach from London's most popular housing model, the terraced house. Almost nine million people live in London and they live in just over 3.5 million residential dwellings. 58% of these dwellings are houses with the remainder being flats. This compares to New York where of its 3.4 million dwellings less than 9.5% are houses with the remainder – a vast majority of over 3 million - being flats. Of the 58% of London dwellings that are houses, terraced housing forms by far the largest contingent, 47%. Semi-detached and detached houses account for 39% and 14% respectively⁵⁰.

This housing mix is central to London's character and is one of the aspects of the city that compelled famed Danish urbanist Steen Eiler Rasmussen to, in 1939, label London "one of the most civilised cities on

buildings over 111m built or under construction in London since 2002 as per Table 5

^{49.} https://www.theguardian.com/society/2016/ may/25/john-prescott-foreign-ownership-london-tower-skyscraper

^{50.} Ike Ijeh, Understanding the Character of the city, Lund + Humphries, London, 2020

earth⁵¹". Houses also tend to project more individuality than flats, they represent the infinity of the urban condition reduced to a more scalable bitesize and externally customisable chunk. This intimacy of domesticity combined with the emphasis on the individual rather than the collective (at least in residential terms) has an extraordinarily civilising effect on mass urbanism and is a core component of London's character and appeal. It is much harder for tall buildings to summon this sense of intimacy and domesticity than it is for houses or mansion blocks.





Source: ONS

But one thing houses are not necessarily primed to deliver is density. While Fig. A14 shows that London remains the most dense city in the UK, Fig. A15 reveals that London's residential density is significantly lower than many of its comparable global peers. Tall buildings are commonly misinterpreted as being the best means to deliver density as they are able to vertically stack more units onto the same site. However, in reality they are often less effective at securing high density than their mid-rise counterparts who are able to deploy horizontal stacking which, while encroaching upon more land, is less expensive to build, makes lower proportional demand on surrounding amenity and service space and is more relatable to streetscape, urban context and human scale.

^{51.} Steen Eiler Rasmussen, London: The Unique City, Penguin Books, Harmondsworth, 1934

Fig. 1.13 With its mix of tall townhouses. Tree-lined avenues and red-brick mansion blocks, Maida Hill just northwest of central London is the densest neighbourhood in the UK



Global cities underline this observation. After spending two decades cramming London full of tall buildings, London's density is still significantly lower than that of comparable low-rise cities like Paris and Barcelona. These are cities that have largely if not entirely, eschewed London's high-rise example and instead are able to house vast numbers of people in street-facing courtyard apartment blocks of five to six storeys. Not only is this arrangement typical on the continent (but is largely absent from the UK), it also helps preserve heritage assets and historic fabric.

Moreover, despite all the towers crammed into London boroughs like the City, Tower Hamlets and Southwark, surprisingly the densest neighbourhood in the entire UK is Maida Hill⁵² in the City of Westminster, a borough that possess only one tall building over 111m in height. Needless to say, it is not situated anywhere near Maida Hill which instead is able to procure its exemplary density ratio by virtue of its tightly-packed network of flats, mansion blocks, and sheltered, tree-lined avenues of tall, three and occasionally four-storey terraced houses. The notion that tall buildings are uniquely primed to achieve high densities is one that should be put to bed for good.

> 52. https://www.timeout.com/london/news/ this-london-neighbourhood-is-officially-the-uks-most-overcrowded-area-110723



FIG A15: Comparative Densities of Global Cities

However, one thing residential towers can be relied upon to provide is a vast construction bill. The additional considerable demands tall buildings make on structure, safety and services make them an inherently expensive undertaking, one likely to be rendered even more costly when the post-Grenfell installation of two fire escape staircases in all buildings over 18m becomes mandatory in 2026⁵³. With every square foot having an increased cost implication the higher a building goes up, sacrificing more floor area to circulation space rather than commercially valuable habitable area is going to make justifying tall buildings an even more fiscally taxing exercise. Woking Borough Council, which went bankrupt last summer partially as a result of its high-stakes investment in a residential tall building project⁵⁴, serves as a salutary reminder of the potential pitfalls therein. Their sustainability credentials are also famously unimpressive, with tall buildings demanding disproportionate outlays of embodied energy, carbon energy, mechanical servicing and climactic mitigation. As carbon profiling expert Simon Sturgis explains, "The higher you go, the more inefficient the building becomes in terms of the net area measured against carbon emissions from operation, construction and maintenance.⁵⁵"

- https://www.building.co.uk/news/gove-setsout-30-month-grace-period-for-secondstaircase-rule/5125953.article
- 54. https://www.theguardian.com/politics/2023/jun/07/woking-council-declares-bankruptcy-with-12bn-deficit
- 55. https://www.building.co.uk/main-navigation/can-tall-buildings-ever-be-sustainable/5074035.article

Fig. 1.14 A visualisation of the Victoria Square scheme in Woking, a development that put severe financial pressure on the local authority and also made Woking the unlikely home to some of the tallest residential buildings in Britain



Sustainable design consultant Lynee Sullivan echoes these sentiments and summarises the impact of tall residential towers as thus:

"These towers are often privatised vertical cities that essentially operate as safety deposit boxes for foreign investment. Towers can't replicate the vibrancy of public realm or the liveability of streets. They have more negatives than positives and there are better density models.⁵⁶"

One man for who residential towers are famously anathema is Peter Rees, former chief planner in the City of London for 29 years. While he saw fit to preside over an unprecedented explosion of tall buildings in the City, a free-for-all contagion which inevitably spread to all corners of the capital, he is oddly resolute in his opposition to residential towers, vehemently insisting, presumably with a complete absence of irony, that they "do not achieve high densities and leave unusable space on the sites which they do not fill. Those of us who feel passionate about the form and future of our amazing city are sad to see it being trashed".⁵⁷.

56. https://www.building.co.uk/main-navigation/can-tall-buildings-ever-be-sustainable/5074035.article

57. https://www.theguardian.com/cities/2014/ apr/20/english-heritage-boris-johnson-london-towers

1.3 History Matters: Height vs Heritage

England is an old country and London, like many British cities, is an old city. As such, historic fabric is an integral part of England's urban and rural character. This is not a prejudicial ploy to minimise the huge value and significance of contemporary architecture, it is simply a statement of fact. All historic cities need protections in place to ensure that new development can proceed without undue harm to heritage assets. But British cities might need them more than their European counterparts.

There are three historic reasons why British cities may require unique heritage protections, walls, war and workers. Regarding the first two, on the continent the tradition of defensive city walls endured for far longer than it did in England, sometimes until as late as to the nineteenth century and beyond. But in England city walls were dispensed with centuries earlier, primarily because canny mediaeval kings sought to temper the maniacal ambitions of a potentially seditious aristocracy by giving them a higher degree of authority and autonomy than was generally the case on the continent, thus relieving them of the pressure to acquire it by force. Consequently, English cities were generally far less fearful of insurrection and invasion from ambitious nobles than European ones so were happy to dismantle their city walls centuries before urban fortifications became redundant in French or Italian cities.

As well as the lack of English city walls also encouraging the horizontal urban expansion, (particularly in London) that is now largely to blame for the comparatively low densities of English cities, there was another significant heritage consequence of these feudal defence strategies. On the continent vast numbers of cities retain the 'Old City' arrangement of an intricately preserved and protected historic centre constrained by the endurance of city walls and with modern expansion only permitted outside them. While Britain, almost uniquely, does not. Therefore commonly in Britain new and old mix together, a circumstance further enabled by extensive wartime bombing and one that demands both surgical and strategic protection to ensure that the heritage is not harmed by its proximitous modern neighbours.

The workers refer to the explosion of urbanisation in the 19th century, fuelled by the Industrial Revolution, pulling ever greater numbers of workers and residents from the countryside to the city. The British establishment effectively created the world's first mega-city in London and then, appalled at the teeming mass of disease, overcrowding and pollution that came with it, recoiled in horror and fled back to the bucolic repose of the countryside, to which, in any case, the natural English temperament harboured a stronger emotional attachment.

As a result, the English upper and middle-classes maintain to this day an ambivalence toward their cities that does not necessarily exist in other European cultures. With their fountains, piazzas and palazzos, Italian cities are seen as direct dynamic expressions of Italian culture and identity. But for all the fantastic energy and charisma of British cities, here and with few exceptions, an adjacent preponderance of scarred post-war urban townscapes often relegates cities to the status of pragmatic functional entities for the business of living and working as opposed to romanticised cultural of emblems of proud national identity. When it came to modern British cities, until recently, beauty was a byword.

Fig. 1.15 New Zealand House as viewed from Trafalgar Square shortly after its 1963 completion hurls a wrecking ball into the composure of surrounding historic streetscapes



It is into this curious urban maelstrom of stylistic diversity and emotional detachment that tall buildings first ventured in the 1960s. And it is precisely because of the lack of an Old City tradition and the nascent urban ambivalence welded into the British psyche that Britain's first skyscraper wave was able to inflict such harm onto Britain's historic environment.

In London some of the worst offenders were towers like New Zealand House (Fig. 1.15) Portland House Victoria, the London Hilton Hotel, Hyde Park Barracks and Millbank Tower, all of which violently interrupt the intricate tapestry of low and mid-rise classical streets and squares that surround them and cause irreparable harm to local historic character, continuity and streetscape and, in the worst instances, national heritage assets like Trafalgar Square and the Palace of Westminster.

Many of these 1960s buildings from London's first skyscraper boom have come in for ferocious levels of criticism from multiple public figures.

Celebrated post-modernist architect Sir James Stirling dubbed New Zealand House "alien and ugly" while comedian Spike Milligan mused dryly that it "invited destruction." Art historian and former Tate director Alan Bowness lamented that Hyde Park Barracks was "an obtrusion on Hyde Park" while the 7th Marquess of Anglesey derided it as "a feeble piece of architecture". Famed artist Eduardo Paolozzi, designer of the iconic murals that once adorned Tottenham Court Road tube station, slammed the Barbican as "inaccessible, inhuman, but hopefully not indestructible" and in a 1987 poll, former Times editor and Arts Council chair William Rees-Mogg selected the controversial London Hilton Hotel on Park Lane as the London building he would most like to see demolished⁵⁸.

This volley of criticism was a defining factor in soon making it clear that special protections were needed to ensure that our urban heritage assets weren't overwhelmed by a rapacious rate of redevelopment and change. They eventually came in two main forms, conservation areas and listing protection for historic buildings. But it is the conservation areas that are most intricately related to the issue of tall buildings.

Since they were introduced by the Civic Amenities Act 1967 with their mandate to protect areas of "special architectural or historic interest⁵⁹", Britain's 10,000-plus conservation areas have been exemplary custodians of our built heritage and have been responsible for preserving the character and quality of countless otherwise threatened locations. However, as London's second skyscraper boom rages on there have been multiple instances when local heritage guidelines have been overruled to permit the construction of tall buildings either in or within the vicinity of conservation areas. This is the case with all the recent tall buildings below:

- The Shard (2012)
- 22 Bishopsgate (2019)
- Heron Tower (2010)
- 8 Bishopsgate (2023)
- 1 Leadenhall Street (Under construction)
- Gherkin (2003)
- 100 Bishopsgate (2019)
- Principal Tower (2019)
- Walkie Talkie (2014)
- 40 Leadenhall Street (2023)
- Southbank Tower (2015)
- Pan Pacific London Hotel (2020)
- Willis Building (2007)
- One Crown Place (2020)
- 1 Casson Square (2018)
- Chelsea Waterfront West Tower (2019)
- 20 Ropemaker Street (Under construction)

58. https://londonist.com/london/londoners-in-1987-wanted-to-demolish-these-buildings

59. Civic Amenities Act 1967
Fig. 1.16 One Crowne Place has been constructed directly inside the Sun Street conservation area



This extraordinary list (which does not include proposed schemes, of which there are several) brutally exposes a reality has been becoming more and more apparent for decades: that while well-meaning, the conservation area model is fatally ill-equipped to single-handedly protect areas of historic sensitivity from high-rise overdevelopment and is therefore catastrophically outdated as a tool capable of unilaterally providing the unique heritage protections demanded by a conservation sector facing an unprecedented onslaught of high-rise construction across the country.

It is clear conservation areas are powerless to prevent high-rise construction from even within their curtilage. And even when they do, such is the prominent visual nature of tall buildings that a tall building not located within a conservation area can still have a devastating visual impact on conservation areas that surround it. Fig. 1.17 As well as being in a conservation area, if plans for 85 Gracechurch Street go ahead (it has already received planning permission) Leadenhall Market - barely visible here to the bottom left of the left picture despite being one of the oldest markets in London - will be reduced to a visual irrelevance



Yet again the City, which increasingly appears to view heritage as an annoyance rather than an asset, provides an unsettling case in point. The City of London contains 27 conservation areas, some covering areas as large as the whole Barbican Centre itself and some as tiny as the eponymous medieval passages they are named after. Yet it is preposterous to suggest that skyscrapers such as the vertical slab that is 22 Bishopsgate - at 62 storeys high Britain's second tallest building and three times as wide as the M25 motorway - will not have a colossal and destabilising impact on sensitive heritage assets well beyond its site boundaries.

Equally, if one analyses a map of skyscrapers in the City and overlays it with a map of the City's conservation areas, it becomes clear that most towers are skilfully concentrated in the narrow gaps that aren't covered by conservation areas. Which means that in the City, conservation areas have been as counterintuitively effective in identifying areas for tall building development as they have been in protecting areas from it. Well-meaning as they are, within a tall buildings context conservation areas are now at best, impotent in the face of harm or at worst, implicit in its infliction.

Inexplicably, some of the most egregious conservation area infractions look set to be visited upon historic Leadenhall Market. Already a tower is rising on one side of the market entrance (1 Leadenhall) while another was recently given planning consent on the other side (85 Gracechurch Street). Of the three buildings only one, the 1 Leadenhall Tower, is not in a conservation area but even this still sits on the boundary of one. The result being that when both towers are finished the entrance to one of the oldest markets in Britain will be pinched between a two-fingered visual vice more than ten times its height, a gross Lilliputian insult that once again sees the City patronising the principle of preservation and infantilising historic architecture by relegating it to the status of comical decorative anecdote. Imagine the entrance to Milan's Galleria Vittorio Emanuele II or Budapest's Párisi Passage despoiled in this way. It is inconceivable that any other European capital would treat its heritage with such disregard. It is time therefore for conservation areas to receive a new tier of protection in the form of the tall buildings policy described in the second half of this paper.

While some may take issue with UNESCO's democratic mandate, it exists as the world's foremost conservator of built heritage and its World Heritage Site status is a coveted civic accolade across the globe. While it has not yet followed through, UNESCO has repeatedly threatened to remove World Heritage status from central London's two World Heritage Sites, Westminster and the Tower of London. In both instances it expressed legitimate fears about the unacceptable encroachment of nearby high-rises on their respective settings and it has, amongst other things, called for the installation of protective buffer zones around the Sites, requests resisted by the British government.

But in 2021 UNESCO did follow through with its threat and heaped international embarrassment onto the British government by stripping Liverpool of its World Heritage Site status, only the second time it has done this after similarly punishing Dresden in 1996. The reasons were similar to those cited in London, the risk of insensitive high-rise redevelopment causing potential harm to historic fabric and character. With typical Liverpudlian mettle, the city appeared sanguine about the loss but in the intervening years has done much good work responding to UNESCO's concerns. The culmination came last year when it adopted a new tall buildings policy in the form of Supplementary Planning Guidance⁶⁰. Amongst other things it sets a tall buildings limit of 50 storeys for the city and identifies zones where high-rise clusters may be appropriate, a welcome move towards the statutory prescriptiveness a proper tall buildings policy demands.

But in its absence in other cities, key heritage assets are still at the mercy of weak conservation areas and ineffectual planning. The listed building process stops our historic fabric being demolished but the conservation area and planning systems seem unable to stop our historic fabric being demeaned. Historic Royal Palaces, the charity that manages the Tower of London and other royal properties perhaps summed up the frustration of the heritage lobby at the constant encroachment of tall buildings. When formally objecting to proposals for the Tulip observation tower in 2019, it wearily complained that "the height, proximity and self-consciously dramatic design of the proposed development would diminish the Tower of London World Heritage Site, reducing it to the appearance of a toy castle⁶¹."

60. https://www.placenorthwest.co.uk/liverpool-to-adopt-tall-buildings-policy/

^{61.} https://www.bdonline.co.uk/news/historic-royal-palaces-wants-fosters-tulip-axed/5097097.article

Fig. 1.18 The Tower of London (bottom right) has been likened to a "toy castle" lurking beneath a wall of skyscrapers yet in a measure of its huge historic and tourism significance, it is the most visited castle in Europe and has been described as "the most complete example of an 11th century palace" in Europe



And this is exactly what is at stake if tall building development is not properly managed and controlled enough to prevent harm to Britain's historic environment. This is a matter of acute public concern, exclusive Policy Exchange revealed that 65% of the British public believe tall buildings should not be permitted at all in historic areas. A further 71% believe they should not be allowed to intrude on historic views⁶². And away from the British public the heritage of both Britain and London in particular is a significant soft power, casting out an enduring image of permanence, stability and calm resilience that helps construct an image of British identity across the world. In London it is that image that has helped drive the city's astonishing success and while foreign visitors may see skyscrapers when they come to London, when they think of London it is invariably a London of squares, terraces, monuments and tradition they call to mind.

The tourism industry is a serious economic contributor for both London and the UK generating around £74bn annually for the UK economy and constituting around 3.6% of total UK GDP⁶³. Equally London spent most of the decade prior to the Covid pandemic as the most visited city in the world⁶⁴ and currently, depending on which international ranking methodology is used, remains in the top two or three⁶⁵. Nobody is suggesting that urban planning must be determined by tourism and tall buildings have not, as yet, diluted London's brand appeal. But conversely it would also be foolish to ignore the built heritage that helps form the unique selling point of one of the UK's most profitable industries.

Of course, heritage can and must co-exist with modernity but it is crucial that it is not cowed or eroded by it. For this rich historic legacy are the very assets that attract the property values and investors and developers that propose tall buildings in the first place so they too can cut for themselves a slice of London's success. But unless these tall buildings are properly guided and controlled with sensitivity and respect for the heritage that helped generate the market they now seek to profit from, then the goose may end up being poisoned by her golden eggs.

- 62. DeltaPoll survey for Policy Exchange, 1859 respondents, December 2021
- 63. https://commonslibrary.parliament.uk/re-search-briefings/sn06022/
- 64. https://www.telegraph.co.uk/travel/destinations/europe/united-kingdom/england/ london/articles/London-is-the-worlds-mostpopular-capital-again/
- 65.https://www.euromonitor.com/ press/press-releases/dec-2023/euromonitor-internationals-report-reveals-worlds-top-100-city-destinations-for-2023

1.4 Building Beautiful?: Height vs Beauty

There is no doubt that tall buildings can be beautiful and exhilarating, The challenge is achieving this and preventing the onslaught of ugly eyesores that have flung themselves onto Britain's urban landscape in recent years. Modern Britain presents a veritable rouges gallery of poorly designed tall buildings (below) and they serve as a chilling reminder of the primary importance of ensuring that tall buildings are always beautiful.



Building Beautiful advocates for the highest quality design standards to be deployed on Britain's architecture and built environment. Below is how its principles could be applied to tall buildings.

1.41 Context & Heritage

Figs. 1.19 & 1.20 The form of the Shard is directly inspired by the masts, spires and steeples that once crowded on and around the Thames



The fact that tall buildings are resolutely modern structures does not mean they cannot reinterpret or be inspired by the context and heritage of their site and their city. With its dynamic form and shimmering glass skin, nobody would deny the Shard is a conspicuously contemporary construction. And yet, its narrow pyramidal silhouette evokes the slender church spires and steeples that once formed the key visual components of London's skyline. It also recalls the ship masts that once filled the Thames. So despite its modernity and soaring height, in making these subtle references to familiar imagery so synonymous with London's past, the Shard itself becomes a monumental glass steeple emphatically embedded in the heritage and identity of its city.

1.42 Scale vs Height

Figs. 1.21 & 1.22 Although St. Paul's is taller than Brighton's Sussex Heights, its human scale defies its size and grandeur to emit a more intimate character



The way in which tall buildings are articulated can have a significant impact on how well we as humans can relate to them. St. Paul's Cathedral is 111m high yet is elevationally expressed as a gigantic two-storey building instantly making it feel more human and accessible. It has great height but a human scale. Sussex Gardens in Brighton on the other hand is a shorter building than St. Paul's at 102m. But because its elevation horizontally inscribes each of 24 floors, it's scale and impact feels larger and more dominant than St. Paul's even though its height is more modest. This was a trick well known to medieval and classical builders and Table 5 shows the modern and historic buildings able to reach great heights without being articulated as tower blocks.

	Building	Height (m)	Completion	Function	Style	Historic England Listing
1	London Eye	135	2000	Monument	Modern	Unlisted
2	Wembley Stadium (Arch)	133	2007	Sports	Modern	Unlisted
3	ArcelorMittal Orbit	115	2012	Public Art	Post- Modern	Unlisted
4	Battersea Power Station	113	1935	Industrial	Modern	Grade II
5	St. Paul's Cathedral	111	1710	Religious	Baroque	Grade I
6	Parliament (Victoria Tower)	102	1860	Government	Neo- Gothic	Grade I
7	Bankside Power Station/Tate Modern	99	1947	Industrial/ Cultural	Modern	Unlisted
8	Parliament (Big Ben)	96	1860	Government	Neo- Gothic	Grade I

TABLE 5: Tallest Non-Skyscraper Buildings in London

Tall Buildings: A Policy Framework for Responsible High-Rise & Better Density

9	Westminster Cathedral	87	1903	Religious	Neo- Byzantine	Grade I
10	Westminster Abbey	69	960	Religious	Gothic	Grade I
11	St. Paul's Cathedral (Towers)	67	1710	Religious	Baroque	Grade I
12	The Monument	62	1677	Monument	Baroque	Grade I
13	Nelson's Column	52	1843	Monument	Classical	Grade I
14	Southwark Cathedral	50	1106	Religious	Gothic	Grade I

1.43 Contrast

Fig. 1.23 In a City of London full of visual and stylistic contrasts, the clash or harmony between the Gherkin and the St. Andrew Undershaft is one of the most dramatic



Because the City of London's loose conservationist approach has led to stylistic variety within its urban fabric, contrast plays a significant role in the visual experience if offers. Moreover, it is one of the dynamic and enlivening facets that differentiates London from its more preservationist continental counterparts. However, problems can potentially arise when contrast is casually used to justify virtually any form of development, including those inappropriate enough to cause harm. If contrast is acceptable then, by extension, it becomes harder to define what may be unacceptable and that way lies chaos. Policy is the key to warding against this and ensuring that all tall buildings meet a standard of design that enables contrast to positively enhance both parties rather than causing harm to either one.

1.44 An English Skyscraper?

Fig. 1.24 Blackfriars Circus attempts to blend English and American tall building ideals



While a London vernacular style of low and mid-rise residential architecture has been successfully developed over the past 15 years, the same has not happened with regard to high-rise buildings. But the possibility of a new skyscraper vernacular directly inspired by local streetscapes, forms, frontages and materials presents an intriguing architectural possibility. It is also one that could be helpful in destigmatising the tall building brand and ensuring that it relates more successfully to context and users. Fig. 1.25 While not a skyscraper per se, had the vast neo-Gothic Imperial Monument Tower proposals (1904) been built it would, at 168m tall, not only have been well over twice the height of the adjacent towers of Westminster Abbey but might have ushered in a new and as yet unrealised tradition of English skyscrapers



- 1.45 (Tall) Building Beautiful
- Fig. 1.26 The City of London skyline



Under most objective measures, it would be difficult to describe the skyline of the City of London today as beautiful. It is incoherent, discordant and chaotic and lacks the overall unity to command an arresting profile or, in its frenetic scrum of jostling misshapen perfume bottles, the individual elegance to offer incidental moments of joy. Many have said as much, with philosopher Alain de Botton lamenting that the current skyscraper boom is turning the capital into a "bad version of Shanghai or Dubai⁶⁶", columnist Simon Jenkins bemoaning the "urban anarchy" that was permitting "a forest of giant towers to wreck the city⁶⁷" and architectural press title Building Design bluntly proclaiming, "London's skyline is a mess, should architects feel ashamed⁶⁸?"

The public seems to be of a similar opinion. When recently polled on which skyline arrangement they considered to be most visually successful, the British public selected both Rome and Paris over London. Rome, with its virtual ban on tall buildings came first. Paris, with the vast majority of its tall buildings famously kettled in its financial La Defense district just outside the historic centre, came second. And London, where, to all intents and purposes and as we have seen, tall buildings are largely allowed to proliferate anywhere, came third⁶⁹.

Figs. 1.27 – 1.29 In a recent survey, the public selected Rome (top) as the most visually successful skyline arrangement followed by Paris (centre) and then London (bottom)



- 66. https://slate.com/human-interest/2015/07/ alain-de-botton-says-that-londons-currentskyscraper-boom-is-decimating-the-city-sskyline.html
- 67. https://www.theguardian.com/commentisfree/2007/sep/28/communities.comment
- https://www.bdonline.co.uk/opinion/londons-skyline-is-a-mess-should-architectsfeel-ashamed/5112799.article
- 69. DeltaPoll survey for Policy Exchange, 3,120 respondents, February 2024



It was not meant to be like this. When London's current skyscraper boom began at the start of the Millennium, beauty and design quality were supposed to be hardwired into the planning and architectural processes designed to deliver them. In fact, Mayor Livingstone was arguably the first to turn beauty into a political tool when his first London Plan assured nervous Londoner that towers would *only* be permitted if they were of an "exceptional design standard⁷⁰", shrewdly turning what was once a negative prohibition against towers into a positive commitment to quality.

Time and time again this commitment was made, with "exceptional design" also being cited as the reason the Shard public inquiry found in favour of the developer. And yet, with few exceptions, London's skyline is now defined by an ungainly assortment of carbuncles, boils and bollards. In fact, over the past thirteen years, London tall buildings have won the

70. The London Plan, 2004

Carbuncle Cup - the now defunct annual award for the worst British building – a record-breaking four times.

The solution lies in policy and design. But this time, unlike the early 2000s, design will not be left to its own devices, those lessons have been learned. It will be guided by the new Tall Building Policy revealed in the next part of this paper, a policy expressly conceived to make tall buildings, and the skyline that cradles them, beautiful.

Fig. 1.30 The recently approved and highly controversial 72 Upper Ground development has been nicknamed 'The Slab' by its detractors and typifies the lack of beauty now commonplace within London's skyline



SECTION II: The Policy

2.0 The Tall Buildings Policy

The proposed Tall Buildings Policy (TBP) is not anti-high-rise nor does it seek to ban tall buildings. Instead its aim is to provide a firmer policy framework to guide and control their development than is currently the case. As part of this it will encourage greater protection for heritage assets, more rigorously prioritise beauty and design quality, strengthen public consultation and, in the case of residential towers, encourage consideration of alternative housing typologies that may be more suitable to deliver higher densities and evoke greater contextual sympathy with the traditional townscapes and vernaculars from which the vast majority of Britain's urban landscape is formed.

To gain a fuller understanding of the positive impact the TBP seeks, it is important to consider what the TBP will not do. It will not ban tall buildings, it will not impose height limits, it will not dictate style, it will not suppress commercial or residential development and it will not embalm cities in aspic rendering them impervious to change. Nor will it seek to micromanage every element of the design, approval and construction process for tall buildings and in a great many of these areas, from sustainability to economic viability, the TBP is deliberately silent and relies on existing guidelines, legislation and commercial practices. For instance, the stricter regulatory environment ushered in after the Grenfell tragedy which has already seen high-rise single staircase floorplans banned in London and likely to be banned in the rest of the country, is not a debate the TBP wishes to equivocate upon. Instead by a more productive process of encouragement, collaboration and increased public participation, it will seek to strike a more equitable balance between the needs of development and those of conservation and communities.

None of this seeks to reduce housing supply within the midst of a national housing crisis. In fact, the TBP has been specifically designed to actively promote increased residential development by removing barriers to mid-rise housing typologies that are better placed to deliver additional residential units across the economic spectrum than tall buildings are. By producing more affordable housing developments whose more amendable contextual characteristics instantly avoid the controversy and acrimony that so often dogs tall building proposals, the TBP seeks to increase housing supply and help ease the housing crisis. Fundamentally the TBP is incontrovertibly driven by the maxim that what is most important about architecture is not whether it is short or tall but whether it is good or bad.

Finally, the TBP is backed up by extensive public polling⁷¹. 56% of the

71. DeltaPoll Survey for Policy Exchange, 1859 respondents, December 2021 public believe there should be new planning regulations to more effectively control the development of tall buildings while 40% considered that current planning regulations have done a poor job of controlling high-rise development. Just 31% believed they have done well.

This paper proposes exactly what those new planning regulations should be. For the first time we propose that London, and any city in England and Wales that wishes to progress high-rise schemes, should have in place a comprehensive, coordinated, tall buildings policy to guide the development of high-rises across the city. The detail of this policy is outlined in this second section of this paper.

This section of the paper will explain in detail how the TBP will work. This initial chapter 2.0 will describe how the TBP will be implemented by providing a more detailed analysis of the report recommendations included in the Executive Summary at the start of the paper. The subsequent chapters 2.1 to 2.7 will explain what the TBP is by providing a detailed step-by-step analysis of its contents and requirements.

2.01 Detailed Recommendations

RECOMMENDATION 1: Government should legislate to require that all local authorities in England and Wales that wish to consider planning applications for multi-storied buildings over 60m (197ft) in height must first have an approved Tall Buildings Policy in place. Compliance with Tall Building Policies will become a mandatory, statutory planning requirement for any tall building proposal over 60m across England and Wales.

RECOMMENDATION 2: A Tall Building Policy could either be part of the Local Development Plan or a separate statutorily enforceable document. Councils that do not produce this plan would lose the ability to consider planning applications for tall buildings over 60m in height. Councils that did not wish to have tall buildings within their jurisdiction would not be required to have a Tall Building Policy.

The Tall Buildings Policy will be a voluntary framework that participating local authorities only need join if they wish to retain the legal right to consider planning application for proposed buildings over 60m in height. While the definition of exactly which height constitutes a tall building varies and there is no national or international standard that defines it, the 60m (approximately 20 storeys) threshold has been chosen as this meaningfully relates to what most of the general public would objectively consider a tall building to be. The threshold also recognises the wide-ranging and unique strategic impacts buildings above this height tend to wield. Throughout the TBP, the term "tall building" will always refer to buildings of 60m or taller.

The paper recognises that there are many different statutory and international definitions of what a tall building is and that the definition itself remains an indeterminate and inconclusive quantity. Historic England views tall buildings as a relative term and expects "local authorities to define what is tall, based on evidence of the local context⁷²". The Council on Tall Buildings and Urban Habitat (CTBUH) describes a tall building as a skyscraper less than 300m high and goes on to describe a 'supertall' building as anything that exceeds 300m in height and a 'megatall' building as one that exceeds 600m in height⁷³. (At present Britain only has one building, the 310m Shard, that fits into the latter two categories.)

The London Tall Buildings Survey, the respected annual round-up of the capital's high-rise construction pipeline, classifies tall buildings as anything above 20 storeys⁷⁴, approximately 60m. And the latest 2021 London Plan applies the term to any building that exceeds 18m or six storeys⁷⁵. Equally, much of the tall building data researched by this paper has analysed tall buildings over 111m high, the height of St. Paul's Cathedral.

This multiplicity of methodologies accommodates a great degree of discretion and confusion when defining tall buildings. In light of this, the TBP has decided upon a combination of the Historic England and London Tall Buildings Survey approaches to settle upon 60m as a reasonable high-rise threshold within the context of average building heights within Britain's urban landscape. We feel this height will also resonate more effectively with the public than the GLA's six-storey definition which would include buildings like Harrods department store and which this paper has no interest in regulating.

As the overwhelming majority of buildings in Britain are substantially below 60m, the TBP would leave the vast bulk of Britain's proposed and existing building stock unaffected. According to the latest London Tall Buildings Survey 2023, 72 buildings above 60m were submitted for planning in London in 2022, therefore providing a broad approximation of the annual number of tall buildings presently affected by TBP in London⁷⁶, a number that would be considerably lower outside the capital. Equally, as the vast majority of the 375 councils⁷⁷ in England and Wales would never have cause to consider applications for buildings this tall, most of them would have to do nothing to maintain the status quo. A diagrammatic view of the new planning arrangements relating to tall buildings is included overleaf in Fig. 2.1.

It is critical to note that the content of the TBP will be entirely at the discretion of the local authority. They must simply ensure that a series of six Requirements have been considered in the TBP's preparation.

The TBP requirement will not apply to non-storied tall building structures like, for instance, communication masts and cathedrals. But it will apply to any multi-storied building or any structure that includes habitable areas above the 60m threshold. In recent decades this would have included Portsmouth's Spinnaker Tower (170m) and the London Eye (135m) but it would not have included Crystal Place Aerial (219m) or Humber Bridge (155m).

Neither this paper not the TBP is an attack on tall buildings and as we have seen, both London and England both variously held titles for hosting the world's tallest buildings for hundreds of years. The TBP merely seeks to ensure that their integration with the far shorter buildings

- 72. https://historicengland.org.uk/images-books/publications/tall-buildings-advicenote-4/heag037-tall-buildings-v2/
- 73. https://www.ctbuh.org/resource/height
- 74. https://nla-production.s3.eu-west-2.amazonaws.com/44879/Preview-TALL-BUILD-INGS-PUBLICATION-2022.pdf?v=1650926740
- 75. https://www.london.gov.uk/sites/default/ files/the_london_plan_2021.pdf
- 76. https://nla-production.s3.eu-west-2.amazonaws.com/44879/Preview-TALL-BUILD-INGS-PUBLICATION-2022.pdf?v=1650926740
- 77. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.local.gov.uk/ sites/default/files/documents/local-government-structur-634.pdf

that constitute the vast bulk of our built fabric is more sensitively and productively managed.

FIG 2.1: PROPOSED TBP PLANNING PROCESS



RECOMMENDATION 3: As with local development plans, TBPs must be submitted to and approved by the planning inspector before they become statutorily enforceable. In order to gain this approval, a Tall Building Policy would be required to:

3a.) Explicitly demonstrate how the submitting authority has considered and met six Requirements that must form the core of the TBP...

It is important to note that it will not be the planning inspector's role to approve or reject TBP's on the basis of their content. Their role will be solely to ensure that each authority's TBP meets the six Requirements centred the themes set out below:

- Location
- Beauty & Design
- Heritage
- Views
- Public Consultation
- Alternative Viability

If, for instance, Norwich City Council decides that it wishes to prohibit tall buildings from the centre of the city and concentrate them elsewhere, it will not be the inspector's role to adjudicate on the acceptability of this decision. He or she must simply note that the 'Location' Requitement has been considered and therefore met and grant approval on this basis. This mechanism ensures that local authorities remain in full control of their own individual TBPs and they are not imposed by either the Planning Inspectorate or central government. These six Requirements form the core of the TBP. Summaries are provided below but a fuller explanation of each one is provided in the remaining chapters.

RECOMMENDATION 3: As with local development plans, TBPs must be submitted to and approved by the planning inspector before they become statutorily enforceable. In order to gain this approval, a Tall Building Policy would be required to:

3b.) Specify exactly where tall buildings should and should not be located.



The location of tall buildings has consistently proved to be one of the most contentious aspects of tall building design and countless public inquiries have been predicated on whether the proposed tall building is or isn't in the right place. The TBP will essentially seek to fill this vacuum by requiring local authorities to identify specific areas with their jurisdictions where tall buildings are and are not permitted. This will provide invaluable guidance and certainty to developers and ensure that the integration of tall buildings into the surrounding fabric is now handled with the utmost sensitivity. Crucially, it will also stop the time of developers, the local authority and stakeholders being wasted by tall buildings being proposed on inappropriate sites.

RECOMMENDATION 3: As with local development plans, TBPs must be submitted to and approved by the planning inspector before they become statutorily enforceable. In order to gain this approval, a Tall Building Policy would be required to:

3c.) Establish a new triple-tier protected views system similar to the grade listings system applied to historic buildings.



A new protection system similar to Historic England's existing grade listing system for historic buildings will be established to protect important local and strategic views. Three tiers of view protection will be introduced, Tier 1 Views (T1V) providing the highest level of protection and from which tall buildings above 60m will normally be prohibited from appearing, T2V where tall buildings will be permitted on a discretionary basis and T3V where tall buildings will be fully permitted.

RECOMMENDATION 3: As with local development plans, TBPs must be submitted to and approved by the planning inspector before they become statutorily enforceable. In order to gain this approval, a Tall Building Policy would be required to:

3d.) Mandate new public votes on tall building proposals and set the voting arrangements and majority required.



For the very first time, the public will be invited to vote on tall building proposals. This will become a mandatory element of the pre-application planning consultation process for buildings over 60m in height and while results will not in themselves either guarantee or deny planning permission, they will form a meaningful and material consideration during the planning application determination stage. In London, a vote in support of a tall building proposal must receive backing from both the local (borough) population as well as the city-wide Greater London population.

RECOMMENDATION 3: As with local development plans, TBPs must be submitted to and approved by the planning inspector before they become statutorily enforceable. In order to gain this approval, a Tall Building Policy would be required to:

3e.) Introduce new beauty and design guidelines.



Policy Exchange has long advocated for the reintroduction of beauty into the UK urban environment and its Building Beautiful programme has been hugely influential in forcing beauty onto the contemporary political lexicon. But for some, beauty remains a deeply contested term that can arouse volatile political and socio-economic reactions. Consequently, it is not the TBPs place to define what beauty is. But it will be its role to make clear that beauty is important. Consequently, by encouraging local authorities to consider key aesthetic elements of skyscraper design such as form, summit and street integration and by prompting them and designers to explore how tall buildings can be innovatively deployed as visual vessels for the reinterpretation of local historic vernaculars, the TBP hopes to instil the highest standards of architectural design into UK high-rises and perhaps even help develop that most elusive of building typologies: a British skyscraper.

RECOMMENDATION 4: Tall buildings should be banned from Conservation Areas & a new protective buffer zone to be installed around them. The only exceptions should be Conservation Areas in which a tall building was already present on the date of their designation.



The relationship between height and heritage has proved to be one of the most fraught and contentious areas of the tall buildings debate. On one hand there are those that insist that cities most evolve in order to meet their commercial and demographic needs and that tall buildings are therefore an integral and indispensable part of their historic development. On the other hand, tall buildings have been cited as inflicting significant harm on historic character and key heritage assets. In order to strike a balance between these two opposing concerns, the TBP will propose that tall buildings above 60m in height be banned from conservation areas in which no tall buildings were present on their date of designation. Equally, mindful of the disproportionate impact the height of tall buildings will also be prohibited from any site that shares a boundary with a Grade I-listed building and will be actively discouraged from a 100m buffer zone around conservation areas.

RECOMMENDATION 5: See Recommendation 3d.)

RECOMMENDATION 6: In London the statutory body charged with producing the TBP would be the Greater London Authority. Recognising the impact of tall buildings both on their local borough and city as a whole, tall buildings in London would be subject to a 'Local Lock', whereby majority support would be required both in the borough and in London as a whole, to demonstrate that a tall building had public support.

Under the proposals, the 32 boroughs and the City of London would lose the right to consider tall buildings proposals over 60m in height, although – as with councils outside London, their normal powers to determine applications for buildings below this height would be retained. The GLA would be expected to develop London's TBP in conjunction with the boroughs. In conclusion, if a tall building over 60m was proposed in Lambeth, the developer would no longer apply to Lambeth council for planning permission, they would apply directly to the GLA. Equally, if on a development of seven blocks in Waltham Forest one of the blocks is taller than 60m, the entire planning application will be considered by the GLA and not Waltham Forest.

There is very likely to be sustained and significant resistance from the London boroughs at the prospect of losing their legal right to consider tall buildings over 60m in height. It would mark a significant break from the established development control rights they have enjoyed and exercised since the London Government Act 1966 and in a city commonly colloquially depicted as being a 'collection of villages' they may likely view it as political assault on the municipal autonomy that reflects the shared local identities from which London is formed. These sentiments are likely to be most pronounced in the City of London which historically relishes its administrative independence in multiple areas and has been historically and commercially vociferous in pursuing its self-appointed role as London's foremost municipal advocate of tall buildings.

However, while London's boroughs obviously play an important role in London's geographical diversity and its cultural identity, within the area of tall buildings they represent a near-feudal fragmentation of opposing local policies that has caused systematic harm to the urban coherency of the city as a whole. Additionally, many developers have been left confounded when forced to work with a two-tier statutory compliance system that requires approval from both the borough and the GLA when the policies advocated by both are sometimes inconsistent. It simply is not possible to affect a strategic, unified and comprehensive London-wide tall buildings policy for the entire city if it is left to rival authorities whose primary interests, for obvious reasons, pertain solely to their local areas of concern rather than the capital as a whole.

That is the GLA's role and while there is also room for criticism of its own policy trajectories and efficacy in the two decades since its foundation, it remains the most obvious municipal tier to enforce a single strategic tall buildings plan for the whole capital for the very first time. It will also be able to ensure that developers only have one rather that two sets of statutory guidelines to comply with, creating a more streamlined and consistent policy infrastructure than is currently the case. The boroughs may well view this move as an erosion of their rights. But with rights come responsibilities, and theirs is to accept that they do not exist in isolation but are part of a greater municipal whole whose streamlined civic coordination is critical to establishing the shared strategic success from which their own fortunes inevitably flow.

RECOMMENDATION 7: To support mid-rise housing, permission-inprinciple should be automatically granted to alternative mid-rise housing schemes that meet certain criteria. Tall building developers should also be required to prove that proposed developments deliver greater density than alternative mid-rise housing.



The TBP will seek to foster a revolutionary new approach to increasing housing supply that is both economically affordable and contextually responsible. Many residential tall buildings are justified on the basis of the high densities they are said to achieve. While this can sometimes be said to be the case, countless academic studies have proven that tall buildings are not in fact that most reliable means to procure high density and midrise developments are. This is certainly borne out by the fact that after two decades of rapacious high-rise development in British cities, they still retain a fraction of the density of many of their European counterparts (see Fig. A15)

In recognition of this the TBP will impose both a requirement and an opportunity for developers. The requirement will be that in order to gain planning permission, developers of residential tall buildings must now prove that alternative mid-rise typologies will not offer greater density than their high-rise proposals. The opportunity will be for developers of mid-rise residential buildings that prioritise mansion blocks, streets and courtyards to benefit from permission-in-principle for their planning applications. Both options will be known as the Alternative Viability Route.

All polling results in the following chapters except those marked with an † are taken from the DeltaPoll survey conducted for Policy Exchange in December 2021. Those marked with an † are taken from the DeltaPoll survey conducted for Policy Exchange in February 2024.

2.1 Tall Buildings Policy Requirement 1: Location

Fig. 2.2 While London's New Zealand House (1963) is now a Grade II-listed building, many now accept that it is an incongruous addition to its overwhelmingly neo-classical surroundings & that tall buildings should not be built in sensitive historic locations



2.11 Public Support for The Requirement

70%

believe it is important for tall buildings to fit in with their surroundings.

40%

believe it is important to arrange tall buildings in clusters rather than locate them indiscriminately. 35% believe the opposite.

48%

do not believe that tall buildings should be permitted in suburban areas. 30% believe they should be allowed.

56%[†] believe it is inappropriate to line the River Thames with tall buildings, 29% believe it is appropriate.

2.12 The Requirement

The Tall Buildings Policy must endeavour to identify specific locations within the local authority area where tall buildings are and are not appropriate. Blanket designations must be avoided, for instance the TBP cannot simply indicate that tall building development is acceptable in the entire council jurisdiction. Instead, the TBP must carefully and forensically identify which areas it considers to be appropriate (and by extension, inappropriate) for tall building development and base this decision on a set of clear, observable criteria that can be objectively applied to any site within the local authority and can be used to actively demonstrate analytical consistency.

2.13 What the Requirement Will Demand

The Requirement will demand fair and strategic assessment of the totality of contextual factors normally considered when deciding the suitability of sites for high-rise developments. The TBP can then only determine tall buildings are appropriate for any given site when an equivocal balance between all these considerations has been achieved and optimised for local context and conditions. For instance, tall buildings are often sited near transport nodes and employment hubs to optimise usage and efficiency. High-rise plans may also be progressed on the basis of their exceptional design. However, neither of these factors can unilaterally justify the location of a tall building if this potential siting is deemed to inflict undue harm onto, for instance, nearby heritage assets. In this instance then the TBP would therefore consider this site or location in question to be inappropriate for tall building development. Clusters of tall buildings should also be seen as routinely preferable to their haphazard or indiscriminate location across the local authority area. The aim is to provide developers and stakeholders with a clear geographic guide of where tall buildings will and will not be permitted.

2.14 What the Requirement Will Avoid

Multiple planning inquires have been convened on the basis of the proposed tall building being deemed to be economically viable but in an inappropriate location due to its detrimental impact on nearby heritage assets or conservation areas. 20 Fenchurch Street and Heron Tower in London are just two examples. In all cases the inquiry found in favour of the developer but the process still comes at great time, expense and frustration from all sides. This requirement will end this wasteful and profligate process by simply providing clear statutory guidance as to where tall buildings can and can't be built, thereby avoiding the opportunistic confusion that can be gratuitously exploited by those with vested interests in either the proliferation or curtailment of skyscrapers.

Crucially this requirement, and the TBP generally, avoids the imposition of a height limit. While these are the preferred tall buildings policy mechanism in several cities (i.e. Paris and Washington D.C.) they tend to work best in cities with a zonal planning culture where prescribed limitations are commonplace. Imposing height limits in the UK's discretionary planning system, combined with high land values in places like London, is likely to lead to a proliferation of highly opportunistic tall building proposals which are all implicitly encouraged to maximise the allowable height.

Additionally, the Civil Aviation Authority already sets a maximum height of for all buildings of 309.6m in London. This is the exact height of the Shard which effectively represents the tallest building that will ever be permitted in the UK under current CAA legislation.

2.2 Tall Buildings Policy Requirement 2: Beauty & Design

Fig. 2.3 Once the tallest building in the world, the iconic Woolworth Building in New York City (1912) recalls a time when, prior to the proliferation of glass and steel high-rise boxes of today, skyscrapers brimmed with detail and decoration and dramatically evoked their inspirational debt to Gothic architecture



2.21 Public Support for The Requirement



2.22 The Requirement

The Tall Buildings Policy must endeavour to ensure that the very highest standards of design quality and architectural skill are applied to high-rise proposals. Tall buildings can be beautiful and it will be the express purpose of the TBP and the Requirement to ensure that when tall buildings are considered and consented by the planning authority that they are routinely meet the threshold of being exemplary works of architecture that positively enhance the urban environment.

2.23 What the Requirement Will Do

The Requirement will seek to ensure that tall building designs conspicuously embody the following architectural characteristics. While inclusion of these characteristics is not mandatory in order to meet the Requirement and while the Requirement also acknowledges that in specific instances a design that does not incorporate any of these features may still meet the threshold for exemplary architecture, inclusion of them will count favourably during the planning decision-making process:

• 2.22.1 Distinctive Tapering Form

The floorplate of the tall building should seek to reduce in area as the tall building rises in order to deliver a slenderer form that is less potentially intrusive on local sensitive assets.

• 2.22.2 Distinctive Tapering Crown

The summit of the tall building should seek to recede into the sky by means of fragmentation, transparency or tapering.

• 2.22.3 Vertical Articulation

Elevationally the tall building should exhibit a discernible top, middle and bottom with the bottom fully engaged with the rhythm and proportion of adjacent streetscape.

2.22.4 Local Forms

Commendation will be given to tall building forms that seek to mimic, reference or reinterpret architectural forms that are common to local or historic vernacular.

• 2.22.5 Local Materials

Commendation will be given to tall buildings that seek to use materials forms that are common to local or historic vernacular, especially when traditional materials are deployed.

The Shard , London RENZO PIANO ARCHITECTS (2012)	Blackfriars Circus , London MACCREANOR LAVINGTON (2020)	Keybridge Lofts , London ALLIES & MORRISON (2022)	
Despite being Western Europe's tallest building, the Shard's tapering form references London's historic identity and evocatively recalls the spires and sails that once adorned the London skyline. Equally, its fragmented summit lends an otherwise colossal building a fragility and permeability that helps soften its impact on its historic context.	The 27-storey residential tower that forms the centrepiece of the Blackfri- ars Circus development is a valiant at- tempt to develop an English skyscraper typology. With its extensive use of brickwork and its seamless integration into streetscape at its base, it attempts to forge a new kind of skyscraper that's heavily informed by its local London vernacular.	Keybridge extends the Blackfriars Circus 'English Skyscraper' theme by again using brickwork and also, on its lower surrounding blocks, visually adopting the warehouse typology that is port of local industrial heritage. Tellingly neither contextual concession undermines its technological prowess, at 128m high it is the tallest brick building in the UK.	

Indicative examples of tall buildings that meet some of the characteristics above are included below:

2.24 What the Requirement Will Avoid

The Requirement will not seek to dictate design nor will it seek to standardise or nationalise beauty. The TBP fully accepts that in many ways beauty is a subjective and instinctive reaction and it will not seek to impose an architectural straitjacket designed to procure a specific stylistic visual response. However, the TBP, in line with Building Beautiful methodology also accepts that there are objective, observable standards that consistently reoccur when appraising architectural beauty that relate to considerations such as materials, proportions and contextual integration. By striking a balance between these universal commonalities and the intuitive individualism of original design intent, the Requirement seeks to ensure that many of the 'eyesores' associated with high-rise architecture in the past is avoided in the future. Fig. 2.4 20 Fenchurch Street won the Carbuncle Cup – the former annual prize for the worst building in Britain – in 2015 and is generally heralded as a totemic example of poor tall building design and contextual integration with its surrounding historic fabric



2.3 Tall Buildings Policy Requirement3: Heritage

Fig. 2.5 Despite most of the City of London - London's oldest district - being covered by conservation areas from which high-rises are supposedly banned, an increasing number of glass skyscrapers still tower above the City's built historic fabric



2.31 Public Support for The Requirement

71%

believe tall buildings should not be allowed to interfere with historic views.

65%

believe tall buildings should not be permitted in historic areas.

48%

believe historic buildings and areas are not given adequate protection from high-rise development. 29% believe they are.

17%†

claim that harm to built heritage would most persuade them to oppose tall buildings, more than appearance (15%), lack of affordable homes/local suitability (14%) & harm to views (11%) & character (10%).

2.32 The Requirement

The Tall Buildings Policy must endeavour to provide the highest level of protection possible for historic assets and ensure that these assets suffer <u>no</u> harm from the realisation of high-rise developments. Historic assets are commonly described as those identified below but the list is by no means conclusive:

- a. Listed Buildings
- b. Locally Listed Buildings
- c. Conservation Areas
- d. National monuments
- e. Scheduled Ancient Monuments
- f. UNESCO World Heritage Sites
- g. The Royal Parks (London)

The aim is to achieve a more workable balance between local expansion and development needs, and the civic responsibility to ensure that this development does not inflict undue harm onto valued heritage assets. The Requirement seeks to ensure that welcome economic growth does not jeopardise established historic character.

2.33 What the Requirement Will Do

The Requirement instructs the TBP to introduce the following measures to ensure that the commitment expressed above has been met:

• 2.33.1 Buildings Over 60m in Height Banned from Conservation Areas

The only exceptions to this rule will be conservation areas that included tall buildings above 60m on the date of their designation. For instance, as the Barbican Conservation Area in the City of London was designated on 21st November, 1967 and construction of the Barbican Estate (which includes three 125m towers) began in 1965, the new prohibition will not apply to the Barbican Conservation Area.

• 2.33.2 Introduction of 100m Buffer Zone around Conservation Areas

While buildings over 60m will not be banned from the buffer zone around Conservation Areas, they will be actively discouraged and will only be permitted in **exceptional** circumstances and where **all** other Requirements in the TBP have been conclusively met.

• 2.33.3 The Leadenhall Rule

Buildings Over 60m in height will no longer permitted to share a boundary with a listed building with whom they bear a clearly discernible stylistic difference. This rule seeks to maintain the visual historic integrity of listed buildings by specifically preventing incongruous incursions to their settings such as is now evident around Grade II*-listed Leadenhall Market in the City of London. However, a tall building that shares visual or stylistic similarities with the listed building, such as a brutalist tower proposal beside the National Theatre, would not be prohibited under this Requirement of the TBP.

• 2.33.4 The Precedent Rule

The existence of a tall building can no longer be used to justify its redevelopment or replacement with a tall building of a similar or greater height on the same site. The obverse of this has long been a common feature of urban regeneration and countless tall buildings have gained legitimacy in planning terms by virtue of the fact that that tall (normally shorter) buildings previously existed on the same site. However, the existence of a historic planning mistake should not justify the committal of a new one. So, the Precedent Rule would require fresh examination of the totality of merit (or otherwise) of the tall building project and the exclusion of the existing tall building from that examination process.

• 2.33.5 Justification Elimination

None of the rules identified above can be used in support of a tall building proposal. For instance, the clustering of tall buildings along the edge of the Conservation Area Buffer Zone to deliver superficial compliance with the restrictions described in Rule 2.33.1 and 2.33.2 would be seen as a material contravention of both its spirit and purpose and would not be permitted.

2.34 What the Requirement Will Avoid

Fig. 2.6 The Leadenhall Rule will maintain the historic integrity of listed buildings by ensuring that tall buildings cannot be placed directly beside them



The Requirement will not seek to eliminate contrast. Contrast between old and new can be an exhilarating facet of the built environment and in a country like Britain which has largely rejected the hyper-protected Old Town conservation model frequently deployed in historic European urban centres, contrast forms a distinctive ingredient of the visual experience of historic precincts, particularly in the City of London. However, the Requirements will seek to mitigate against the chaos that uncontrolled contrast can sometimes engender. In providing necessary protections to the visual integrity of key heritage assets, the Requirement will ensure that the historic character and integrity of our cities, a vital reputational asset in how British urbanism (especially in London) is internationally perceived, is not carelessly squandered for the more temporal priorities of periodic commercial or residential redevelopment. Chiefly, the Requirement seeks to achieve a quantity vital to the harmonious interplay between height and heritage - balance. Fig. 2.7 & 2.8 The Precedent Rule will ensure that the presence of towers in sensitive historic areas in which they should probably not have been originally built will no longer be sufficient to justify their replacement with a new, usually much taller tower, as is the case with the current controversy over redevelopment proposals for Selkirk House (1968) in Bloomsbury, central London



Fig. 2.9 The proposed Liverpool Waters development was cited by UNESCO as one of the reasons the city was dramatically stripped of its covered World Heritage Site status in 2021



We also maintain that the presence of this Requirement within the TBP would have prevented the removal of Liverpool's UNSECO World Heritage Site status in 2021, an act directly triggered by the alleged harm UNESCO felt was being inflicted on Liverpool's historic character and one which came at great embarrassment to the British government's international reputation for heritage conservation. Had this TBP Requirement been in place, there is every possibility Liverpool's World Heritage Site status would have been retained.
Fig. 2.10 Although the Westminster received its conservation area designation and its UNESCO World Heritage Site listing after Millbank Tower (second skyscraper from left) was built, it offers a worrying example of how the views and character of historic conservation areas can be negatively affected by highrise sprawl well beyond their boundaries



2.4 Tall Buildings Policy Requirement 4:Views

Fig. 2.11 The famous view of the Queen's House, Greenwich Palace, the first classical building ever built in Britain, is now overshadowed by skyscrapers in a development some decry as reckless and others praise as progress



2.41 Public Support for The Requirement

41%

believe tall buildings have made London's skyline worse. 25% believe it has been improved.

43%

believe tall buildings have rendered the view from Waterloo Bridge less beautiful than it was 20 years ago. 23% claim it has been improved.

2.42 The Requirement

The Tall Buildings Policy must establish a three-tier system for protected local and strategic views. The tier system will work in a similar way to the grading system for historic buildings. Tier 1, the highest form of protection, will be views that tall buildings over 60m are not permitted to intrude upon. Tier 2 will be views where the addition of tall buildings is decided on a discretionary basis. And Tier 3, which provides the least protection, will be views where tall buildings will be permitted to intrude upon. Tier 2 designation will be the default protection applied to all areas within the local authority. The TBP must then identify those specific views it wishes to designate as Tier 1 and Tier 3. As with the Location (Requirement 2.2) this process is designed to actively encourage local authorities to rigorously assess the fabric of their local townscapes and identify which cherished views or cityscapes merit stronger protections than others. As with all Requirements, this tiered designation will be statutorily enforceable.

As explained below in Section 2.43, certain Tier 1 designations will be mandatory. Also, the tier system is not designed to replace existing protections applied to local and strategic views and local authorities will be encouraged to maintain due diligence with regard to townscape and skyline management. (For instance, in London the existing London View Management Framework will be retained.) Rather, the new tier system is designed to work in conjunction with existing municipal protections that may already be in place.

2.43 What the Requirement Will Do

The Requirement will demand the imposition of a triple tier views protection system across the local authority which will determine which views tall buildings above 60m are allowed to intrude upon. The tiers, as well as new supplementary view management tools, are itemised below:

2.43.1 Tier 1 Protected View

New buildings above 60m in height will be prohibited from all identified views given Tier 1 designation. While local authorities will be at liberty to confer this status to views of their choosing, Tier 1 designation **must** also automatically be given to identified views of all the following heritage assets:

- (a): Grade I Listed Buildings
- (b): National monuments

- (c): Scheduled Ancient Monuments
- (d): UNESCO World Heritage Site

In **rare and exceptional** circumstances tall building proposals that intrude on Tier 1 views may be **considered** but only when **all** other TBP Requirements have been demonstrably met and the developer proves conclusively that public benefit outweighs visual harm.

Fig. 2.12 Had the proposed tiered view protection system been in place when Portland House (immediate left of Buckingham Palace) was proposed in the early 1960s, then in it is highly likely its proximity to the Grade I-listed palace would have prevented it gaining planning permission and subsequently despoiling views and the parkland aspect of one of Britain's most popular and internationally-renowned tourist locations



2.43.2 Tier 2 Protected View

Tier 2 protection will be automatically conferred on identified views across the local authority until such time as the Tier 1 and Tier 3 protected views are selected. Here the Requirement will be similar but not as stringent as the Rare & Exceptional Circumstances clause in Tier 1 protection. However, tall buildings above 60m that intrude upon these views will be considered on a discretionary basis as long as other TBP Requirements have been met. Examples in London of Tier 2 designated views might be as follows.

- (a): View East from Waterloo Bridge
- (b): Views from the Royal Parks

• 2.43.3 Tier 3 Protected View

Tier 3 status is the lowest level of view protection where tall buildings can be considered in line with general arrangements that currently exist. Tall building proposals above 60m will generally be permitted to intrude upon these views but again, compliance with other TBP Requirements will be expected. Tier 3 designation may commonly be applied to scenarios such as enterprise zones, opportunity areas or regeneration sites.

• 2.43.4 Skyline Management Plan

As well as the tiered protection systems, local authorities should be encouraged to establish a Skyline Management Plan. This will assess the visual composition of the city skyline as a whole, often a crucial means by which a city presents its urban image to the outside world. It will also contain aspirations as to how the local authority wants the skyline to appear and what measures they plan to implement to achieve this. The TBP understands that cities are dynamic entities and that views change and evolve organically in line with economic, demographic and cultural shifts. However, the Skyline Management Plan will mark an attempt to balance this with an aspirational programme of carefully sculpted visual curation that ensures that tall buildings, where they do appear, are fully integrated within a coherent aesthetic narrative for the cityscape's overall appearance.

Fig. 2.13 While Newcastle's Westgate House did not meet the 60m threshold for a tall building to be consideredby the Tall Building's Policy, had it not been demolished in 2007 it would have been an ideal candidate for the redemptive efforts of the proposed Townscape Management Plan Requirement had it not been demolished in 2007



• 2.53.5 Townscape Management Plan

Cities are full of architectural mistakes and the planning system should make all reasonable attempts to remedy them. While the term "eyesore" is deeply pejorative, almost every city in Britain contains functionally and often visually redundant buildings which both residents and councils might rather were not there and have been assessed as causing harm to local urban or socio-economic fabric. Local authorities would be encouraged to keep a record of these in the form of a Townscape Management Plan and monitor building lease expiries and renewals in order to identify junctures where it may be appropriate to propose building demolition or refurbishment.

While the TBP notes that current sustainability priorities seek to dissuade demolition due to its loss of embodied carbon and the TBP also shares the generally held belief that the retrofit of buildings is environmentally preferable, it also believes that cities and their citizens should not be forced to live indefinitely with planning or architectural mistakes. Where a broad consensus exists that such a mistake has been made and demolition is settled upon as the preferred remedy, the existence of a Townscape Management Plan that had drawn a similar long-standing conclusion may add statutory weight to this decision.

2.44 What the Requirement Will Avoid

Views are the symptom of the urban condition rather than the cause and the TBP will not seek to use them as the unilateral arbiter of tall building acceptability when it acknowledges within its own Requirements the host of other relevant factors that must be taken into consideration. But views are critical snapshots of the totality of the urban condition and are essential in helping us piece together the visual identity of a city. This Requirement will provide a new simplified and streamlined protection system that will not stifle development but will ensure that the changes it may impose upon the most cherished views that comprise this visual identity will be subject to far more rigorous scrutiny than is currently the case. Accordingly, the vital fragments of urban character that views represent will no longer be unwittingly squandered by piecemeal statutory protection frameworks that are incapable of fully recognising, anticipating or accommodating the impact of proposed tall buildings until, as have often proved to be the case, it is too late.

Fig. 2.14 St. Paul's Cathedral's once solitary focal domination of the famous processional view up Fleet Street has been thoroughly and thoughtlessly compromised by the incongruous intrusion of towers



2.5 Tall Buildings Policy Requirement 5: Public Consultation



2.51 Public Support for The Requirement

64%

believe they have been not been allowed an adequate say in whether tall buildings should be permitted.

64%

believe they should have a significant say in whether tall buildings are permitted.

71%†

believe there should be a formal public vote to help decide whether tall buildings should receive planning permission or not.

2.52 The Requirement

The Tall Buildings Policy requires that all tall building proposals above 60m will now require a public vote. Various legally required statutory public consultation commitments already exist as part of the statutory planning process. These are principally defined in legislation such as the Localism Act 2011 and, for infrastructure projects, the Planning Act 2008. However, the new requirement for a poll as a mandatory part of the statutory consultation process and prior to the submission of the planning application will ensure that for the first time, all the general public will have an active say in whether they think proposals should or should not proceed. While the result of the poll cannot statutorily determine whether planning permission should be granted or refused, the result can be used as a strong indicator of the balance of public opinion. It will also form a powerful material consideration during the planning determination process and can weigh either greatly in favour or against the popular legitimacy and democratic mandate of any tall building proposal.

2.53 What the Requirement Will Do

The Requirement will instruct local authorities to work with developers to organise a wide-reaching public poll to assess the level of popular support for tall building proposals. The poll must take place prior to the submission of the planning application but, in line with current public consultation requirements, at a time when plans have progressed to a developed stage sufficient to allow meaningful assessment by the public. In process it will mirror the statutory consultation period that takes place after planning applications have been submitted where the council is legally required to publicise the proposals by giving notice in various formats such as local newspapers and hand bills.

For buildings between 60m and 100m the poll must solicit respondents from the local surrounding area. In London this would refer to the borough in which the proposed tall building is situated, or in Manchester it may pertain only to residents in wards like Deansgate or Piccadilly. For buildings above 100m the entire municipal jurisdiction must be polled. Again, in London this would relate to residents in all 33 boroughs and in Manchester it would relate to the entire city.

Also, London's disproportionately large size in comparison to all other UK local authorities will require an additional feature to be added to polling in the capital, a Local Lock. On buildings that are over 100m high, the results can only indicate support for a scheme if that support is evident locally as well as amongst London-wide residents. And vice versa. For instance, if the London-wide poll expresses support for the proposed development but that support is not reflected amongst local residents in the borough in which the tall building is located, then that result would be deemed overall to show that the tower does not have public support.

This is to ensure that local opinion remains at the core of public voting and that the borough residents (who will be most directly affected by the scheme) are able to wield additional influence over its fate. The aim is to ensure that the polling fairly responds to London's disproportionate size and also reflects London's geographical diversity by striking a weighted balance between local and strategic interests.

While the costs of organising the poll should be born by the developer, the local authority will place all its communication infrastructure at the developer's disposal for the poll to be conducted. This could include voting being permitted on the council's website or referred to in council newsletters. A dedicated online voting site could also be established, with all the necessary measures in place to confirm voter identity and eligibility, prevent voter fraud and manipulation, such as multiple votes from the same respondent and ensure that online voting is only accessible once the respondent has reviewed key details and images of the development.

In order to ensure as far-reaching a range of responses as possible, the poll must be widely advertised across a broad array of media channels and voting should be made as quick and as easy as possible and accessible in both online and physical form. The latter could take place at public consultation events while the former could be permitted over a set period of time. Developers will be encouraged to appoint specialist polling companies to expedite the poll on their behalf and ensure fair and impartial assessment of the results. The question should also be as simple as possible and could be pitched as plainly as a 'Yes' or 'No' answer to 'Do You Support The Proposals'?

While a simple majority of 50% would be the simplest way to assess popularity, local authorities would be free to require other thresholds to determine support if they wish, such as, for instance, super-majorities of 60% or 66%. The winning threshold however must be fixed within the TBP and cannot be altered on a case-by-case basis when assessing proposals.

Should one poll produce a disappointing result, the developer is free to organise as many subsequent ones as he wishes should the plans have been amended in line with public responses. The final poll result will be then submitted with the full planning application.

Finally, the principle of voting also chimes with the democratic enfranchisement sought by Policy Exchange's Building Beautiful programme and evident in Policy Exchange's Street Votes proposal⁷⁸. It is also endorsed by multiple government commitments to give the public more of a say when it comes to local developments⁷⁹.

2.54 What the Requirement Will Avoid

It is not the Requirement's intention to turn the planning process into a beauty pageant or popularity contest. The hundreds of enraged Parisians who, with an appalled French intellectual elite, protested vehemently against the construction of the Eiffel Tower in the late 19th century are a salutary, totemic reminder of the perils of taking public opinion on architecture as incontrovertible fact.

However, as our own polling results prove, there is no doubt that

^{78.} Policy Exchange; Building More Building Beautiful, 2018

^{79.} https://www.thetimes.co.uk/article/people-power-residents-given-direct-say-in-local-government-n39cqzrsb

many members of the public have felt excluded and disenfranchised from the process of determining whether tall buildings should or should not be permitted in their cities and communities, an egregious negation made worse by the disproportionately large impact tall buildings have on the urban environment. This has led to feelings of frustration and even worse, apathy, amongst the public as people conclude that their voices will not be heard in crucial debates about how their cities and skylines will be shaped and therefore stop bothering to articulate it at all.

This marks a profound democratic deficit that the public vote TBP requirement will seek to address. Yes, the planning system gains its democratic prerogative from the fact that the mayors and councillors who ultimately determine it are elected. But when it comes to individual buildings, this still places the public at an arm's length, quasi-judicial distance from the decision-making process. By inviting the public to vote in that process for the first time, a key form of direct democracy is utilised to end feelings of alienation and powerlessness within that process and ensure a more dynamic, civic exchange between the public and the municipal administration that serves it.

2.6 Tall Buildings Policy Requirement6: Alternative Viability (Housing)

Fig. 2.15 At nine storeys high, Albert Court mansion block beside London's Royal Albert Hall is a perfect example of a high-density residential alternative to tall buildings



2.71 Public Support for The Requirement

11% believe tall buildings have significantly improved housing availability in the UK. 43% believe they have either marginally or not improved it.

24%†

believe that affordable housing would most encourage them to support tall buildings, more than local suitability (17%) appearance (12%), jobs (10%), public space (8%), height (4%) & public transport (3%).

2.72.1 The Requirement (A)

The Tall Buildings Policy requires that for all residential tall building planning applications (above 60m) the developer must demonstrably explore mid-rise alternatives and prove that alternative midrise typologies do not deliver higher densities than the high-rise proposal. In the midst of a national housing crisis, this will ensure that the optimisation of housing units in urban areas remains an uppermost concern of the planning system. It will also force the developer to consider alternative mid-rise typologies which, as well as delivering similar or even higher densities, may enable the development to be more aesthetically and urbanistically sympathetic to established traditional urban townscape vernaculars. Ultimately, the developer may even be encouraged to abandon a tall building proposal for a mid-rise one.

2.72.2 The Requirement (B)

For developers of residential building proposals lower than the 60m threshold above which the Tall Buildings Policy is activated, adoption of one or more of the alternative mid-rise typologies identified in the TBP (Section 2.73) may benefit from permission in principle status. This will enable the TBP to have a meaningful statutory impact beyond the realm of tall buildings and would allow developers of high-density mid-rise residential developments to benefit from preferential treatment that would provide greater speed and certainty throughout the planning process and therefore minimise risk. All while promoting alternative forms of residential development that not only potentially deliver higher densities than tall buildings but are more reflective of the UK's traditional townscape fabric.

2.73 What the Requirement Will Do

The Requirement will present four alternative residential typologies for developers of tall buildings to consider (as per Requirement A) and for developers of non-tall buildings to consider (as per Requirement B). The four mandatory typologies are itemised below.

- Mansion Blocks
- Courtyard Blocks
- Mid-Rise Blocks
- Street—based Masterplans

The list is by no means exhaustive, conclusive or definitive and while all TBP Alternative Viability (AV) Requirements must contain them at their core, local authorities will be encouraged to expand this list with other typological residential examples that may be present within their statutory jurisdiction. One such example which represents an albeit lowdensity model could be almshouses. The four alternative housing types are explored in detail in the following chapter.

2.74 What the Requirement Will Avoid

The Requirement will seek to avoid the popular misinterpretation that tall buildings necessarily provide the greatest density. This misconception has been the ideological juggernaut by which tall buildings have been justified and the public has been lectured relentlessly that they are critical to solving the housing crisis. The Requirement will present an alternative argument by actively encouraging developers to consider other residential typologies that may not only deliver greater densities but will do so in a manner that is more sympathetic to the traditional characteristics inherent in the overwhelming majority of Britain's townscapes.

The Requirement will also reward those developers that deploy these typologies in their development by filtering the principle of discretionary approval that underpins the UK planning system to allow permission in permission that will speed up the planning process and minimise developer risk. In do so doing, this will avoid developers discarding by default other residential typologies in favour of tall buildings and encourage them to consider how they may accrue greater private value and bestow enhanced public benefit by exploring alternative housing solutions.

2.7 Back to the Future: Mid-Rise

Fig. 2.16 If the Georgians could build up to seven storeys for inner-city residential architecture 300 years ago then so can we



The TBP Alternative Viability (AV) Route presents a unique national opportunity to densify our urban environment in a more subtle and sensitive way than that allowed by tall buildings. Tall buildings have many virtues but they are intrinsically abrasive enterprises, their height affording them greater visibility within the urban landscape, visibility which can potentially attract additional scrutiny, resentment and dispute. Their vertically also makes then inherently isolated structures, pulling away from the street and diminishing the dominant horizontality of the streetscape. In short, tall buildings are about shaft, low and mid-rise buildings are about street.

And their seamless integration with streets makes mid-rise far more

responsive to context and character. It is far easier to stich a seven-storey building into local townscape than a thirty storey one. Equally, while bigger than low-rise, mid-rise is still capable of maintaining the human scale and intimacy that makes for accessible streetscapes and vibrant neighbourhoods.

It is for all these reasons that the AV route will try and encourage as much mid-rise residential development as possible in order to promote a form of urban densification that remains rooted in humanism, streetscape and public realm. While mid-rise is lower than high-rise, the paper acknowledges that there is still some sensitivity in certain suburban areas of even reaching four storeys. In these instances, committed public engagement should be undertaken to reassure residents that high quality design will remain a priority, to make them aware of positive similar precedents in coveted and popular urban districts (i.e Covent Garden, Marylebone) and to identify for them mid-rise's broader role in preventing the proliferation of even more socially and physically disruptive high-rise schemes.

The four housing typologies the AVR will recommend are featured below.

2.71 Mansion Blocks

Fig. 2.17 A new residential development by Sebastian Treese Architects in Stuttgart, Germany demonstrates that as well as potentially delivering high housing densities, the traditional London mansion block also enjoys international appeal



Mansion blocks are terrific density deliverers and make an active contribution to Kensington & Chelsea's status as London's most dense boroughs despite being one of the boroughs with the fewest skyscrapers. Popular in the late 19th and early 20th centuries, mansion blocks contributed greatly to the densification of neighbourhoods like Chelsea, Victoria and Maida Vale and were also deployed on low-cost social housing like the early Peabody Estates. Falling out of favour for much of the 20th century when high- and low-rise blocks of flats became the municipal norm for large-scale housing assembly, they have endured something of a recent revival both in the UK and abroad as their benefits become rediscovered.

These include high-densities, the use of traditional materials (usually brickwork), the ease with which they work with the streetscape context and, unlike blocks of flats, the opportunity to personalise the development by having multiple street entrances (mimicking the intimacy of terraced housing) rather than the single core entrance usually present on blocks of flats. They are also significantly cheaper to build than skyscrapers and consume far less comparative space and energy for services. All of which increases the capacity for mansion blocks to provide affordable housing.

One of the most recent London examples of the new generation of mansion blocks are Abell & Cleland Houses by architects DSDHA (2018). Located close to the Houses of Parliament, the 13-storey blocks form a modern reinterpretation of traditional mansion block aesthetics and deliver a superb density of 319 dwellings per hectare. This is 2.1 times more dense than Erno Goldfinger's infamous 31-storey Trellick Tower in North Kensington⁸⁰. In order for the tower to deliver the same density as Abel & Cleland, it would need to be 66 storeys high, over twice its existing height.

This report is aware that a meaningful revival of the mansion block typolgy may be obstructed by certain building regulations relating to issues such as level access (now required for all housing) and miniumum habitable daylighting levels. This paper recommends that these restrictions are urgently reviewed with a mind to achieving a more equitable and pragmatic balance between modern standards and traditonal building forms.

^{80.} https://architecturetoday.co.uk/abell-andcleland/

Fig. 2.18 & 2.19 Despite being almost three times shorter than Erno Goldfinger's infamous Trellick Tower in London's North Kensington, modern Westminster mansion blocks Abel & Cleland Houses are 2.1 times as dense



Fig. 2.20 The Camden Courtyards development in North London offers a masterclass in high-density housing



2.72 Courtyard Blocks

Like mansion blocks, residential blocks built around courtyards can also be very effective mid-rise methods of achieving higher densities than those commonly accrued with high-rises. Traditionally courtyard blocks were more popular on the continent than they were here, possibly due the narrower UK plots widths, less sunlight being able to permeate the inner courtyards and the more piecemeal, incremental phases of historic development that generally took place in British cities. But in multiplying the number of facades and windows attached to a development and increasing the number of dual or triple aspect residential units available (a rare occurrence in tall buildings other than in penthouses) courtyard blocks provide superlative conditions for high-density housing. This is evidenced in the role they play in delivering much larger densities for continental cities like Paris and Barcelona than for their British counterparts.

At just seven storeys, Camden Courtyards in north London by Sheppard Robson Architects (2018) provides an astonishing density of 410 dwellings per hectare. And, like mansion blocks, it also shows how courtyard blocks can utilise traditional forms and materials to more successfully harmonise with existing streetscapes. Finally, with an impressive affordable housing provision ratio of 50%, Camden Courtyards demonstrates how courtyard blocks are no barrier to affordable housing⁸¹.

Fig. 2.21 Mid-rise blocks of flats like those at estate regeneration schemes like Kidbrooke Village in south-east London show how mid-rise blocks of flats provide opportunities to maintain street form, human scale and decorative interest while also delivering high density



2.73 Mid-Rise Blocks

Across the densest historic urban centres of Europe, such as Paris, Athens and Barcelona, the mid-rise block of flats emerges as the pre-eminent means to deliver high-residential density. (See Fig. 2.22). However, for the various historic and cultural reasons explained in chapters 1.2 and 1.3 of this paper, flats have historically played a smaller role than houses in the development of British cities, often robbing them of the opportunities to match urban residential densities achieved elsewhere. However, a renewed focus on mid-rise development as prompted by the proposed Tall Buildings Policy presents a new opportunity to subtly integrate a new generation of this building type into our cities as a potentially more contextually convivial alternative to tall buildings.

81. https://hdawards.org/scheme/camden-courtyards/ The role of the mid-rise block in maximising urban density is one that

received intense academic analysis throughout the twentieth century. Midrise blocks are normally considered to be approximately four to twelve storeys and, according to multiple studies, it is they rather than highrise buildings that provide the best urban means to optimise density. In their seminal 1972 study on land use, Urban Space & Structures, architects Leslie Martin and Lionel March compared the density (Floor Space Index) of mid-rise streets to free-standing high-rise blocks ("pavilions") and observed the following:

Fig. 2.22 At seven storeys high, Antonio Gaudi's iconic Casa Mila in Barcelona (1912) is a surrealist example of the typi-cal city centre block of flats primarily responsible for the high residential densities of many of Europe's historic cities



Fig. 2.23 One Cartwright Gardens by Maccreanor Lavington Architects (2017) in London's Bloomsbury provides student housing but is a superlative example of a contemporary inner-city mid-rise block that merges seamlessly with its sur-



"For streets... FSI reaches a maximum beyond which the density does not rise further despite the increase in the number of storeys. In the case of pavilions, FSI reaches a maximum then **declines** as more storeys are added."⁸²

In other words, contrary to popular misconception, density actually reduces in tall buildings over a certain point because of the increasing spatial demands and limitations the high-rise typology generates as buildings get taller (i.e. bigger cores, more services infrastructure, larger gaps required between buildings). However, while mid-rise blocks will also eventually reach a height after which no additional density will be added, crucially it will not *decline* and at the height where optimum density is achieved, it will always be higher in a mid-rise block than at the same height in a high-rise one. And March and Martin calculated that optimum height to be seven storeys, right in the middle of the mid-rise classification.

Of course other academic studies exist but Martin and March's had a profound impact on urban science and robustly supports the theory, proven by the examples in Requirement 2.71, that mid-rise blocks provide the optimum means to generate high densities and therefore deliver the housing units we need to solve the housing crisis. In 2002, the parliamentary Urban Affairs committee was just one of dozens of eminent bodies to echo Martin and March's concluding after a three-month tall buildings inquiry that tall buildings "do not necessarily achieve higher densities than mid- or low-rise development and in some cases are a less efficient use of space than alternative buildings."⁸³ Additionally as, like mansion and courtyard blocks, they are significantly cheaper to build than high-rises, the potential for them to provide affordable housing is

Martin, Leslie; March, Lionel (1972): "Urban Space & Structures", (Cambridge: Cambridge University Press), p. 37

The Transport, Local Government and the Regions Committee; Tall Buildings; 16th Report, July 2002

exponentially increased.

Finally, they can achieve all of this using traditional forms and materials and at a human scale that maintains intimacy while delivering mass housing. Achieving this balance is critical for any urban condition that wishes to remain relatable, functional and affordable. Therefore, this Requirement of the Tall Buildings Policy would actively support the greater deployment of mid-rise housing within our inner-city and suburban areas which could in turn have a transformational impact on UK housing supply and reduce the need for tall buildings.

Fig. 2.24 Edgewood Mews in north London by Peter Barber Architects brilliantly demonstrates how enigmatic, virtuoso architectural design can help ensure that mid-rise captures the dynamism and exhilaration often associated with high-rise while still maintaining the intimacy, materials and character commonly associated with traditional streetscapes



2.74 Street-Pattern Masterplans

Fig. 2.25 & 2.26 Two opposing designs for the redevelopment of the Royal Mail former sorting office site at London's Mount Pleasant show street-based design (top, proposal by Create Streets and Francis Terry) and non-street based design (bottom, winning proposal by various architects)



Streets are super-efficient horizontal skyscrapers that are thousands of years old. For centuries they have formed the principal physical arteries around which urban life unfolds and their use should be encouraged in new developments for a number of reasons. They allow new developments to be better integrated into existing street networks, they frame views and focal points, they facilitate wayfinding, legibility and connectivity, they provide a sense of intimacy and enclosure, they reinforce human scale, they provide clear edge boundaries, they denote a clear spatial hierarchy between circulation routes and urban squares, they can intensify animation and activity, they can be instinctively domestic in nature and they provide a dynamic threshold between public and private realm. That is not to say that none of these objectives can be achieved in other spatial models, but streets provide the simplest and most efficient means of delivering them.

While good design can integrate tall buildings into adjacent streetscapes, tall buildings are naturally spatially solitary in nature and can often destabilise rather than reinforce street character. The Requirement will seek to ensure that whether the high or mid-rise typology is being proposed, the legitimacy of the street as our primary urban conduit will always be maintained.

Conclusion

One of the underlying cultural shifts that the last quarter of a century of skyscraper proliferation has wrought on our cities is that we now have a generation of British children and young people for whom tall buildings are now the urban norm. Those of us born before the Millennium may still remember a time when the British urban experience didn't routinely involve towers peppering our horizons, high-rise floorplates crawling hungrily across our skies and streetscapes or, as pedestrians miles away from the nearest skyscraper, seeing distant shafts creeping slowly into our peripheral vision, filling old, familiar perspectives and doggedly elbowing themselves into our communal subconsciousness. But for many of our young now growing up in cities like London, Manchester and Leeds this will be the only everyday urban experience they have ever known.

Of course tall buildings have formed a significant part of Britain's urban lexicon since the 1960s and in some cases, they did indeed produce the exhilaration and thrill of the "white heat of technology" that Harold Wilson famously promised would be the exciting inheritance of modernity. To a generation tired of conflict and inequality, the dawn of a new, egalitarian age of futuristic enlightenment that would shrug off the stuffy, soot-stained masonry tenements of the past was, in many ways irresistible. And in some cases this was indeed its immediate legacy. Liberated from their Victoria-era slums and workhouses, many early council tenants initially adored their new high-rise flats and the BT Post Office Tower - soon to be redeveloped into a luxury hotel trading on its retro 60s chic – was once topped by a famous revolving restaurant that was once so popular it would easily serve 1,300 dinners a week⁸⁴!

But there was a key difference between then and now. The 1960s towers were largely concentrated in city centres as offices and on council estates as social housing, today they have a far bigger impact as they straddle multiple building types and have seeped into the suburbs and outer urban districts from which they were once largely concealed. And now as this paper statistically confirms, they almost *never* provide social housing. And herein lies the tragedy for the young. Not that they will be overfamiliar with skyscrapers, for all the harm they can cause this paper has never denied the dynamism, awe and wonder well-designed and well-situated tall buildings can inspire.

But the tragedy is that these young people will never know the other tradition that British urbanism championed before we imported tall buildings, the more human, intimate tradition that celebrated streets, terraces, squares, garden squares, mansion blocks and saw roofscapes and perspectives carefully stitched below the sky rather than punching egomaniacally into it.

 https://londonist.com/london/history/dining-in-the-post-office-tower In short, they will never know the tradition that enabled Britain and especially London to pull off the coveted urban trick that very few other places have ever been able to do: to essentially use our domestic architecture to distil mass urbanism into more personalised, intimate fragments that subsequently render the urban condition more liveable, civilised and humane. It is this precious tradition that the Building Beautiful programme, as well as this paper, seek to revive.

This should not be misconstrued as a nostalgic attempt to turn back the clock. For good or ill and for a very long time into the foreseeable future, tall buildings are here to stay. With the rapacious pace of redevelopment in London in particular and with the toxic axis of bad architecture, high maintenance and poor social integration still in full swing and regrettably reigniting the very real prospect that many even luxury tower blocks may well become ghettoes of the future, there is every possibility that within less than 50 years, we will already be pulling down many of the towers we are putting up today, thus naturally nullifying the problems this paper seeks to solve.

While increasingly controversial on environmental grounds, we already see this trend within Londoon's high-end commercial market with offices in once celebrated developments like London's Broadgate being demolished and rebuilt when they are barely 20 years old⁸⁵.

But the vertical constitution of the cities of the future will be challenges (or opportunities) for the policymakers of the day to meet. The challenge today, which this paper tries to address, is to stem the harm that tall buildings can and have caused, to ensure that new tall buildings, when permitted, make a genuinely positive contribution to their surroundings and to actively encourage consideration and adoption of alternative midrise building typologies that are better suited to delivering more homes, more quality, more community consensus, more heritage sensitivity and more contextual integration with surrounding fabric at less cost, less time and with less uncertainty.

There are of course many ways to achieve such aims. Higher quality design, more efficient planning, more effective public consultation and greater social cohesion would inevitably settle many of the problems associated with tall buildings. But in and of themselves these are individual levers whose efficacy might be unduly subject to the mood or inclination of whichever stakeholder or consultant happens to be behind the wheel. But as critic Kenneth Powell once sagely observed, "an architect can do nothing to a city without political will⁸⁶". What truly galvanises change is how this political will is discharged and it is the power of the engine driving these levers that ultimately regulates the nature and extent of their potential impact. And that engine is policy.

For it is only within the kind of comprehensive and strategic tall buildings policy that this paper proposes that the confusing, uncertain and increasingly ineffective planning process of arbitrary, discretionary and opportunistic speculation that currently and has always defined British tall building development (culminating in the problematic principle of

^{85.} https://www.theguardian.com/uk/2011/ may/12/broadgate-demolition-plan-row

^{86.} Kenneth Powell, New London Architecture, Merrell, London, 1993

public inquiry) can be replaced with a firmer, more prescriptive statutory footing that rejects piecemeal and haphazard development and clearly sets out a coherent and accessible vision for what we want our cities to be.

This should not be an undertaking that is alien to either the principle or process of planning. Development control is planning's municipal moniker and what else is the purpose and role of planning if not to control development? This paper merely calls on the planning system to implement a tall buildings framework that honours this core civic obligation and ensures that when it comes to integrating tall buildings into our urban fabric, policy and principle replace precedent and opportunism.

The housing crisis makes this challenge a uniquely urgent one. Why? Because in its entirely understandable desperation to mount the housing ladder, that same generation of young people for whom tall buildings are now normal and commonplace might be more inclined to tolerate their deficiencies in preference to not having a home at all. Particularly when they might not be as familiar as previous generations with the earlier more humane traditions that once characterised British urbanism and residential development. A lack of quantity always makes the prioritisation of quantity a harder premium to defend.

That is why it is imperative that any perceived prohibition against indiscriminate tall buildings must be accompanied by a concerted and renewed effort to deliver a new generation of mid-rise housing that provides the units and densities necessary to build our way out of the housing crisis but in a way that more effectively and consensually balances the needs of commerce and conservation.

In so doing, this paper and the recommendations included within it essentially represent the difference between solving the housing crisis and sustaining it. The prodigious housebuilding of the 1950s and 60s shows us that simply providing housing supply is not enough, if the stock created is to be truly sustainable then it must be something that people can value as well as occupy.

In an age of housing shortages, energy crises, cost of living challenges, declining high streets and intensified building safety scrutiny, it might be tempting to wonder if tall buildings are all that important at all. The majority of British towns and cities remain largely low-rise conurbations and the argument that tall buildings are a natural consequence of the constant cycle of dynamism and change that rightly characterises urban development is a seductive one.

But they matter because our cities matter and beauty matters. Our cities offer a communal projection of how we as a society are not only viewed by others but how we view ourselves. If the role that beauty plays in this conversation is compromised or ignored then we devalue our cities and gradually turn them into necessities rather than assets, inevitably impoverishing the urban condition. Building Beautiful has long argued that that urban renewal must start with aesthetic standards, enhanced civic consciousness and democratic consent. These are areas in which tall buildings are famously remiss, this paper offers a landmark and positive opportunity for this trend to be reversed.



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