CHAPTER 1

What determines the scale and location of tall buildings?

Since the Millennium, London has witnessed the construction of a series of tall buildings that have transformed the city’s skyline – from the Gherkin, which gained planning permission in 2000, through to The Shard, which opened in 2012, to The Leadenhall Building and 20 Fenchurch Street which are completing this year. And there are many more to come in the next few years, a veritable tsunami of towers: 236 buildings are in the pipeline, 113 of which are already approved for planning.

Some observers fear that what is currently taking place in London is dangerously akin to a Dubai or Shanghai-style free for all, a pell-mell race to the sky, in which planners wave through applications and count the boroughs’ development gains as a price well worth paying. Against that, other planners and developers argue that the expansion of towers in London has taken place under the aegis of a sophisticated and highly developed planning regime, which broadly controls where tall buildings can be located and determines what they should, or rather what they should not, look like. Tall buildings such as One Canada Square, the Gherkin or The Shard, have enhanced London’s status on the world stage, setting a visual marker for London as a powerful global player.

Tall buildings inevitably arouse controversy, all the more so in a city with such a rich historical fabric as London. The city’s skyline belongs to everyone, and people’s opinions often differ from those of the planning authorities, who themselves can clash over the many ambiguities that seem to riddle our planning regime. But the question that needs to be asked – and one which this study poses – is whether the planning process is working as best and as sensitively as it could.

Before that charge is properly examined, it is essential to clarify how the current system works. How do we go about making critical decisions on which tall buildings are allowed to be built and where? How do politicians, looking both to safeguard London’s heritage but also to regenerate large swathes of the capital, play their part in influencing the process? And what exactly is driving this current surge in demand for tall buildings in the capital?

As a small but telling indication of the difficulties of the subject, the very term ‘tall building’ eludes an exact official definition. The Greater London Authority (GLA) defines tall buildings as ‘those that are substantially taller than their surroundings’ or ‘cause a significant change to the skyline’. As a rule of thumb for its own purposes, the City of London says this translates to a height threshold of 75m above sea level.

London boroughs take their cue from the GLA, with local variations. The Lambeth Core Strategy, for example, defines tall buildings as developments over 25m high on sites adjacent to the Thames and buildings over 30m elsewhere.

This study has elected to consider tall buildings as structures with over 20 storeys plus those that vary significantly in scale from their surroundings.

1.1 Densification
London’s population is growing twice as fast as the rest of the United Kingdom. From 2011 to 2012 alone, the capital’s population grew by 1.3 per cent to 8.3 million. One in five of all UK births, around 120,000 per year, now takes place in London (ONS). Latest estimates indicate that London’s population may exceed 10 million by 2031 and 11 million by 2050.

This rapidly accelerating growth is driven by a number of factors: high birth and immigration rates, increasing life expectancies, and a greater number of people choosing to stay in London for longer. It places enormous strains on life in the capital, most notably with regard to housing, which has become the most pressing priority for policy makers in London and the south east.

The Mayor of London’s 2020 Vision, published in 2013 to set out his ambitions for the capital, posits the need to create 400,000 new homes in the next decade, and one million by the mid-2030s. He also predicts that there will be an extra 450,000 jobs by 2023, making the availability of office space an issue only slightly less critical than housing.

Professor Tony Travers of the London School of Economics, writing for the Housing Forum, said: ‘It cannot be a solution to the demand for housing in thriving places like London to move people ever further...’
City of London, 2025
© CPMG / Hayes Davidson / Jason Hawkes
out in search of cheaper places to live. The critical issue is how to bring about significant increases in supply without resorting to building extensively in the green belt, or beyond.

London’s policy makers broadly agree with Professor Travers. Historically, high-density housing was associated with overcrowding, particularly in lower-income areas. Now, thanks to the close correlation between high urban density, low energy use for transport, and the desire to curb the spread of the city into the Green Belt, it is seen as a key solution for achieving a sustainable city, and is made explicit in the London Plan. In looking at the relative densities of other large city conurbations around the globe, London’s existing density is in fact fairly low.

The formation of the Greater London Authority and the publication of the Draft London Plan in 2002 led to a new spatial strategy for London aimed at increasing densities and accessibility in order to create a more ‘sustainable and compact city’. According to this strategy – which had been strongly urged in Richard Roger’s 1999 Urban Task Force report – an increase in densities in highly accessible areas, can lead to positive economic growth, and more sustainable urban development, bringing many environmental and social advantages. Through combining mixed-use and mixed-tenure developments, particularly around public transport nodes, it argues that greater densities can bring more cohesive and sustainable communities, while halting urban sprawl. Following this approach, the London Plan sets targets for higher densities around London’s public transport nodes.

The Commission for Architecture and the Built Environment (CABE), established in 1999 and merged into the Design Council in 2011, agreed with the strategy but also noted that: ‘Higher density development leads to more intensive use of space and shared areas with implications for management, security and overall quality of life. Issues of noise, daylight, privacy and overlooking all become more acute as densities increase, requiring careful design.’ Unless this is done, ‘there is a risk of recreating the cramped and poor housing environments of the past.’

While tall residential buildings are one way of addressing London’s acute housing demands, they are not necessarily the only option. Talking of the new homes required, the Mayor has said: ‘These will not be high-rise rabbit hutches. They can be built with London’s traditional materials – brick and stone and slate. We have introduced new room sizes of Parker Morris plus 10 per cent, and there are plenty of examples in London where high densities can be achieved without high-rise buildings. ‘Where buildings are on top of or immediately adjacent to a transport hub, it may make sense to build high – depending on the historic or architectural context. There are some places such as Vauxhall or London Bridge where high-rise development is clearly right and has strong local support.

‘London is not central Paris. We do not have a single architectural idiom, or a rule that no building should be more than 83 feet high. That gives us great flexibility. But it is simply not the case that good quality high-density housing must always involve tower blocks. Of the 400,000 homes we will need over the next ten years, the vast majority can be built on the brownfield Opportunity Areas we have identified.’

Many urban planners over the years have also argued that tall buildings are not the only way to achieve densification. In 2002, a Parliamentary Select Committee for Transport, Local Government and the Regions reported that, ‘there is broad consensus amongst the witnesses that high rise is not the only or most efficient way to provide high densities. As the National Housing Federation pointed out, the Urban Task Force report, Towards An Urban Renaissance, found that that the same density could be provided by high, medium and low rise developments in different configurations.’

The Committee referred to the Georgian Group’s submission on Lillington Garden Estate in Pimlico which was designed by Darbourne and Darke in 1961-’71, and showed that high density and low-rise could be compatible. Commented the Georgian Group: ‘To some extent, Lillington Gardens was simply relearning the lessons of the Georgian era, where the typical urban terrace achieves a density of around 340 habitable rooms per hectare, compared with an average of around two.
thirds that figure for a conventional post-war housing development. A report in 2013 from think tank Create Streets, entitled ‘Create Streets: Not just multi-storey estates’, was also highly critical of building tall residential blocks as a solution to London’s housing crisis, arguing that building homes at street level can provide more homes than high-rise.

In fact the 2011 census shows the relatively low-rise London borough of Islington to have the highest population density of all local authorities across England and Wales, at 13,875 people per square km. Speaking at a recent NLA conference, Professor Tony Travers indicated that were the whole of Greater London to be developed at the same density, this could provide enough homes to increase London’s population to 20 million, far and away enough to meet current demand.

London faces intense pressures to accommodate its expanding population, whether through more dense construction at low to mid-rise, building upwards or expanding out beyond the city’s boundaries. Denefication is at the heart of the London Plan and no change of policy is likely on this while London’s population continues to grow.

1.2 The market

Commercial and residential land values in London are driven by a combination of factors – rising population, finite development land, a chronic shortage of housing, economic cycles and investor confidence, both domestically and internationally. When land is at such a premium, particularly in central London, tall buildings with high plot ratios can be an effective way of making the best use of available space. They can also offer the most profit potential.

However, the large upfront investments make tall buildings vulnerable to economic downturns. The Skyscraper Index, formulated by the Barclays economist Andrew Lawrence in 1999, detects a strong correlation between the completion of tall buildings, which were started in boom times, and the arrival of financial crises. Certainly, London has its share of tall buildings that fell victim to the world economic crisis of 2008 onwards, most notably the Pinnacle in Bishopsgate which was to become the tallest building in the City of London but struggled with funding and is now being reengineered to meet current market conditions. The Shard was nearly derailed by the global downturn in late 2007. However, with the onset of recovery recently, residential land values have risen – by over 20 per cent in the past year alone. Construction costs have also fallen – they currently sit 20 per cent below 2006 levels. And investor/developer confidence has returned, some of it money from China and other booming Far Eastern economies seeking a safe haven. Savills research has shown that 44 per cent of new residential developments have Asian owners, while the figure for the central London office market is 24 per cent.

In particular, demand for new tall buildings is being driven by the residential market. Some of this residential development is taking place in fast developing areas along the south bank of the Thames, while much is also happening in the Wood Wharf and South Quay area of Tower Hamlets. As AECOM explains in a paper published by the Council on Tall Buildings and Urban Habitat (CTBUH) in 2013: ‘With office values, in real terms, no different to the levels they attained some 20 years or so ago, there are a number of office-led developments that are incorporating a residential element, sometimes in the same building, creating a new typology of mixed-use tower.’

The cost of tall buildings is one factor that drives many developers to aim for the luxury end of the market. A Knight Frank report, ‘Tall Towers 2012’, states that ‘residential tower schemes are viable only when buyers are willing to pay a relatively high base price, starting at around £800-1,000 per sq ft. The higher the apartment, the higher the premium.’ And, of course, the more desirable the location, the greater the premium at any level. AECOM reports super prime residential schemes achieving between £2,500-£5,000 per sq ft.

The same height-price equation generally applies to commercial buildings too – the higher the floor, the more prestigious the address, and accordingly the steeper the rent.