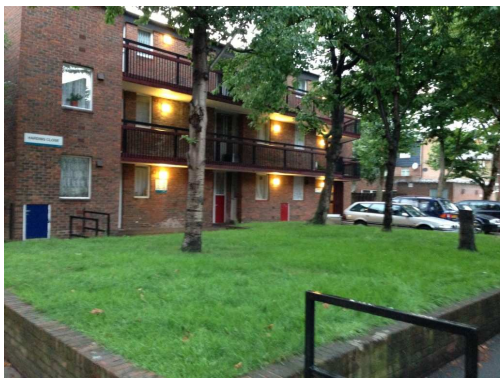
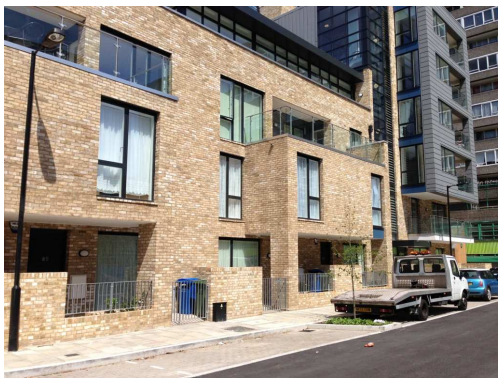
Better regeneration

how more competition, more capital and a sharper focus on social outcomes could create more & better homes for London – at no ultimate cost to the taxpayer





Pre-Budget Research Paper, 17 March 2014

Nicholas Boys Smith

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About Create Streets

Creates Streets is a social enterprise encouraging the creation of more urban homes with terraced streets rather than complex multi-storey buildings. Our core work as a Research Institute underpins all our activities.

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Executive Summary

- **Context.** The Chancellor of the Exchequer's Autumn statement contained a welcome proposal to 'explore options for kick starting the regeneration of some of the worst housing estates through repayable loans.' The Greater London Authority also seems to be investigating this idea. We are delighted with these suggestions which are aligned to our own suggestion that estate regeneration into streets could help solve the London housing crisis and that a revolving fund should be established to fund estate regeneration with popular support and a proper focus on the long term. Our pre-budget note sets out why this should and how this could be done

- **Streets are a good idea.** They are far more popular. Only 3 per cent want to live in flats with over 10 units in the buildings and between 80 and 89 per cent would rather live in streets of houses. Streets are also better for residents with controlled evidence correlating them clearly with better health, happier families, lower crime and a greater sense of community.

- **Streets are practical.** Terraced streets can be very high density. They are higher density than most post-war estates and could thus help solve the South East's housing crisis. They also have excellent long term returns due to higher long term value appreciation. However, their short term returns for immediate re-sale can be less good than maximum density high-rise due to lower square footage

  Regeneration is not producing conventional streets. High land values, the need for fast returns and an inappropriate regulatory regime is creating a second generation of multi-storey. Our research of 18 large schemes shows the density of housing increasing by 171 per cent from 72 units per hectare to 195 units per hectare. The average increase in height of the buildings was a shocking 227 per cent. Only one development studied had no new buildings above 10 storeys.

- **Proposals.** We should
  - **End the regulatory bias for high-rise and against conventional streets**
  - **Empower local people to take a far more active and important role in the regeneration process**
  - **Improve the focus on the long term via a revolving fund for estate regeneration**
  - **Pilot a Social Impact Bond helping regeneration to be more sharply focused on social outcomes**

Contents

Context: the London housing crisis and the opportunity of post-war low density multi-storey estates

The Chancellor of the Exchequer's Autumn statement contained a welcome proposal to 'explore options for kick starting the regeneration of some of the worst housing estates through repayable loans.'[1]

The Greater London Authority (GLA) is also investigating the idea. Their recently published funding prospectus for new affordable housing requests says:

> 'Organisations that are able to deliver affordable homes in London in the 2015-18 period and beyond, are also invited to submit expressions of interest for innovative ways of delivering affordable housing through a revolving investment fund.'[2]

What does this mean? We hope that it is a potentially very economically rational response to the housing crisis in London and elsewhere.

London has a very serious housing crisis which we are not currently meeting. The London Plan calls for 42,000 homes just to meet population increase. The Mayor's own analysis indicates an annual need of 49,000. However in the year ending in September 2013 only 17,950 homes were started and 16,240 completed. In the previous twelve months only 15,380 were started and 17,530 finished. In other words, **London is normally managing to build about forty per cent of the homes needed just to stay in line with population increases – let alone try to reduce sky high rents and purchase prices**.

An important opportunity. Around 360,000 multi-storey homes were built in London post-war[3]. Many were built in large multi-storey slab or tower blocks. Most were built not in 'conventional' streets but in more complex spatial arrangements (cul-de-sacs, semi-private courtyards, funky linked spaces etc). As we shall explore below, most of these developments were low density, badly conceived, badly designed and badly built. They are provably unpopular and correlated with poor liveability and with poor social outcomes even when you adjust for socio-economic status.

Where it is economically rational (i.e. they cost too much to maintain) and where there is strong local support, developing these estates as popular high density streets that resemble more closely the rest of London presents an important opportunity to help solve the London housing crisis by providing (we estimate) hundreds of thousands of additional homes.

If we use a range of estimates about how many extra homes could be built by redeveloping the sites on which these estates were built then we can project how many homes redeveloping these estates might provide. The results of this are shown in the table below.

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[1] HM Treasury, *2013 Autumn Statement* (2013), p. 61.
[2] Mayor of London, *Funding Prospectus*, (2013), p.11
[3] This figure is an educated guess rather a precise number. If anything it is likely to be too low. In the period of the multi-storey estate, roughly from 1951 to 1981, around 4 million social homes were built. (Based on data from Table 244 House building: permanent dwellings completed, by tenure, Gov.Uk website.). Not all of these were in multi-storey estates. And, clearly the vast majority were not built in London. But a 1981 study estimated that from 1951 to 1981 around 5 per cent of all social homes were built in medium storey estates and another 20 per cent were in high-rise estates. 36 per cent of all multi-storey estates were built in London (Dunleavy, P. (1981), *The politics of mass housing in Britain,* pp. 40-48.). Given these ratios then at least 360,000 multi-storey homes were built in London. In reality the number was almost certainly greater as high-rise constructions were more prevalent in cities than in towns.

Table 1: homes increase achieved through Creating Streets, low, medium & high assumptions

Scenario	**Level of dwellings that could be replaced**	**Additional homes due to increase in density if estates with 75 dwellings a hectare are redeveloped**			
		100 units h/a	*120 units h/a*	*140 units h/a*	*160 units h/a*
A	260,000	*86,580*	*156,000*	*223,600*	*293,800*
B	360,000	*119,880*	***216,000***	***309,600***	*406,800*
C	460,000	*153,180*	*276,000*	*395,600*	*519,800*

These are very high level estimates which need further work. As a consequence the estimated range is very high. Yet the mid-range of these estimates, between 216,000 and 309,600, would be that they could provide around 260,000 *additional* homes. Given that the level of new homes that the London plan calls for is now 42,000 new homes a year, this is roughly six years of housing supply – or enough to take us up to 2020.[4]

The highest estimate is over half a million homes, and would provide the London Plan's required level of housing for over a decade and a half. Moreover these housing figures do not rely on levels of density or a type of dwelling (such as the high rise or multi-storey estate) that local people are provably most likely to oppose. They would be a popular way to increase the number of homes being built in London. Even if this programme built just built 100,000 new homes, this is worth nearly three year's need in the London Plan and nearly five year's worth of supply at the current rate. Creating streets can clearly help with our housing crisis.

[4] Mayor of London, (January 2014), *Draft further alterations to the London Plan.*

1. Streets are a good idea

i. Streets are more popular[5]

The 360,000 multi-storey homes built in London post-war are a type of housing that is provably less popular. One MORI poll in 2013 found that 80 per cent of us would most like to live in a house, six per cent of us an apartment building with fewer than ten units and only three per cent of us in an apartment building with more than ten units[6]. This is backed up by poll after poll after poll. One 2002 survey, also by MORI, found that only two per cent of 1,018 British respondents said they wanted to live in a 'modern loft style apartment.' Zero per cent (literally, not a single person) wanted to live in a 'tower block flat'. In contrast, eighty nine per cent wanted to live in a house in a street. In another MORI national survey, 67 per cent did not want new tower blocks put up for living accommodation. Even if they were not personally forced to live in them, people clearly oppose new high-rise towers.[7] In a third MORI survey in 2005, less than one per cent wanted to live in any sort of high rise apartment at all.[8]

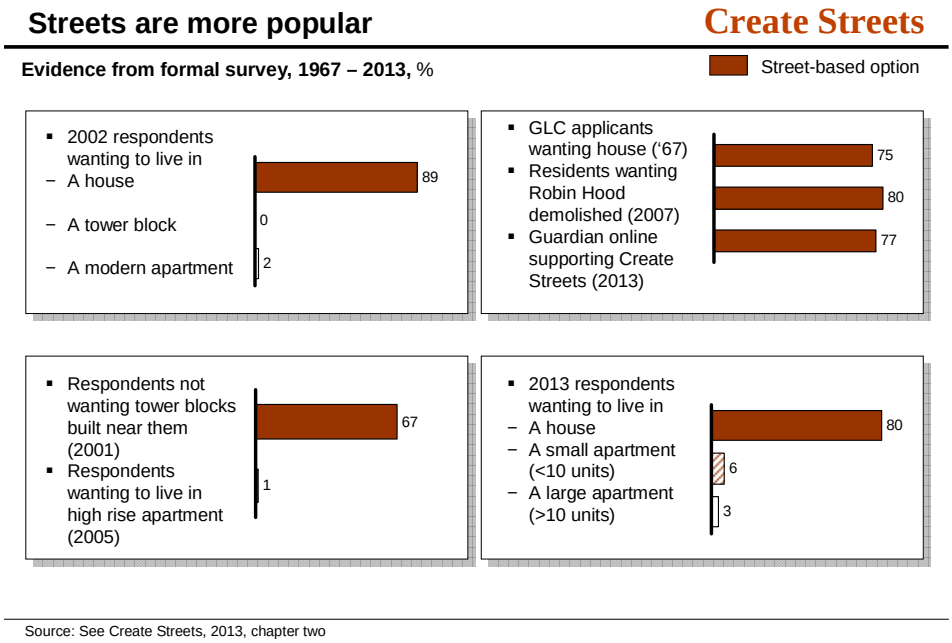
The same view emerges strongly from every survey in any decade. Mid-twentieth century Mass Observation Surveys reported consistently that people hated living in flats. One academic concluded in 1981 that 'very substantial majorities of residents in high flats would prefer to live in houses according to all the studies asking about housing preferences.'[9] For example, over eighty per cent of residents of one of the iconic British multi-storey housing developments, Robin Hood Gardens, wanted them pulled down in 2007.[10] Even more recently research carried out by MORI for RIBA on what people 'need and expect' from their homes found that the British continue to decline communal living. 'Private gardens were preferred to shared gardens'. This has particular relevance for London since 'those in urban London [were] most keen across all the groups to have some outside space in their new property.'[11]

People in tower blocks are the least happy with their homes. In seven controlled comparative surveys of people living in tower blocks and in low-rise housing, the people in high-rise blocks were the least satisfied – *even if their social and economic status was identical.* In the first survey, British flat dwellers complained more about privacy, isolation, loneliness and noise. In the second survey, an American comparison of otherwise equal college students randomly assigned to high or low-rise buildings, those in low-rise buildings were more satisfied. A nationwide Canadian survey found satisfaction highest among those in houses and lowest among those in high-rises. In a New York comparison of randomly assigned social tenants those in high-rise buildings were less satisfied with their building than those in low-rise buildings. The same was true of a survey of moderate-income households where high-rises were found to be less satisfactory than terraced houses or low-rise flats. In a sixth study, the taller the building, the lower the residents' satisfaction even when several possible influences (education, income, age) were taken into account.[12] Finally, a 2009 Indian study of 512 randomly selected families found a starkly

[5] For a more detailed discussion of the points in this section see Boys Smith, N. & Morton, A. (2013) *Create Streets*, chapter 2.
[6] ING, Homes in Europe (2013). Underlying data which was requested directly from ING.
[7] Most desirable housing types overall were the bungalow (30 per cent), the village house (29 per cent), the Victorian terrace (16 per cent) and the modern semi (14 per cent). *Bungalows are people's choice in England*, MORI 2002. *Tall Buildings – public have their say for first time,* MORI 2001.
[8] Evans, A., Hartwich O.M. (2005), *Unaffordable housing.* pp. 21-2.
[9] Dunleavy, P. (1981), *The Politics of mass housing in Britain,* p. *94.*
[10] Cited in Stewart, G. (2012), *Robin Hood Gardens – the search for a sense of place* (Wild Research), p. 16.
[11] RIBA (2012), *The way we live now,* p. 49.
[12] Cited in Gifford, R. (2007), "The Consequence of living in High-Rise Buildings" in *Architectural Science Review, vol. 50.* pp. 4-5.

'unfavourable perception of the housing environment by the residents of high-rise buildings.'[13] In general most people are clearly opposed to high-rise living.

Figure 1.



Source: See Create Streets, 2013, chapter two

Urban planners and designers who work with communities to understand what they truly want find that it is conventional streets that are consistently the most popular. The American architect and planner, Anton Nelessen, has devised the Visual Preference Survey. This asks participants in a neighbourhood to rank images of places, spaces and land uses on a scale from +10 (love it) through 0 (indifferent) to -10 (hate it). Results across surveys have not been tabulated but recent surveys show a strong preference for streets you can walk in as opposed to large buildings or high-rise. A recent survey in Washington State showed 76 per cent opposed to new high-rise. 60 per cent favoured three storey town houses. Another recent survey in Connecticut found participants liked 'tall buildings, close to [the] sidewalk' and disliked anything 'five storeys or taller.' Professor Nelessen has also commented from his extensive experience that members of the public 'when left on their own to design, after minimal orientation . . . will always produce a design that looks like a traditional community.'[14] Human beings know what works and what doesn't.

The evidence on what people say they like is backed up by the hard data on where they live and what they will pay for. In 2001 there were 21.6 million households in England and Wales. 4.2 million of these (19 per cent) lived in the social rented sector. However, the social rented sector accounted for 48 per cent of households living on or above the second floor of a building, 56 per cent of those living on or above the third floor of a building, and 71 per cent of those living on or above the fifth floor of a building. Strikingly of 142,000 households living on or above the fifth floor of a building, 100,000 were social tenants. The higher the floor the more likely an

[13] Chatterjee, M. (2009), 'Perception of Housing Environment among High-Rise Dwellers' in *Journal of the Indian Academy of Applied Psychology, 35, pp.85-92.,*

[14] Nelessen, A. (1994), Visions for a New American Dream', p. 100. Visual Preference Surveys accessed at, http://www.easthamptonct.org/pages/Booklet7.pdf and http://cosweb.ci.shoreline.wa.us/uploads/attachments/pds/towncenter/VPSR.pdf. Accessed October 2012.

inhabitant is to have been put there by the council or a housing association and the less likely to have chosen it in the private sector.[15]

An even more dramatic disconnect between what people *choose* and what social tenants *have* to do emerges from comparing households with children. 75 per cent of children living on or above the third floor, and a startling 79 per cent of those living on or above the fifth floor were social tenants despite the fact that social tenants only make up 21 per cent of households with children. If you are a child in social housing you are *sixteen times* more likely to live on the fifth floor or above than a child in private housing. In Inner London 31 per cent of children living in social housing live in a dwelling that has a minimum floor that is the second floor or above. For all children the comparable figure is 2.3 per cent.[16] This is a staggering gap.

The housing market further reflects these strong preferences. Put simply, other things being equal (and often even when they're not) square foot for square foot conventional houses in conventional streets sell for more than flats in tower blocks or medium-rise leviathans. There are a few top end 'apartments' that charge a premium. However they are vanishingly small as a proportion of the overall housing stock and are largely confined to a few exclusive enclaves (the Barbican or high-rise developments looking over the Thames or Hyde Park). In the current high-rise building boom this proportion must be going up but it is worth reflecting on the fate of multi-storey buildings built a decade ago in the East End. Anna Minton has uncovered how many East End 'executive apartments' have in fact ended up as anything but.

> *'The view from the "executive apartments" at Rushgrove Gate swept down across the river to the steel and glass towers of Canary Wharf. Round the corner the Docklands Light Railway sped commuters to the office in minutes. Yet the spanking new apartment blocks didn't feel quite as the brochure promised, and not only because of the brutalist 1960s deck-access block visible through the window. Rather than housing the Docklands professionals the flats had been built for, all the residents were homeless.*
>
> *Rushgrove Gate was built in 2005. . . . Imagine Homes marketed the property in Woolwich for six weeks, during which time it failed to turn up a single buyer. Instead there was plenty of demand for the properties from another source – homeless families.*
>
> *[This] wasn't an isolated case: it was starting to happen in developments all over Docklands. In this bizarre new market cycle, when new blocks failed to sell to individuals, they were bought by buy-to-let investors, who then leased the flats back to local councils. As councils are legally obliged to provide emergency temporary accommodation for people who become 'unintentionally homeless', these flats ended up as temporary accommodation. Fuelled by the severe shortage of social housing, this was common practice by 2005, creating a very lucrative business opportunity for investors, who were paid hundreds of pounds a week by councils to house homeless people at market rents*.'[17]

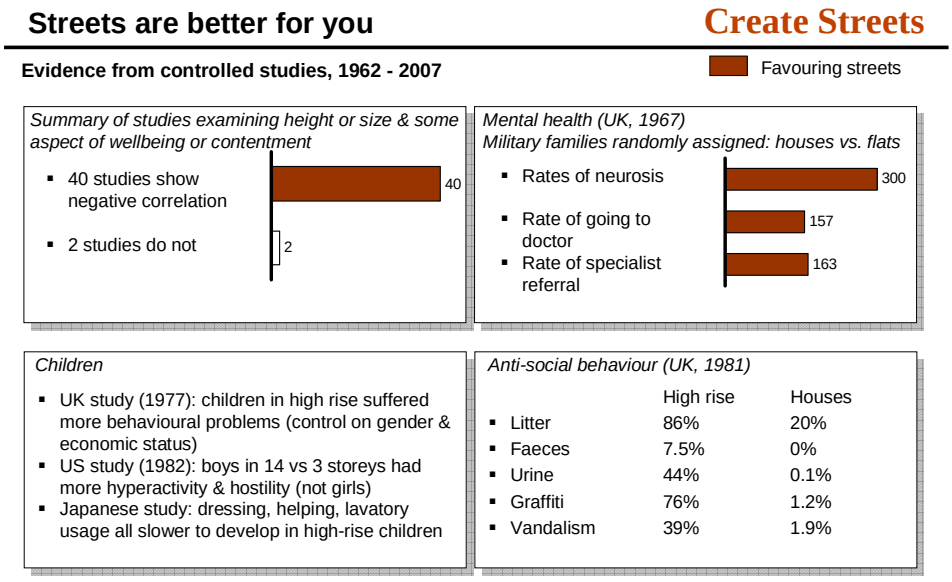
[15] Office of National Statistics, www.ons.gov.uk, 2001 Census. Data from 2011 Census on this not yet available.
[16] Office of National Statistics, www.ons.gov.uk, 2001 Census. 2011 Census data not yet available.
[17] Minton, A. (2012), *Ground Control,* p. 120.

ii. Streets are better for you[18]

The evidence also strongly suggests that living in large multi-storey living is also correlated with less good social outcomes even when you adjust for socio-economic circumstances. The vast majority of controlled studies show that the residents of high-rise blocks suffer from more strain and mental health difficulties than those in low-rise buildings, even when socio-economic status is identical.[19]

To cite just a few examples, a 1978 study of working-class and lower middle class residents of the Bronx in New York found 'vast differences' between those living in high-rise and low-rise buildings. Those in high-rise had less social support, a lower sense of control over their lives and felt more crowded than their sociologically identical neighbours in low-rise buildings.[20] UK researchers have found that mothers in flats are more depressed and lonely, that rates of mental illness rose with floor levels, that psychological symptoms increased in high-rise buildings and that those moving out of high-rise became happier and less depressed. A study that controlled carefully for age, education and occupational level found that husbands (though not wives) in flats rather than small houses had a greater incidence of psychiatric illness, that fathers had worse relationships with their children (hitting them more often) and that marital discord was higher.[21]

Figure 2.



Source: See Create Streets, 2013, chapter 3

The same appears to be even truer for children. Most studies have found clear correlations between high-rise living and childhood behavioural problems – again even when socio-economic status is comparable. No study has found high-rise living

[18] For a more detailed discussion of the points in this section see Boys Smith, N. & Morton, A. (2013) *Create Streets*, chapter 3.
[19] At least 40 studies show a negative correlation between multi-storey living and good outcomes. By contrast, we are only aware of two studies (one from 1962 and one from 1974) with no correlation between those living in high-rise and poor mental health. The 1962 study showed slight improvements in mental health as slum-dwellers moved into high-rise. The 1974 study found comparable levels of maternal psychiatric well being in high-rise, low-rise and family dwellings. See Gifford, R. (2007), "The Consequence of living in High-Rise Buildings" in *Architectural Science Review, vol. 50.* p.6.
[20] McCarthy, D. & Saegert, S. (1978), 'Residential density, social overload, and social withdrawal' in *Human Ecology,* 6. pp. 253-272.
[21] Cited in Gifford, R. (2007), "The Consequence of living in High-Rise Buildings" in *Architectural Science Review, vol. 50.* pp. 6-7.

beneficial to children. One matched 99 pre-school children on gender and economic well-being and found that children in high-rises suffered from more behavioural problems[22]. In another boys (but not girls) who lived in fourteen versus three storey buildings were rated by teachers as having more problems such as hyperactivity and hostility[23]. Other studies have found children in high-rises suffering from more bedwetting and temper tantrums and that the best predictor of juvenile delinquency was not population density but living in blocks of flats as opposed to houses. One Japanese study found that the development of many skills such as dressing, helping and learning to use the lavatory was slower.[24]

The data would appear to suggest three key reasons for these observed differences. Firstly, the difficulties that multi-storey buildings pose for those bringing up children. It appears to be much harder to bring up children in large blocks of flats – particularly high-rise ones. Several studies show that children go outside less when they live in high-rises and that they spend more time playing alone or in restricted play. This is not without consequences. For example, one controlled study, compared mothers of under 5s in the Newcastle estate of Cruddas Park. 62 per cent of mothers living on the sixth floor or above reported difficulties with the 'play, health [or] personality' of their children. 53 per cent of mothers in high rise below the sixth floor reported issues. However only 3 per cent of mothers in houses reported issues.[25] Many other studies corroborate this.

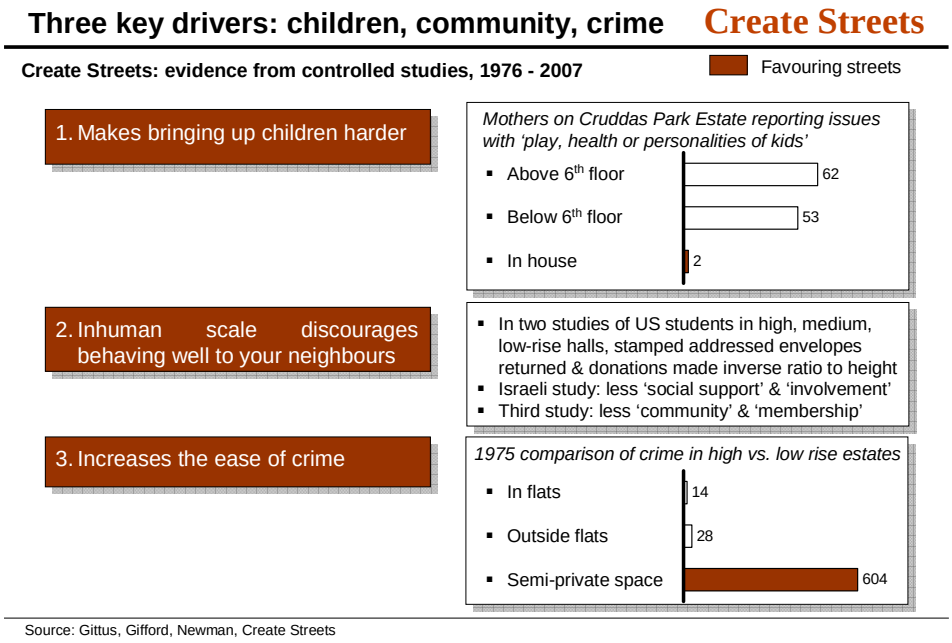
Secondly, although none of us are controlled by our environment, the atomising and dehumanizing size of multi storey buildings appear to makes it harder for some of us to form relationships or behave well to our neighbours. As Winston Churchill put it (admittedly in a very different context); 'We shape our buildings, and afterwards our buildings shape us.'[26] At least eight separate studies from around the world show that high-rise residents have fewer genuine friendships with their neighbours than low-rise residents. In one Israeli study, women who lived on high floors knew more neighbours but those on lower floors had closer relations with those that they knew. Those with garden flats had three times as many friends in the building as those on high floors. In another study residents of low-rise buildings had fifty per cent more local friends than residents of high-rise buildings. Two other studies found that social relations were poorer for high-rise residents.[27] In two 1970s studies stamped addressed envelopes without a return address were placed on hallway floors in college halls of residence that were 22-25, 4-7 and 2-4 storeys high. Letters were mailed in inverse proportion to building height in both studies. Donations were also sought of milk cartons for an art project. The fewest donations *per capita* were received in high-rise blocks. Interviews of student residents in these and one other Israeli study also reported that social support and involvement declined with height within buildings. A comparison between those in high-rise flats and garden flats found that those in garden flats had a significantly greater sense of 'community' and a greater sense of 'membership'[28] This evidence corroborates the recollections of many residents of neighbourhoods bulldozed to build estates that the local sense of

[22] Richman, N. (1977), 'Behaviour problems in pre-school children' in *British Journal of Psychiatry.* 131, pp.53-58.
[23] Saegert, S. (1982) 'Environments and children's' mental health: residential density and low income children' in Baum, A. & Singer, J. *Handbook of psychology and health, pp. 247-271.*
[24] Cited in Gifford, R. (2007), "The Consequence of living in High-Rise Buildings" in *Architectural Science Review, vol. 50.* p 8., p. 10.
[25] Gittus, E. (1976), *Flats, families and the under-fives*, p. 81.
[26] He was talking about how the House of Commons should be rebuilt following its destruction in a German air raid in 1941. Hansard, 28th October 1943.
[27] Cited in Gifford, R. (2007), "The Consequence of living in High-Rise Buildings" in *Architectural Science Review, vol. 50.* p.10.
[28] Cited in Gifford, R. (2007), "The Consequence of living in High-Rise Buildings" in *Architectural Science Review, vol. 50.* p. 9, p. 10. A comparison of elderly Afro-Americans in high-rise and low-rise buildings found a similar phenomenon though other social differences between the two groups meant that the survey was only suggestive.

'community' never recovered. As one Deptford resident recalled, 'once they started pulling everything down, it all died.'[29]

Finally, multi-storey buildings can create myriad opportunities for crime due to their hard to police semi-private corridors, walkways and multiple escape routes. These offer a plethora spaces which are hard (or at any rate expensive) to survey and which offer multiple escape routes. Streets with windows and doors looking out onto them are open to easy public view. If they have bay windows, if houses are near the street (as in old fashioned terraced housing) or if doors are raised above ground level they are also particularly easily policed by residents simply looking out of their front windows or standing by their front doors. Committing a robbery outside a house on a street is possible. But it does mean exposing yourself. And there are likely to be witnesses. By contrast one famous US study found that for a sociologically similar neighbourhood, while crime was only 14 per cent greater within flats themselves, it was 604 per cent greater in the interior public spaces of high-rises compared to low-rise.[30]

Figure 3.



In some estates it has proved possible to 'design out' anonymous but easily accessible spaces. Following on from studies in the 1970s and 1980s, remedial work was done on many multi-storey estates. Entrances were given keypads and buzzers. Connecting walkways between blocks were dynamited. Extra doors were built to restrict the number of dwellings per entrance. Where budgets permitted, CCTV and even a concierge were introduced. These changes were intended to reduce anonymity, increase the level of surveillance and reduce alternative escape routes. Many of these changes have had a positive impact – particularly where it has proved possible to provide full time surveillance or in some tower blocks where it is easier to control access. However, improvements are expensive and limited. Where this has worked, such as Trellick Tower, there has usually also been a socio-economic shift to more affluent professionals, often without children. Such groups can bear the higher costs that multi-storey living needs in order to work. Further, building multi-storey blocks only to lobotomise the scale and space which is their defining feature seems a

[29] *Our Streets, Deptford High Street*, screened on BBC2, 6 June 2012.
[30] Newman, O. (1996), *Creating Defensible Space,* pp. 9-30.

little perverse – and certainly expensive. One study by the Centre for Housing and Planning Research at Cambridge University described them as 'resource intensive, both in capital expenditure and in ongoing revenue expenditure.'[31] Houses and streets provide the same features without the need for the paraphernalia of buzzers, a salaried concierge and monitored CCTV. As the American writer Jane Jacobs put it pithily: 'this is something everyone already knows: A well-used street is apt to be a safe street.'[32]

[31] Jones, M. (2012) High density housing – the impact on tenants, p. 4.
[32] Jacobs, J. (1993), *The Death and Life of Great American Cities,* p. 44.

2. *Streets are practical*

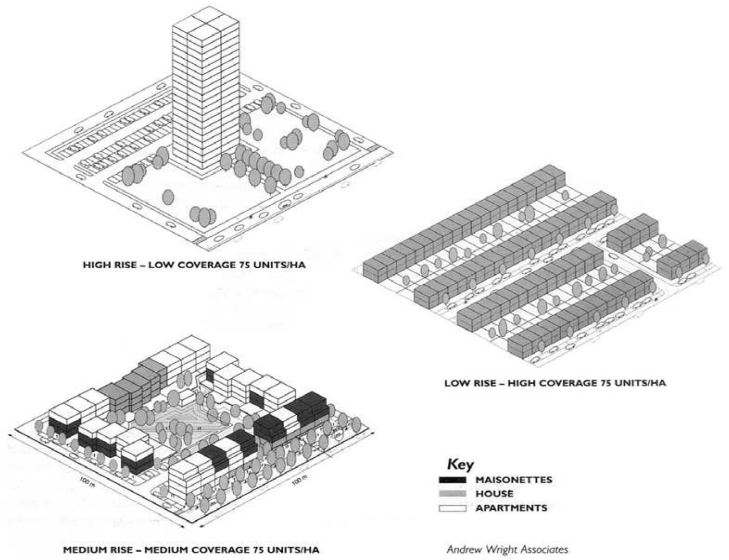
i. Streets can be very high density[33]

It is not necessary to build high in order to beat current housing densities. It is often stated, that high-rise housing is necessary to achieve high densities. This is not true. It *is* true that the very highest densities are only achievable with high-rise building. Clearly a town composed entirely of tower blocks of 40 storeys is going to be hard to beat. Kowloon in Hong Kong reaches 1,250 units per hectare and around 5,000 people per hectare.[34] But most of the post-war developments in Britain were influenced by the Le Corbusier ideal of shared spaces. This meant that they surrounded their tower blocks and linked slabs with large open spaces. The consequence was that many British developments actually *decreased* housing density. During the post-war rebuilding period the population of Southwark, the borough that built more high rises than any other comparable area, (9,640), actually *decreased* by two thirds.[35] In Newham the population fell by 20 per cent from 1951 to 1971 as the council built 6,740 tower block dwellings.[36] We can *improve current densities while reinstating the traditional street pattern.*

Experts and town planners are unanimous that terraced houses and medium rise flats can very easily match or beat the densities of existing multi-storey housing developments.

- Analysis by the architects and planners, Andrew Wright Associates, quoted by the 1999 Urban Task Force report showed how a 'typical' UK high-rise development in landscaped gardens had a density of 75 units / hectare. This was readily matched (in the same analysis) by standard urban terraced housing which easily reached 75 units / hectare.[37] This is achieved through different ways of configuring land use, as the diagrams below show.

Figure 4.



[33] For a more detailed discussion of the points in this section see Boys Smith, N. & Morton, A. (2013) *Create Streets*, chapter 7.
[34] CABE (2005), *Better neighbourhoods,* p. 7.
[35] Coleman, A. (1985) *Utopia on trial,* p. 82.
[36] Dunleavy, P. (1981), *The Politics of mass housing in Britain,* p. 48, pp. 205-7.
[37] Cope, H. (2003), *Capital gains: making high density housing work in London,* p. 23.

- A comparison made by the Commission for Architecture and the Built Environment (CABE) in 2005 agreed. It compared some 'typical' Victorian / Edwardian terraced houses in Hertfordshire with 80 units / hectare and 320 people / hectare to the zones planned by the post-war planner, Sir Patrick Abercrombie. His typical 'medium density' zone only reached a density of 84 units / hectare and 336 people / hectare despite high-rise building.[38]

- The London School of Economics reached a similar conclusion that conventional style terraced housing could easily reach required densities: 'Notting Hill, Lancaster Gate and Earl's Court with five and six storey houses . . . are among the most densely populated neighbourhoods in the country, but prove that density can be achieved without very tall structures.'[39]

- Analysis by the planners MJP Architects in 2005 also showed how very conventional streetscapes of terraced housing, mews housing, terraced maisonettes and mews housing with flats and maisonettes could perfectly easily reach densities of 77, 87, 111 and 120 units / hectare respectively.[40] Further work by the same firm demonstrated how terraced homes could easily reach 100 units / hectare and match 12 to 14 storey apartments. They concluded that, 'combinations of house types and layouts can achieve densities often thought to require flats. The inclusion of non-family accommodation in flats can raise density further or increase the ratio of public open space as green infrastructure'.[41]

- The 2011 London Housing Draft Supplementary Planning Guidance notes some of the most valuable and successful parts of London are high density streets: 'housing developments in Maida Vale, Notting Hill, Belgravia or Bloomsbury often reach over 200 dwellings per hectare and three-storey Victorian and Edwardian terraces around outer London's town centres can be as high as 100 dwellings per hectare.'[42]

- A study (*A House in the City*) by Robert Dalziel and Sheila Qureshi Cortale and published by RIBA cited many examples of high density housing achieved within a conventional streetscape (for example Paris achieving 1200 HR/hectare) and concluded unambiguously that 'a relatively high density was achievable without the recourse to a point-block format'[43]

- A report by RIBA agreed with these findings and realised that the critical reason generously proportioned Victorian housed were often as dense as 80 units / hectare was because 'houses were built in straight lines, often in terraces, which maximises plot coverage. Roads were narrower and houses built alongside each side – in contrast to many newer schemes where the 'distributor-and-cul-de-sac' model results in a lot of unused space within the road layout.'[44]

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[38] CABE (2005), *Better neighbourhoods,* p. 7.
[39] Cited in Kunze, J. (2005), *The revival of high-rise living in the UK and the issue of cost and revenue in relation to height,* University College London, p. 12.
[40] MJP Architects (2005), *Redefining Suburbia*, pp. 9-12.
[41] MJP Architects, *Further Studies by MJP Architects, pp. 4-5.* *http://www.sustainablesuburbia.co.uk/webpages/Presentation7.html. Accessed December 2012.*
[42] Mayor of London, (2011), *Housing Draft Supplementary Planning Guidance,* p.29.
[43] Dalziel, R. & Qureshi Cortale, S. (2012), *A House in the City, pp. 20-4.*
[44] RIBA (2009), *Improving housing quality,* pp. 9-10. The report argued that this was no longer possible due to the need to 'provision for car parking.' However, this seems misguided on two levels. Firstly, many Victorian terraced streets seem to have perfectly adequate space for car-parking in the streets. Secondly, even if it is accepted that on-street parking is not ideal (which is arguable) abandoning the most successful, most popular, most economic housing model on this alter seems to be an extreme example of putting the cart before the horse, or at rate the car before the house.

- Lord Rogers has noted that 'in central London, we are still building at an average density of 78 dwellings per hectare. This is around half the density of the Georgian terraces of Islington and Notting Hill'.[45] This implied density of 160 units / hectare is dependent on a mix of houses used as houses and houses used as flats. However it is over double the 75 homes a hectare that post-war estates typically achieve. The Urban Design Compendium supports this with typical densities for mixtures of terraced houses and flats in an urban setting ranging up to 175 units / hectare.[46]

- Finally, a study conducted at Cambridge University concluded that, 'high density housing can be provided in built form similar to the scale of the larger Georgian terraces, with three to five storey buildings around shared open space. Acceptable developments of this type can be designed within a range of densities generally between 300 and 400 habitable rooms per hectare.'[47] This again involves reliance on flats as well as houses but equates to around 100 – 175 units per hectare.

These are very important findings. They mean that *reinstating the traditional street pattern can notably increase the existing density*. In most cases, due to their unpopularity and low occupation levels, replacing post-war estates with streets would lead to a rise in occupancy which would enhance this impact.

Because terraced housing is flexible and can be easily either divided into flats or kept as whole houses, they are a better long term investment. Areas often change from mature family living, which often requires whole houses, to young professional living or families with very small children, which require maisonettes, and back again. By creating a flexible stock we ensure that an area can respond to this change as it occurs rather than needing to rebuild an area as the demographic shifts. It ensures that families can have access to green space as their children reach the age when they can be allowed outside. Creating streets would allow a major increase in housing. But it would also allow much better and more flexible housing.

ii. Streets can offer attractive long term returns[48]

Data from the Halifax, Savills, University College, London and the Brookings Institute all indicates that, quite apart from the social benefit, the long term returns from high-density 'normal' and well-connected terraced streets of houses and medium rise flats can be fantastic. Data from the Halifax, for example, show that 'traditional' pre-1919 homes in a 'conventional' street format in London have risen by 1284% in price since 1983.[49] Their more modern contemporaries have risen by half as much.

Savills research has also shown how three conventional high-density street-based developments generate 32% more value per hectare and 9% more value per developed square foot than the type of more complex less 'conventional' development which is still, sadly, typical.[50] Other Savills research shows how parts of London which are well-connected and in the form of high-density terraced streets and squares are more valuable, other things being equal, than areas which are not.[51]

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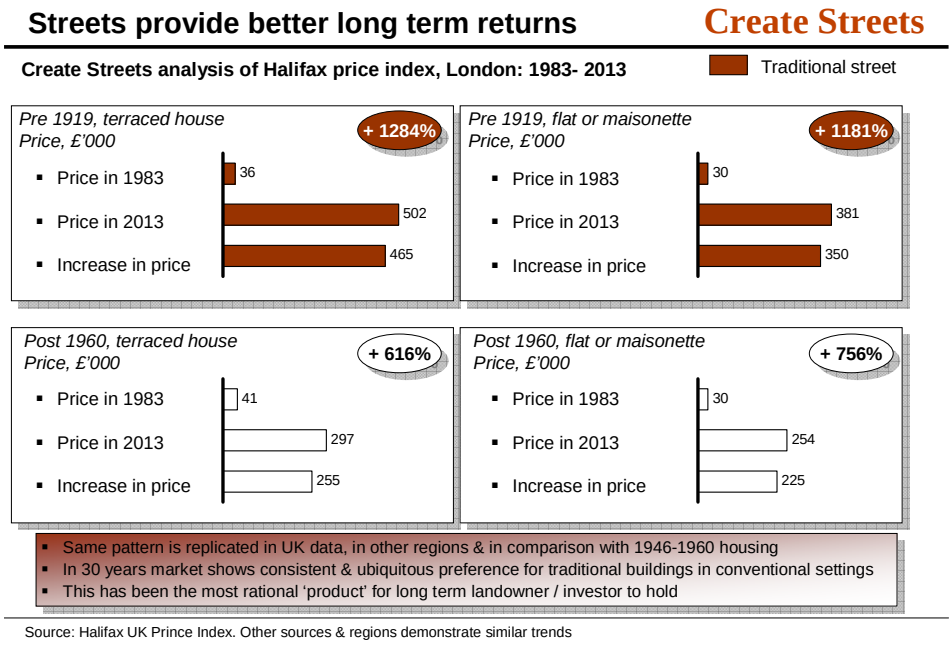
[45] *Housing for a Compact City*, Greater London Authority, 2003
[46] Urban Design Compendium (2007, 2nd ed), p.48.
[47] Jones, M. (2012) High density housing – the impact on tenants, p. 14.
[48] For a more detailed discussion of the points in this section see Boys Smith, N. & Morton, A. (2013) *Create Streets*, chapter 6.
[49] http://www.lloydsbankinggroup.com/media1/economic_insight/halifax_house_price_index_page.asp. Accessed December 2013.
[50] Prince's Foundation for the Built Environment, (2007), *Valuing Sustainable Urbanism.* See especially pp. 81–96.
[51] Savills Research, (2010), *Development layout.*

Meanwhile, data from Space Syntax (a spin off company from University College, London) shows conclusively how the most valuable streets are the best connected ones (with an 88% correlation between spatial accessibility and rateable value per square metre).[52] Research by the Brookings Institute corroborates this in the US.[53] So does Create Street's own research.[54]

However, these higher returns appear typically to take longer to feed through. The additional premium that streets can generate over time seems to be a simple function of the fact that people like them more and are prepared to pay more to buy or rent places to live in them. But this does not happen over night for new builds. A place cannot be manufactured. It can only emerge over time as the right combination of neighbours, shops and other services are attracted to a neighbourhood. A strong 'sense of place' is valuable but it takes a while to become apparent.

Figure 5.



Source: Halifax UK Prince Index. Other sources & regions demonstrate similar trends

[52] Presentations made by Tim Stonor on 8th March 2011 and 26th April 2012 available at www.slideboom.com. Accessed in June 2012. See also, Hillier, B.
and Hanson, J. (1984), The social logic of space.
[53] Alfonzo, M. and Leinberger, C. (2012), *Walk this way*, p. 9.
[54] Boys Smith, N. & Morton, A. (2013) *Create Streets*, pp. 53-4. We will be publishing more on this later in 2014.

3. Regeneration is not producing conventional streets

i. The vicious circle of high cost and high rise

Having come to a halt in 2008, estate regeneration is at last starting to 'pick up' with schemes (for example such as the Aylesbury in Southwark) which were stalled now in progress again. We are aware of ten major estate regeneration projects currently underway or in advanced planning. No doubt there are others. Large well capitalised Housing Associations are also once again able to raise capital at attractive rates to fund building – typically 95bps above reference rates on 30 year money. One senior urban design professional has even predicted that 2014 will be 'the year of estate renewal.' Is there really a problem? Sadly there is.

First of all we're still building too slowly. Given the desperate need to build homes and bring down sky-high rents and prices in London we are massively under-shooting on delivery. As we saw above, with only 16,240 homes completed in the twelve months to September 2013 we are only managing to build forty per cent of the homes needed just to stay in line with population increases.

Secondly, we're not doing it right. Estate regeneration is following a well-established model which is a rational response to the current system but which normally results in **slow, confrontational and unpopular regeneration.** By maximising the number of units on a relatively small number of regenerated sites and by imposing a top-down model, we minimise the number of sites that get regenerated.

Current estate regeneration projects are carried out mostly in partnership with commercial developers (as indeed are most large development projects in London). They typically have several common features. To start with they **normally need rapid returns from the early sale of many units.** This is for a range of reasons: Firstly, land values are very high, driven by constrained supply of sites. Secondly, there is an increasing expectation that uber-densities will be permissible which in itself drives up values further. Thirdly, a cumbersome and lengthy planning process pushes up costs even more. So does a strong demand both from domestic and international investors, eager to buy in to what they see (certainly wrongly) as a one-way bet on capital values.

The best way for commercial partners (who are mostly cash-flow businesses, quite reasonably looking to maximise short-term profit from sales) to cope with the high land and rental values and meet their investors requirements is to build big and build high.

Even when land is not being bought, Council and Housing Association land owners typically require private sector support to fund and manage redevelopment. Replacement homes must be funded from private sector sales and the cost of development finance (typically 7-8 per cent) and the profit targets of investors (typically 20 per cent in a fairly short time frame) then require the same high returns.

It is hard for public bodies to dodge this dilemma. The Best Value test requires **maximised immediate value.** Local authorities and other public bodies are required to secure 'best value' when disposing of assets and land under the 1999 Local Government Act. 'Best value' is also demanded when existing housing is being redeveloped. In the primary legislation 'best value' was deliberately defined broadly to permit local and specific variation.

> ‘A best value authority must make arrangements to secure continuous improvement in the way in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness.’[55]

Given the range of individual circumstances, it is not unreasonable that the concept of ‘best value’ has been left open to local interpretation. The problem is that, absent hard and fast rules, local authorities and public bodies have typically found it safest to focus on higher initial land value (and thus much quicker cash returns) over long-term (but ultimately higher) investment returns accruing over time via a co-investment. This is despite the fact that several government studies make it clear that consideration *may* be given to the wider benefits of regeneration.[56]

Coupled with ‘Viability Assessment’ in the planning process which accepts the price paid for land as an admissible development cost, this allows developers to argue that because they paid so much for the land, their proposed schemes can only be viable with less policy-compliant levels of Affordable Housing. As developer ‘A’ secures consent for 40 per cent provision, then developer ‘B’ thinks they can achieve 35 per cent and so on. The result is developers increasing bids for land in the hope of securing more development and Planning Authorities accepting higher levels of development than their policies might justify, in order to maximise the number of homes developed.

Then, **density targets and design rules in the London Plan** and the London Housing Design Guide make it hard to build conventional high density normal streets.

- Super-high density targets in Central and Urban areas make it hard to achieve planning agreement to build conventional terraced houses and low-rise flats (these can be high density but cannot achieve the top end of some the density ‘bands’ sometimes demanded)
- The ban on recycling open space between buildings into private gardens makes it is very hard to redevelop estates into streets
- Requiring lifts in all apartment buildings makes it more expensive to recreate the typology typical of many dense, street-based areas of London with apartments on a number of floors off one staircase. This also incentivises higher building as the cost of lifts does not increase substantially as more floors are added, once the initial cost is incurred.
- Rules against staircases being too narrow or too steep make it harder to build the conventional tall but thin London terraced houses
- A requirement that ten percent of homes be fully wheelchair accessible and for all homes to be built to ‘Lifetime Home’ standards biases the system in favour of large, partially off-road, blocks
- Four contributory barriers add to this
  - A dislike for on-street parking biases the planning system against conventional terraces and streets
  - Heavy requirements for bike storage, make it much harder to build terraced flats and conventional terraced homes
  - Heavy requirements for bathrooms on storeys with bedrooms make it harder to build the conventionally tall but thin modest London terraced homes
  - Requiring ‘weather protection’ over front doors adds yet more cost to terraced streets with multiple entrances

[55] 1999 Local Government Act.
[56] For example, DCLG (2010), *Valuing the benefits of regeneration*.

- A range of rules on windows and room heights also make it harder to build houses which obey the classical rules of proportion and 'fit in' with historic neighbourhoods

We have already explored these issues in detail in our previous Research Report, *Why aren't we building more streets in London ?*[57]

ii. The consequences – a second generation of multi-storey

As a result of these economic and planning pressures the proposed built form of current and recent developments and regenerations nearly always move to **uber-densities and recreate a second generation of multi-storey buildings** often interspaced by large open areas. The highest towers and the biggest multi-storey blocks are often reserved for the types of prosperous owner-occupier or non-resident cash purchaser for whom high rise multi-storey housing is most appropriate. These influx buildings then invite further concerns and controversy over 'gentrification' and homes built for non-residents not Londoners. Recent headlines in *The Evening Standard* read, 'Mayor urged to stop rise of 'monster towers' that threaten historic skyline' and 'Luxury tower blocks "squeeze out Londoners as prices boom".'[58] Nor are these concerns restricted to 'heritage' organisations or those already in social housing. Peter Rees, chief planner for the City of London has complained about 'this rambling rubbish of residential towers across London.'[59] NLA (New London Architecture) is also planning an exhibition on the subject in April 2014.

Of 236 towers currently being built or with planning permission, 80 percent are to be entirely residential. It is not clear how much of this new provision will be affordable[60]. A survey of publicly available information on 18 separate current, planned or recent redevelopments and regenerations justifies these headlines. Where data is available, the average increase in number of units is 163 per cent. Most redevelopments are more than doubling the existing number of units. This is reflected in densities which in the sample rise by 170 per cent from an average of 72 units / hectare to 195 units / hectare[61].

This is not to say all the developments listed below are 'bad' or that their architects or developers are not often thoughtful and well-intentioned. Some are well and carefully designed given their necessary scale, typology and density. Nor is to say that density increases are never possible or appropriate. Many post-way multi-storey developments were developed at too low a density to 'work' as a bit of the inner city. As we saw, the population of Southwark, the borough that built more high-rise than any other comparable areas, actually decreased by two thirds.[62] Density increases of around 30-70 percent are typically possible in inner London schemes when putting back traditional streetscapes. In outer London increases of over 100 percent can be possible. However, the only way to get beyond this to the current average increase of 170 per cent across London is by building high and by building big. And that is indeed happening.

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[57] Boys Smith, N. (2013) *Why aren't we building more streets in London* explored this issue and there has been some consequent movement – for example the relaxation of standard 3.2.5 in December. Mayor of London, *Funding Prospectus* (2013), p. 26.
[58] *Evening Standard*, 30 Jan 2014, p. 28; 3 February 2014, p. 24.
[59] *Evening Standard*, 30 Jan 2014, p. 28.
[60] *Financial Times*, 12 March 2014.
[61] The before average of 71 units / hectare does not include sites where there are no current homes. The averages cited in the text are weighted averages reflecting different sizes of different developments rather than simple arithmetic averages of the table. Analysis conducted with publically-available information in January and February 2014.
[62] Coleman, A. (1985), Utopia on trial, p. 82.

Table 2: density and unit increases in current regenerations & redevelopments

Site	Units			Density (units/hectare)[63]		
	Before	*After*	*% uplift*	*Before*	*After*	*% uplift*
Lillie Road	24	65	171	119	324	171
Earls Court	760	6775	791	24	210	791
Aylesbury	2,759	4200	52	115	185	56
Heygate	1107	2462	122	114	254	122
Wooddene	320	333	4	168	174	4
Packington[64]	538	695	56	839	150	56
Kidbrooke	1906	4800	152	64	160	152
Woodberry Park	1981	5561	181	76	214	181
Colville	438	900	105	88	180	105
Haggerston	480	761	59	113	179	59
Kings Crescent	270	760	181	65	183	181
Heathside	565	1201	113	93	198	113
Chester Road	25	53	112	104	221	112
Agar Grove	249	493	98	91	179	98
Aberfeldy	297	1176	296	45	178	296
New Union Wharf	189	399	111	111	235	111
Robin Hood Gardens	252	1575	525	140	250	525
St John's Clapham Junction	353	528	50	156	233	50

An analysis of nineteen regeneration and redevelopment sites shows that the typical increase in height is around 227 percent with only one redevelopment (the Packington in Islington) having a final maximum height of fewer than 10 storeys. Similarly, the NLA has calculated that 236 towers of at least 20 storeys are either under construction or being planned, of which three-quarters are residential.'[65]

Sometimes this second generation of multi-storey blocks are slightly smaller than the blocks that preceded them (for example, the Aylesbury). Sometimes they are bigger (for example, St John's Hill, Clapham). They often look rather attractive in the architect's images (but then so did the original images of the post-war estates). However, they are undeniably, a second generation of multi-storey homes in London.

[63] Habitable rooms per hectare is a 'better' measure however more comparable data is available for units.
[64] Phase 2
[65] Financial Times, 27 January 2014. http://www.ft.com/cms/s/0/e9bd2786-875c-11e3-9c5c-00144feab7de.html?siteedition=uk#axzz2rdF3Y7bZ Accessed 11 February 2014. Financial Times, 12 March 2014.

Table 3: height increase in current regenerations & redevelopments

Site	Current max height	Local typical height	New height	Uplift
	Storeys			*%*
Lillie Road	3		12	300
Dairy Crest site	6		32	433
Seagrave Road	1	4	16	1500
Aylesbury	13	3-4	20	54
Heygate	11	5	16	45
Wooddene	7	3	9	29
Packington[66]	8	4	8	33
Whitechapel Road	2	8	18	800
Woodberry Park	8	2/3/4	31	288
Colville	12	5	20	67
Haggerston	6	4	10	67
Kings Crescent	6	3	12	100
Heathside	7	3	17	143
Chester Road	4	4	6	50
Agar Grove	18	5	20	11
Aberfeldy	9	4	10	11
St Andrews, Bromley	7	5	27	286
New Union Wharf	6	NA	14	133
Robin Hood Gardens	10	NA	40	300

In order to 'sell' these enormous blocks to local planning officers, developers (be they private or Housing Associations) have made much of large areas of open space. For example, at St John's Hill in Clapham where 353 homes are being increased to 528, 13,600 square metres of open space are also being provided[67]. The evidence, however, that people really prefer these types of public open space to more private gardens (however small) is non-existent. A recent focus group run by MORI for RIBA found that typical apartment block residents interviewed 'appreciated that the properties were set in a natural area [but] they felt that this space was difficult to use as a personal outdoor area as sharing the area with others did not tend to work well.' This is for practical reasons. It is not by chance that parents had the strongest preference for private gardens. One interviewee commented: 'I would like my living space to lead onto my garden. At the moment I'm upstairs and the garden's down. My son is a terror, he needs space to run but I don't always want to be out in the garden.'[68] But perhaps it goes deeper too. Multi-storey housing and public open space seems to contradict so many essentially private and domestic notions of

[66] Phase 2
[67] http://www.peabody.org.uk/news-views/peabody-awards-contract-for-120m-st-johns-hill-regeneration Accesed 26 January 2014.
[68] RIBA (2012), *The way we live now,* pp. 52-53.

British life. In 1940 George Orwell defined the English culture that is 'most truly native' as 'the pub, the football match, the back-garden, the fireside and the "nice cup of tea" . . . . It is the liberty to have a home of your own, to do what you like in your spare time, to choose your own amusements instead of having them chosen for you from above.' [69]

Figure 6.

St John's Hill, Clapham: medium to high-rise **Create Streets**

ii. The consequences – a top down, expensive planning process

Due to these economic and planning pressure to build big **developers can rarely risk engaging in a process of genuine bottom-up consultation or neighbourhood planning**. The risk is just too great that people will opt for what they nearly always opt for (conventional streets) when the economics and the rules make this very hard to deliver. Therefore the 'master-plan' is just that, a 'master-plan' imposed from on high not a 'bottom-up' exercise in democracy or localism. The large decisions (massing, scale, number of units) are already made. All that remains for the tenants or neighbours is to be consulted on which blocks are which height and what surface finish is most appropriate. As Dave Hill, *The Guardian*'s influential housing correspondent, said of the two most high profile current regenerations (Earl's Court and the Heygate);

> *"They share the common thread of too many of their residents feeling ignored, let down, pushed around and misused by the respective boroughs and property developers concerned . . . . What residents object to, though, is having the grand projets of others imposed on them from above, whether by politicians, planners, architects or anyone else."*[70]

Hardly surprisingly the 'fight back' from residents against development on which they don't feel consulted is strident and passionate. The fight at Earls Court has been

[69] Orwell, G (1941), *The Lion and the Unicorn,* pp. 39-40. (Penguin edition)
[70] *The Guardian*, 10 January 2014. http://www.theguardian.com/uk-news/davehillblog/2014/jan/10/creat-streets-london-tower-blocks Accessed 25 January 2014.

particularly protracted[71]. Time after time this theme emerges. 91 percent of residents opposed redevelopment of the Packington Estate in Islington at greater than 3-5 storeys. They were overruled.[72] The Clapham Junction Action Group complained of the proposed redevelopment of the St John's Hill Estate that 'The main criticism is obviously the size of some buildings. Located at the top of the hill a 12 storey tower will appear to be about 16 storeys.'[73] But a high rise build is going ahead. In a recently proposed development in Peckham, consultees are quoted as feeling that 'a tall building might be out of character with the rest of the area, might overshadow any new public space in front of the station, and might make Rye Lane feel more congested and unsafe.' Despite this, 'the current scheme still proposes a taller building on this corner' (and indeed another elsewhere on the site). In a fine example of Orwellian doublespeak, the official document then continued that 'planning policies afford site specific justifications to be taken into account for taller buildings based on local context, townscape and quality of design.[74]' What this really means is that density targets tell us we need to build this and planning policies provide with the excuse for doing so despite the lack of public support. Another very recent example is the monolithic and multi-storey proposed development at Mount Pleasant where locals feel they have been systemically ignored and fear that the GLA is now going to impose a decision from on high. Edward Denison, the convener of the Mount Pleasant Forum went so far as to write of a 'sham consultation.'[75]

The consequence of this are **a massively long and expensive planning process** as residents frequently fight tooth and nail against what is being proposed**.** The cost of the planning process at Earl's Court does not seem to be publicly known but must run into multiple millions. This also undermines practical political support for house-building. Despite a near consensus that new homes are necessary, the local politics of building them is poisonous – filled with vicious ill will and suspicion. This does not just slow down house-building. By making the whole process far more risky and expensive it acts as a barrier to entry to smaller or less well capitalised providers.

In short, many new large scale regenerations are being done at a sort of uber-density that is unpopular. And they are using building types that simply repeat many of the errors of the 1950s-70s.[76] Some multi-storey housing in East London, less than 15 years old, is already becoming dense repositories for the unintentionally homeless.[77] We are risking repeating the errors of 40 years ago. This cannot be wise.

[71] For a good timelines see *The Guardian*, http://www.theguardian.com/uk-news/davehillblog/2013/oct/13/earls-court-project-london-timeline. Accessed 11 February 2014.
[72] *Packington Estate Planning brief*, *Appendix 4* (2005), available at www.isllington.gov.uk accessed in December 2011.
[73] Website of Clapham Junction Action Group. http://cjag.org/2011/11/08/peabody-redevelopment-the-proposal/ Accessed 12 February 2014.
[74] Improving the Area Around Peckham Rye Station, Network Rail (2014), p. 2.
[75] Camden New Journal 23 January 2014.
[76] Boys Smith, N. (2013) *Why aren't we building more streets in London,* pp. 27-9.
[77] Minton, A. (2012), *Ground Control,* p. 120.

4. Proposals

i. End the regulatory bias against streets

Given the potential increase in density, the popularity of streets and the controversy surrounding many current regenerations Create Streets is arguing for changes that would make it far easier to regenerate post-war estates not as a second generation of off-street multi-storey and high rise blocks but as **conventional high density terraced London streets with strong popular support**. How could this be done ?

First of all a critical part of the answer is to remove or improve the rules in the London Plan and the London Housing Design Guide which currently bias regeneration against high density normal streets. This would make it easier and cheaper to build the types of high density conventional streets in which most people want to live and could help solve the housing crisis and deliver more, and more popular, housing.

We have set out the necessary changes in our research note, *Why aren't we building more streets in London*, published in October 2013. This identified eleven key barriers to building streets in London embedded in the London Housing Design Guide and in the London Plan

- Six fundamental barriers need to be removed:
  - Super-high density targets make it hard to achieve planning agreement to build conventional terraced houses and low-rise flats
  - The ban on recycling open space between buildings into private gardens makes it is very hard to redevelop estates into streets
  - Requiring lifts, wheelchair lifts and stair-lifts in all cases makes it more expensive to build conventional vertical flats off one staircase
  - The national 'best-value' test is misinterpreted to favour higher initial land value over the type of long-term (but ultimately higher) investment returns typically associated with street-based developments. This forces developers' to favour smaller unit, repetitive, high-rise blocks built quickly for quick payback
  - Rules against staircases being too narrow or too steep make it harder to build the conventional tall but thin London terraced houses
  - A requirement that ten percent of homes be fully wheelchair accessible and for all homes to be built to 'Lifetime Home' standards biases the system in favour of large, partially off-road, blocks

- Four contributory barriers need to be removed or reformed:
  - A dislike for on-street parking biases the planning system against conventional terraces and streets
  - Heavy requirements for bike storage, make it much harder to build terraced flats and conventional terraced homes
  - Heavy requirements for bathrooms on storeys with bedrooms make it harder to build the conventionally tall but thin modest London terraced homes
  - Requiring 'weather protection' over front doors adds yet more cost to terraced streets with multiple entrances

- A range of rules on windows and room heights also make it harder to build houses which obey the classical rules of proportion and 'fit in' with historic neighbourhoods

- Our previous research note made detailed and specific recommendations on which rules could be scrapped or altered to reduce this material bias in the London planning system against terraced streets

The current Government review of Housing Standards presents City Hall with an excellent opportunity to cease gold-plating national standards. This would encourage more development and more popular development. We are delighted that one of the suggestions made in that work has been picked up by the Mayor London's funding prospectus published in December 2013 which relaxed standard 3.2.5.[78] More changes are required however.

ii. Improve focus on the long term with a revolving fund

It is not just rules but also financial considerations which drive the creation of large multi-storey blocks. As we saw above high land values, the combative and expensive planning system, the need for private finance on major schemes and the high costs of development capital all conspire to require high returns to pay down debt quickly or generate returns of 20 percent plus to equity investors. Unfortunately, the increased value of high density terraced streets come through time as a strong sense of place feeds into private rentals and values. The financial return from large multi-storey blocks may well be less in the very long term. However, it is certainly more in the short term as it maximises income and sale value immediately at the expense of potential value growth over time.

Create Streets has therefore started to explore different ways in which the government could shift the economic equation of regeneration to the very long term and catalyse redevelopment of large, public sector housing estates with a proper focus on long term value and social good whilst also ensuring that the government's capital (and it's cost of capital) is fully returned. Based on our interim analysis we believe that this is possible. We hope that this might answer the challenge set out in the Government's Autumn statement.

One option would be to create a **revolving fund** from central government to owners of large estates or allow the Public Work Loans Board to lend for this purpose.

Launching, or at any rate piloting, this would not even necessarily involve any short term increase in public spending. The Government is already spending or putting at risk considerable sums to subsidise affordable housing. Under the Housing and Planning package, the Government is guaranteeing £10bn of debt to subside both affordable and private rented housing. In 2012 the Government announced that it would also be making £225m of funding available for new affordable housing. This was doubled in the 2013 Budget to £450m, including London, to support up to 30,000 new affordable homes.[79] In January 2014 £500m was made available as a loan via the European Investment Bank though it was not entirely clear from the publicity whether this was new monies or just a 'release' of money already announced.[80] There is also the Get Britain Building fund which is aimed at stalled projects in a fashion not entirely different to that described here.[81]

[78] Mayor of London, *Funding Prospectus* (2013), p. 26.
[79] http://www.homesandcommunities.co.uk/ourwork/affordable-homes-guarantees-programme Accessed on 25 January 2014.
[80] https://www.gov.uk/government/news/funding-boost-for-new-affordable-homes Accessed on 25 January 2014.
[81] See http://www.homesandcommunities.co.uk/get-britain-building accessed December 2013.

Why not move some portion of these large sums of money explicitly to fund estate regeneration? The Mayor of London would clearly be interested in the idea. The Mayor's December 2013 funding prospectus sets out that:

> 'Organisations that are able to deliver affordable homes in London in the 2015-18 period and beyond, are also invited to submit expressions of interest for innovative ways of delivering affordable housing through a revolving investment fund.'[82]

The GLA also seems to be interested in estate regeneration. The funding prospectus continues; 'we encourage providers to bid for funding for new build homes in estate regeneration projects.'[83] Though some large Housing Associations with a good track record can currently borrow at competitive rates, most Housing Associations cannot. Nor can private sector developers whose financing muscle is currently also required to regenerate large estates access anything like the same rates. Construction or development finance is typically 7-8 per cent. These rates force a focus on rapid payback from sales at volume.

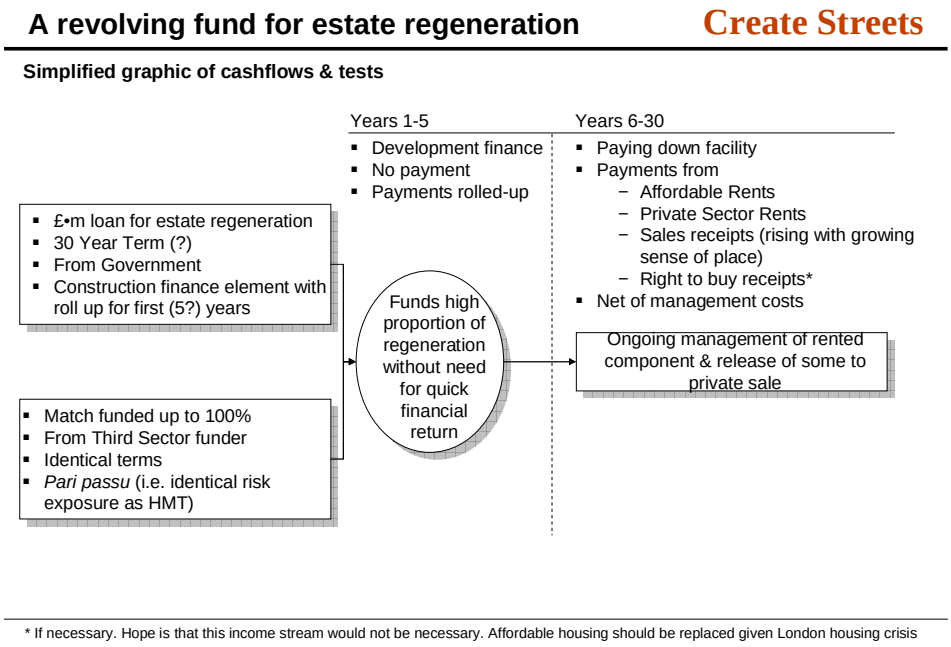
This is how a revolving fund might work:

- Local councils or Housing Associations could draw on the fund if commissioning large scale street-based redevelopment
- It is a loan not a grant – with a cost of capital rate of interest, perhaps linked to 'Prudential Borrowing' rates
- The nominal term would be long term – say 30 years
- They could use this loan to commission development
- The fund should be specifically available only for redevelopment of estates where running costs, the cost of refurbishment and the state of buildings have made the **current financial situation unsustainable**, making redevelopment the most rational long term approach
- The fund should also only be available when there is **genuine and very real local support for regeneration**. This is absolutely critical. The fund should only be permitted to support regeneration that has been clearly passed in a local neighbourhood plan. Otherwise there is a risk of the fund merely being used to accelerate the type of second generation multi-storey which currently predominates. The new neighbourhood planning mechanism shows how this could be done (see chapter 8)
- The proposal backed by local people would have to be **sufficiently densely developed and attractive to private as well as affordable tenants to pay back the loan over a medium to long time frame**
- Although local people should have the final say on matters of design and typology the working assumption should be that estates are regenerated into a design and typology that connects well with the rest of the city, is correlated with good social outcomes and is likely to function as a genuinely mixed neighbourhood
- The loan would be paid off using a mixture of surpluses of rent over running costs of replacement and new affordable homes, private sales, retained equity stakes in shared ownership homes being 'staircased out' over time and (if necessary) by hypothecating future Right to Buy receipts from the redeveloped estate[84]

[82] Mayor of London, *Funding Prospectus*, (2013), p.11.
[83] Mayor of London, *Funding Prospectus*, (2013), p.22.
84 This would require the existing rules for the re-use of Right to Buy receipts being amended to allow future receipts from sales in the redeveloped estate to be applied to repayment of such a loan, rather than to the provision of new, affordable homes.

- We would argue that the best way to maximise the impact of the loans and to encourage a wide range organisations to start thinking more about the economics and sociology of estate regeneration would be to make a modest series of payments available to RSLs whose regeneration leads to measurably better social outcomes over time (see chapter 9).

Figure 7.



In most developments if density could be sufficiently increased (without going to the uber-densities now being seen on some schemes), the income from rents and sales could pay back the loan from central government and any match funding within the timeframe of the loan. That said, once all or part of the development finance portion of the regeneration is past, it might be possible for the government and the social investor to partly exit their position in tandem and sell their loan at par to more conventional investors seeking stable, long term, sterling-referenced property investments with good security (e.g. pension funds). The institutional market for long term residential property investments in the UK is slowly emerging. And the Government is taking sensible steps to help it do so. For example, the 2011 Budget introduced changes to Stamp Duty Land Tax which mean that large-scale investors pay a typical 1% instead of 5% on bulk purchases[85].

Table 4, below, is a simplified example of a real and fairly small estate in outer London. It is based on a real place and is currently composed of a series of small towers and slab blocks in non-defined open space. The blocks are mainly of concrete with partial brick veneer on some external walls. Other than some flats that have been sold under Right to Buy it is owned by a fairly small and local Registered Social Landlord (RSL). The example shows how, without moving to the sort of uber-densities currently being demanded by rules and land values, it is perfectly possible for a development of houses and flats on streets to pay for the costs of demolition and rebuilding. In this example a revolving fund could easily be paid back within a few years. There would be no need for the very high densities and fast pay pack of 20 percent profit margins current regeneration relies upon. The consequence would be a development which rather than paying back fast could provide an excellent

[85] Stamp Duty will be assessed on the average value of individual properties rather than on the overall value of the portfolio

place to live for many many years and which (if partly held in the private rented sector) would also provide a great return for an institutional investor.

At present the RSL owner of this site can raise some finance to redevelop the site. It seems unlikely however that they will be able to raise sufficient funds to develop the site in its entirety. That, together with current rules, means that there must be a risk that the site gets redeveloped at a density far above the local average and thus with a built form very different from the suburban streets that surround it.

Table 4: Generic example based on simplified real site in outer London

Item	Cost or volume
Existing scheme	
Flats in existing scheme	~200
Area	~3 Hectares
Density	65 units / hectare
Annual income from controlled rents & ground rents to RSL	£398,000
Annual maintenance & other costs (including sinking fund for future repairs) to RSL	£290,000
NPV of existing scheme	£2m
New scheme (inc. 100% replacement of social housing habitable rooms)	
Number of additional houses	170
Number of additional flats	54
Average value per house	£412,000 (£325,000 - £525,000)
Value per flat	£218,000 (£175,000 - £250,000)
Build cost per house	£126,000-£240,000
Build cost per flat	£99,000 - £145,000
Density (Units / hectare)	141 units / hectare (117% increase)
Estimated project cost of new housing	£70m
Sale value of new market stock	£82m
Annual maintenance & other costs	£226,000
NPV of remaining social housing	£3m

Different variants on how the revolving fund worked would also be possible. The scheme might allow tenants to move *if they want* with outright purchase of their existing tenancy. This would be voluntary and allow sales of new build properties. This would be particularly valuable in Inner London. That this is a voluntary option cannot be over-stressed so that existing residents do not in any way feel they are being compelled to move. Possibly rates could also be more generous if there was some exposure for the match-funder to any capital value increase in the site.

We have not done a full study of locations of where this scheme might work but have conducted indicative analysis in a near inner London site and in an outer London site (the example show above). In both cases the possible 'value-gradient' (i.e. the amount of additional value that could be generated by creating a good place) were sufficient to make the scheme work economically and to make pay-back readily possible without moving to the sort of uber-densities currently common practice.

iii. Empower local people

As we saw above much recent regeneration has been bedevilled by difficult public consultation and real anger at perceived lack of consultation or 'gentrification.' This is hardly surprising. The current economic model, and the rules, make for a near certain clash between what any large scheme must be and what most people want. True public consultation is therefore almost impossible to achieve.

There are many who consequently believe that many public consultations are little more than sham PR exercises often conducted as much as an intelligence gathering exercise to plan for defence against potential objections as genuinely to gauge residents' views. Indeed some property PR firms also specialise in public consultation.

Some have complained that proposals are presented as *faits accomplis* with options presented as economic necessity or objections to massing and scale dismissed as irrelevant to planning rules. For example, at a recent proposed development of two 38 storey towers in South London (where the existing buildings were only 4 storeys) one feedback form only asked for attendees' views on what shops the area needs and what the proposed courtyard should feature.[86] Others have complained of poorly-advertised exhibitions with plans 'spun' by designers in the best possible light with misleading graphics, models and vague statistics

This is disappointing because under the Localism Act 2011 pre-application consultation processes are required only for major infrastructure projects or residential developments of more than 200 units. However this, we understand, has yet to be enacted.

In place of this top-down system we think more use can be made of the government's still new neighbourhood planning and local referenda approach. This could unleash a truly bottom-up process of place-making that serves the needs of the local community and makes it impossible to dismiss concerns. The local community should have the power to set the parameters within which development could occur in their area, so architects and developers would for the first time be required genuinely to engage with the people most affected by their schemes. This would also have clear benefits for developers – they would be on a much clearer footing with regard to what they would be able to build, as local preferences would be largely known in advance and some of the horse-trading that happens with planners as they act supposedly 'on behalf of' the local community would be eliminated. The whole planning process would be speeded up and the costs of development could fall. This in turn would mitigate some of the contributory pressure for trying to push through uber high-density schemes in the first place. Inserting local democracy would also go some way to disrupt the process described in chapter 5 above, where land values get constantly bid up in the expectation that planners would accept a corresponding diminution in the proportion of Affordable Housing and/or hugely increased densities.

We are therefore proposing that in order to access this fund:

- **local people must have been actively encouraged to run a neighbourhood plan in advance**. One of the major constraints on neighbourhood plans is funding. Only £7,000 is available. It would be right for a greater total sum to be made available from either the local planning department's budget or the primary landowner or the lead developer or some combination of all three;

[86] Also see the examples cited above on pp. 24-5.

- **Local people should be given an explicit 'right to override' local planners where what is being proposed is not supported by local people**. Should local planners try to impose something that is not supported by local people then there should be a right to create a new neighbourhood plan in a set period of time if a majority in an area vote against what is proposed

In addition, some changes would be wise in the London Plan

- **The London Plan should require that all large scale estate redevelopment should go through a neighbourhood plan and referendum process**
- In order to try to defuse some of the politics and scaremongering of state regeneration, the **London Plan should also clearly set out that social tenants will not be required to move or see changes to their tenancies as a result of redevelopment**

In order to unleash a genuine wave of public support for regeneration it must be not just accepted as 'inevitable' or 'the best of the options available.' It must be embraced with genuine passion and excitement by people across London.

Something that might help this would be a competition held by either the Mayor's office, or a major institution with a London-wide standing, (e.g. the *Evening Standard* newspaper). This would seek entries that architects, local people, planners or developers believe:

- Would redevelop a multi-storey estate.
- Would gain the support of local people in a neighbourhood plan.
- Would inspire people and make London a more beautiful place.
- Would show that high density living can be achieved through terraced streets.

We think that the prize for this should be a commitment to funding to steer this through the neighbourhood plan process as well as a small cash prize. This is the perfect opportunity for the Mayor to commit and engage with this agenda and we would hope that he would be able to present this award some time in 2014 or 2015.

iv. Improve focus on social outcomes with a pilot Social Impact Bond

Given the dangers we are currently running of repeating the mistakes of the 1950s, 60s and 70s, we believe there is a need to introduce mechanisms to encourage developers to think about and measure what impact their work will have on society and social outcomes. What gets measured gets done. The planning system has certainly not proved up to the task. Indeed, despite the very best of intentions, it has consistently pulled in the opposite direction. In the 1950s, for example, a Conservative administration introduced the disastrous 1956 Housing Subsidy Act which actively promoted and state-subsidised the development of tower blocks.[87] More recently, a blizzard of detailed regulation has actively mitigated against the construction of conventional high-density terraced streets – despite the fact that such housing is provably more popular and correlated with better social outcomes even when you adjust for social economic status.[88]

[87] Dunleavy P, (1981), *The politics of mass housing in Britain,* p. 37
[88] See Chapter 6 and Boys Smith N (2013), *Why aren't we building more houses in London ?*

One idea that might be worth piloting in this context and in conjunction with revolving funds for estate regeneration would be payment by results for regeneration. What might this mean and how might it work in practice ?

Payment by Results (PBR) schemes are ways of paying external providers typically based on a percentage of the savings that their outcomes generate for the public purse. Schemes based on PBR have been becoming more popular under governments of *both* political hues over the last fifteen years. One early example was the Labour Government's introduction of Employment Zones in 2001. Employment Zones were pilot schemes which outsourced the provision of support for unemployed people to find work and paid the commercial or third sector providers more on successful results than on process. If a job-seeker entered work the provider received a small bonus (about £400). However, in order to encourage placing the unemployed in the most suitable jobs there was a much larger payment (typically about £2,500) if the participant held down the job for 13 weeks. By contrast, the benchmark scheme of the time (the New Deal) was neither outsourced nor did it pay on results. Perhaps unsurprisingly, Employment Zones achieved faster and better results and provided more intensive and flexible support to the unemployed than the New Deal alternative. They placed a higher proportion of people into jobs (45 per cent versus 28 per cent), a high proportion into jobs that lasted more than 13 weeks (34 per cent versus 22 per cent), had a greater impact on local unemployment and proved marginally better at helping the hardest to help.[89] The coalition government picked up on this approach and rolled it out nationally as the Work Programme which launched in June 2011.The Work Programme pays provider a modest Start Fee, a larger Job Outcome Payment when a claimant has been in work for 26 weeks and then ongoing Sustainment Payments as a former claimant stays in work for up to 52 weeks.[90]

The problem of standard PBR contracts is that the service provider must cover the initial costs of delivering services. Many potential providers find this difficult, particularly social enterprises and charities, as they often do not have the capital available to provide services in advance of being paid. Social Impact Bonds (SIBs) have therefore been devised as ways of financing Payment by Results contracts. A SIB is a way of enabling socially-minded investors to fund the provision of a service delivered by a social enterprise or charity on the basis that they will receive a return on their investment from government – if the service delivers the results specified in the PBR agreement. The idea is that SIBs benefit government, social enterprises and society by;

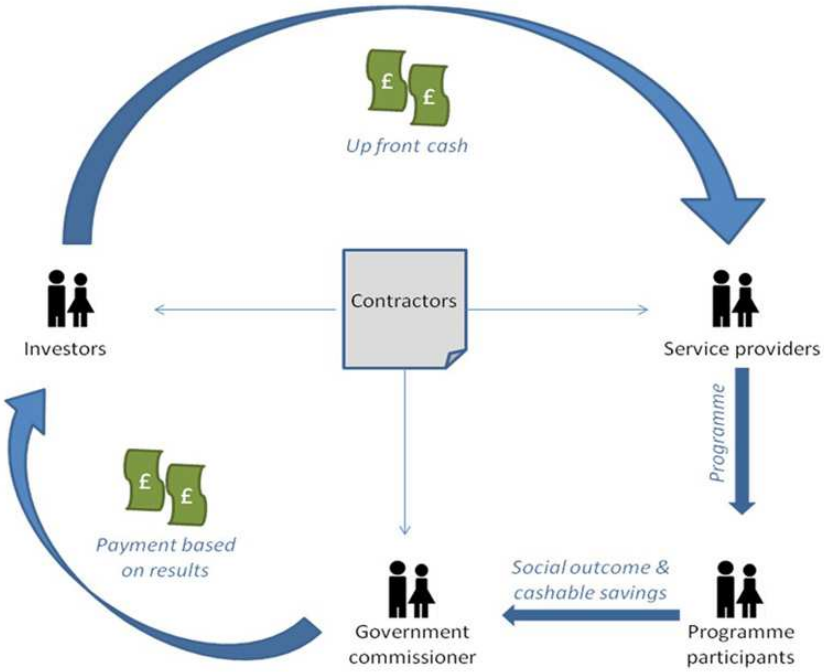
- Permitting government to capture the expertise of charities and social enterprises without exposing either charities or the public purse to inappropriate levels of risk;
- Providing charities with working capital that is required to deliver a payment by results contract; and

[89] ONS. Statistics to March 2004. A locality-based comparison supported this finding for jobs of 16 hours or more but not for all jobs including those of less then 16 hours. However, given the danger of negative selection in Employment Zone areas the overall picture still seems clear. This is not surprising given the heavy emphasis in their bonuses for job retention. *Evaluation of Employment Zones,* National Centre for Social Research, 2003. *The wider market impact of Employment Zones,* DWP, 2003. *A Review of What Works for Clients Aged Over 50,* DWP, 2003.

[90] Given economic conditions from 2011 to 2013 and the focus of Work Programme on 'hardest to help' groups it is a little hard to make confident judgments on success of Work Programme in first two years. However, of 1.41 million individuals have been referred to the Work Programme, around 1 in 6 of all Referrals who had spent sufficient time on the programme to do so, achieved a Job Outcome payment. Two thirds of those were still in employment at the end of September 2013. To date almost 22 thousand claimants have stayed in sustained employment long enough to qualify for the maximum number of Sustainment payments possible on the scheme. To date 219 thousand individuals have returned to Jobcentre Plus after completing 104 weeks on the scheme, with the proportion returning to Jobcentre Plus decreasing for more recent intakes. https://www.gov.uk/government/collections/work-programme-statistics--2 Accessed 22 February 2014.

- Helping investors to make a social as well as a financial return on their investment.[91]

Figure 8.
Cabinet Office's description of Social Impact Bond



How might PBR contracts or SIBs be relevant in the world of large scale redevelopment and estate regeneration ?

As we saw above in Chapter Two, Create Street's research has uncovered a wide range of positive correlations between good social outcomes and conventional streets of houses and flats in comparison to complex large multi-storey buildings. These correlations might be broadly grouped into five main areas: Health, Family, Crime, Community and Economy. These correlations control for socio-economic status though it should also be made clear that some (not all) of the evidence underlying them is fairly old.

Health

1. Residents of lower-rise, more conventional streets are typically happier and happier with where they live
2. Residents of lower-rise, more conventional streets typically suffer from lower levels of stress and mental health issues
3. Levels of suicide would appear to be lower in lower-rise more conventional streets

Family

4. Family relationships appear to be better, marital discord lower and mothers mentally healthier in lower-rise, more conventional streets
5. Children have fewer behavioural problems in lower-rise more conventional streets
6. Children appear to do better at school in lower-rise more conventional streets

Crime

[91] This description is based on that given by the Cabinet Office Centre for Social Impact Bonds. http://data.gov.uk/sib_knowledge_box/knowledge-box Accessed on 22 February 2014.

7. Crime is typically lower in lower-rise more conventional streets with most of the difference being explained by higher levels of crime in semi-private, semi-public spaces
8. Anti-social behaviour (litter, graffiti, vandalism etc) are typically lower in lower-rise more conventional streets

Community

9. Residents of lower-rise more conventional streets appear to know and interact with a high proportion of their neighbours and report a greater sense of community
10. Residents of lower-rise more conventional streets appear to behave more sociably and well to their fellow residents

Economy

11. Well-connected, more walkable streets benefit from higher housing and commercial values. In other words, shops and businesses tend to be more profitable in such areas – with an implication (but not, as yet, a proven correlation of greater job-creation)[92]

How could these correlations be tied to PBR schemes ? What metrics are reliably measurable ? And what metrics fairly straightforwardly correspond to real savings to the public purse thus justifying a payment from the state ?

First of all the good news. Thanks to improving data-management, terminology standardisation and technology an increasing amount of local and comparable data is now readily accessible. So-called Lower Super Output Areas (LSOAs) have been used in the 2001 and 2011 censuses and will be used in the future. They have a minimum size of 1,000 residents and 400 households, but typically average around 1,500 residents. Measures of proximity (i.e. a reasonably compact shape) and social homogeneity (to encourage areas of similar social background) were also used to define them. In short, many map fairly well onto post-war estates or nearby more 'conventionally' designed neighbourhoods. 298 datasets are now available at the LSOA level (though some are only available at ten yearly intervals via the census). Many of these datasets are themselves composed of multiple datapoints at the local level. Very local crime location information is also available from http://www.police.uk Even more data is available at the Middle Super Output Area – typically composed of around 7,200 residents. So the good news is that many relevant datapoints are available. A small sample of potentially relevant data available at the local level is set out in Table 5.

Now the bad news. It is hard to put a short term public sector cost on the social outcomes most clearly correlated with lower-rise conventional streets. Improved health or children doing better at school are clearly good things with good ramifications for society and future employment and innovation. But how do we credibly cost them over a medium time frame without making heroic assumptions? Other important factors (such as reduced mental stress or an improved sense of community or neighbourliness) are, at present, hard to measure at all without dedicated reporting frameworks.

There is relevant data where a short term cost to the exchequer *could* readily be calculated: benefit claimants, employment levels, tax take or family breakup due to its frequent impact on benefits claimed. However many of the correlations with lower-

[92] We recognise that this is not a social good in itself and indeed if uncontrolled could even be a bad thing for original residents who could be priced out. However with appropriate protections for existing tenants higher returns and more profitable local businesses are clearly positives for creating local jobs. There is also some, frankly fairly weak, evidence that 'block-dwellers' are less likely to travel about the city in search for jobs. Schorr A, (1964) *Slums and Social* Insecurity, pp. 28-9. Create Streets intends to commission further research on employment and built form.

rise conventional streets (though strongly implicit as a second order consequence in the existing research) are not fully robust.

Table 5: Sample of data available at Lower or Middle Super Output Area

Area	Dataset	Frequency
Health	People in very good or good health (%)	Census
Family	Children achieving 'Good Level of Development' in Early Years Education[93] (%, % of free school meals)	Annual
	Children's results at Key Stage 1, 2 or 3 [94] (%, % of free school meals)	Annual
	GCSE and equivalent results[95] (%, % of free school meals)	Annual
	Lone Parent Families with dependent children (%)	Census
	Not living in a couple but divorced or separated (%)	Census
Crime	Notifiable offences recorded by the police[96] (#)	Monthly
Economy	Households below 60% median income (%)	Irregular
	Economically active (% of working age adults)	Census
	JSA claimants (%)	Not clear at local level
	Incapacity Benefit / Employment Support Allowance (%)	Not clear at local level
	Number of businesses	Annual

The easiest data to put a cost to and to correlate with lower-rise conventional streets are crime levels. A good range of evidence (though admittedly mainly from the 1970s and 80s when crime was typically higher) convincingly correlates complex multi-storey living with higher levels of crime and anti-social behaviour even when you adjust for socio-economic status. Superficial and not fully controlled comparisons of very recent (December 2013) crime data at local level would support this.[97] Crime is clearly something that can be and has been 'costed' – both to society as a whole and to the public purse For example, recent UK Government analysis set out a range of costs for crimes ranging from £100 for shoplifting to £1.5m for murder.[98] These total costs take account of all conceivable items from lost productivity through to the cost of police investigations, courts and prison. By making a series of reasonable assumptions we have costed crime to the state in London at £97 per person[99].

[93] Defined as pupils scoring 6 points or more across all 7 assessment scales of Personal, Social and Emotional development (PSE) and Communication, Language and Literacy areas of learning (CLL) and scoring 78 or more points across all scales of the EYFSP. At the Middle Super Output Area (MSOA) level this data can be presented just for children receiving free school means. This would be a better metric as some degree of social control built in.
[94] At the Middle Super Output Area (MSOA) level this data can be presented just for children receiving free school means. This would be a better metric as some degree of social control built in.
[95] At the Middle Super Output Area (MSOA) level this data can be presented just for children receiving free school means. This would be a better metric as some degree of social control built in.
[96] This data set is publicly available but does not at present appear to be mapped to LSOAs. This is presumably rectifiable.
[97] For instance, the network of conventional streets to the West of Portland Street in Southwark had 4 crimes in December 2013. The complex estate to the East of Portland Street had 26. The tower blocks to their north had 35. This data, however, has **not** been properly controlled for population or socio-economic status. http://www.police.uk/metropolitan/00AYGW/crime/+IIYVCR/ Accessed February 2014.
[98] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/118042/IOM-phase2-costs-multipliers.pdf Accessed February 2014.
[99] Sinclair M & Taylor C (2008), *The cost of crime,* p.3, p.6, p.12, p.18. HORS217 used to estimate what proportion of costs of crime can be allocated to state (approximately 25 per cent). This was then applied to average cost per person in London (£388).

Typically, PBR schemes should cover a defined area or population. They should measure the impact of a vey clear and unambiguous intervention in the population so the effects of its impact can be easily measured using historical or good comparative data. And the data needs to be available to make these measurements. Clearly these criteria are partly but not fully in place on estate regeneration. We do not thing that at present a Social Impact Bond could be structured to fund estate regeneration. **We therefore propose that a sensible approach would be to attach a pilot Social Impact Bond as an additional 'kicker' to a revolving fund for estate regeneration rather than as the primary source of finance.** This could represent an additional tranche of investment over and above the debt finance. It could perhaps be provided by the match funder or by a separate social investor or even by the commercial developer, if sufficiently broad-minded. The money would be used on design, improved public consultation, research and to meet the additional build costs to ensure that the regenerated neighbourhood was built in such a way as to correlate with good social outcomes. For example, if a SIB 'kicker' were introduced on an estate regeneration for a current population of 4,250, and based on a few high level simplifications and assumptions, Table 6 sets out how additional costs of £12.6m could potentially be 'paid back' over time through improved social outcomes accruing to the public purse.

Table 6: Illustrative example of how SIB 'kicker' might work for estate-regeneration

Item	Cost or volume
Adult population of an estate (indicative)	4,250
Child population	1,062 (London average, 24.5%)
JSA cost (per person, per year)	£3,744 (standard single >25 rate)
Lone Parent JSA (per person, per year)	£3,744
Improved tax & NI take (per person per year)	£1,500[100]
Improved business rate	£2,000
Cost to state of recorded crime in London per person per year	£97
NPV to state of child going to university[101]	£64,000
Improvements in social outcome modelled on lower-rise more conventional streets	1% (benefits & jobs) 2% (education) 5% (crime)
Annual benefit saved (JSA)	£79,600
Annual benefit saved (Lone Parent)	£79,600
Annual crime reduction	£25,800
Annual income & NI tax take	£31,900
Annual business rates	£120,000
Net Present value of education improvements	£1,370,000
Net Present value of all other improvements	£11,270,000
Total	**£12,640,000**

[100] Assumes additional £4,500 of taxable income per year

[101] This is based on US research which has calculated a present value of a university degree at $280,00. Converting to sterling and assuming that 33% of this is taken in taxes equates to £64,000. Clearly this does not take account of increased productivity in the economy or other more marginal improvements in education outcome (better GCSEs or A levels for example or even just a better experience at school). http://www.aei.org/article/education/higher-education/how-much-is-that-bachelors-degree-really-worth/ Accessed February 2014.

This analysis is very high level and does not pretend to be anything other than illustrative. We have had to make very material assumptions about what percentage improvements might be possible which can only be imperfectly referenced back to analysis and correlations conducted in many different types of place and country over many years. Nor were all the necessary variables available. That said based on the strong corpus of evidence that people are happier and do better in more conventional streets and that crime is much lower assumptions of 1 per cent, 2 per cent and 5 per cent improvements in employment, education and crime outcomes do not seem aggressively unconservative. We have at present not even tried to take account of savings to the state through improved mental health due to a lack of data.

Table 7: Comparison of modelled improvements with some controlled studies

Area of impact	**Modelled improvement for pilot SIB**	**Examples of variance in studies controlled for socio-economic status & other factors[102]**
Children doing better at school	2% more children going to university	▪ 2% vs. 62% of mothers reporting issues with 'play, health or personalities of children' in house vs. above 6th floor
Less crime	5% reduction in crime	▪ 604% more crime in semi-private space of high vs. low rise estates ▪ Vandalism on 39% of high rise estates vs. 1.9% of houses
Improved employment & local business outcomes	1% improvement	▪ 80% more sales achieved in areas of high vs. low walkability

Based on this and in order to focus **housing providers on studying and understanding the long term consequences of the housing they build, we are therefore advocating a pilot Social Impact Bond 'kicker' with payments linked to good social outcomes.** Given its pilot nature it may need to be partly seed funded by the Government. And clearly metrics of success will need to be expressed in comparison to local averages or controlled for wider trends. (i.e. no payment for crime going down if crime goes down everywhere). In practice the money would be used on design, improved and real public consultation, research and to meet the additional build costs to ensure that the regenerated neighbourhood was built in such a way as to correlate with good social outcomes.

[102] Boys Smith, N. & Morton, A. (2013) *Create Streets*, pp. 31-39 and pp. 56-7.

Conclusion

Nothing in life is too good to be true. We do not pretend that improving the process and outcome of regeneration is easy. Changing rules in the London Plan is complex. And there is a risk to the Exchequer if development is badly managed or executed. In a way that is the point. The Government is taking some of the risk of long term regeneration. But done well, we estimate we could provide an additional 250,000 homes in London, at no accountable cost to the Treasury whilst also helping build new, more socially mixed, neighbourhoods in London along the lines of the most popular and valuable. London property risks becoming too expensive to its own good or for the good of the British economy. Surely a massive increase of supply of good normal housing that real people want to live is an idea worth pursuing?