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THE CASE FOR ESTATE INFILL:

ESTABLISHING A TOOL KIT FOR
INFILL DEVELOPMENT ON
POST-WAR MID TO HIGH RISE ESTATES
TO IMPROVE OPEN SPACE
AND THE RELATIONSHIP WITH THE WIDER STREET

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Establishing a tool kit for infill development on post-war mid to high rise estates to improve open space and the relationship with the wider street.

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Being a Major Project in MSc Urban Design and City Planning submitted to the faculty of The Built Environment as part of the requirements for the award of the MSc Urban Design and City Planning at University College London,
I declare that this project is entirely my own work and that ideas, data and images, as well as direct quotations, drawn from elsewhere are identified and referenced.

Louisa Facchino-Stack

2nd September 2019

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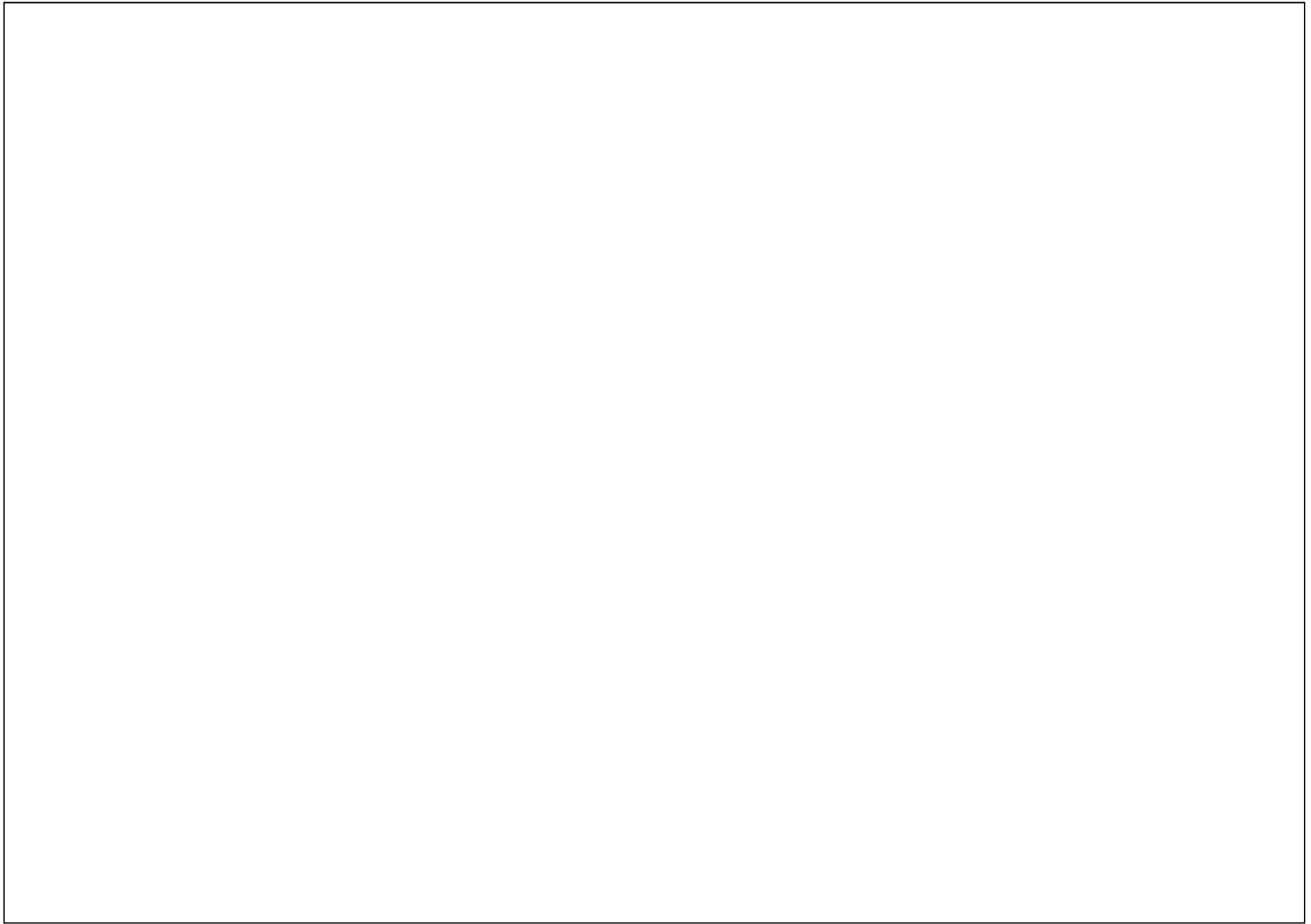
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ABSTRACT

After decades of cessation in council house building and depleting stock numbers, local authorities have recently been given the means to start building again to meet the UK housing shortage. Low density council owned estates, in particular post-war mid to high-rise estates, present an obvious opportunity to deliver estate intensification through infill development. Infill development, however, should benefit existing residents by addressing major problems, such as poor-quality open space and the tenuous relationship with the street. This study proposes a tool kit to guide infill development on post-war, mid to high-rise estates in an attempt to address these aforementioned major problems through infill development.

The tool kit incorporates principles brought to light in a literature review of council estate regeneration theories and infill development case studies on post-war, mid to high-rise estates. The tool kit's effectiveness in improving open space and the relationship with the street through infill development is evaluated through a design response on the Home Park Estate in Lewisham. The study concludes that infill development implemented in accordance with the tool kit would produce higher quality, more useful open space and strengthen the relationships that estates have with the wider street to produce safer and more cohesive streets. Further research is needed to determine resident's aspirations for infill development and to determine the financial viability of infill.





1. INTRODUCTION

INTRODUCTION

The UK is currently in the midst of a "housing crisis", where high rental and property prices result in many people living in unsuitable conditions; the effects of this phenomenon are intensified in London (GLA, 2017). Understanding the origin of this crisis is complex owing to its deeply political and economic nature (Edwards, 2016) and lies beyond the scope of this project. Importantly, however, we find ourselves in a situation where housing demand has outstripped market supply.

Since the 1980s, councils have been restricted by central government in their ability to borrow funds, preventing local authorities from delivering council housing schemes, however in 2018 the Housing Revenue Account (HRA) borrowing cap was lifted to allow local authorities to build housing. The Government expects that 20,000 council housing units will be delivered over 6 years (Office for Budget Responsibility, 2018, p. 50).

London's land prices are expensive and local authorities face funding shortages in a political climate of austerity. Councils are looking towards their own assets, such as existing estates, to deliver council housing and generate income. However, many council estates have mixed ownership as a result of the Right to Buy policy introduced in the 1980s. This makes estate redevelopment schemes expensive and complicated, as councils have to re-purchase properties at market rates, and as such the amount of affordable housing delivered on regenerated estates is often reduced (Future of London, 2016; Lees, 2014).

Assessing the redevelopment of council estates from a purely fiscal standpoint would be a grave oversight as regeneration is socially disruptive to residents who live on estates (Boughton, 2018; Edwards, 2016; Lees and Ferreri, 2016). Infill development on council estates therefore presents an economically viable and time-efficient opportunity for local authorities to deliver much needed housing. However, in order to be socially just, it is important that infill development improves estates for existing residents.

The project looks at how problems on post-war estates are exacerbated by their design and socio-economic context, specifically in regard to the poor quality, unsafe and underutilised open space and the poor relationship of estates to the wider street context. The project looks specifically at mid to high-rise estates, as such estates present a compelling opportunity to deliver infill development in a way that 'fixes' the faults in their original design to improve estates for existing residents.

Some local authorities in London have begun to look towards estate infill projects. It is clear from the literature, however, that there is no such framework as to how infill should be implemented on estates. The project, therefore, draws on key principles from existing council estate regeneration literature and also from estate infill case studies to inform the development of a tool kit that can be applied to estate infill schemes to ensure they improve the open space configuration on estates and the relationship that estates have with the street environment.

The project then applies these principles to a study site: the Home Park Estate in Lewisham, a post-war, mid to high-rise estate, which suffers from a number of problems including the under-use of open space and a poor relationship to the existing street context. The site was chosen because of its manageable size and the opportunity that it presents in amending these key problems to explore the research questions in a design response.

RESEARCH QUESTION

Q1. How can infill development on council estates address design faults to improve open space and the relationship that estates have with the wider street?

OBJECTIVES

OBJ1. Explore the problems associated with post-war, mid to high-rise housing estates

OBJ2. Establish principles that infill development should follow in order to improve the quality and utility of open space and the relationship of the estate to the street

OBJ3. Develop a tool kit based on the above principles

OBJ4. Develop a design response on the Home Park estate which utilises the tool kit

OBJ5. Critically analyse the project findings and evaluate the tool kit

METHODOLOGY

OBJ1.	Research Method	Evaluation
OBJ2.	<p>Review primary and secondary literature to establish the problems that mid to high-rise post-war estates suffer from and the explanations for the causes of these problems.</p> <p>Review estate regeneration literature to establish key principles that can apply to estate infill development.</p> <p>Evaluate infill development case studies to establish ways in which infill development has been implemented on the estate to improve the open space and the relationship with the street.</p>	<p>✓ Establishes academic consensus. Looks critically at established literature.</p> <p>✗ Due to the time limitations of this project it is not possible to establish the socio-economic causes of problems in depth.</p> <p>✓ Looks critically at established literature. Pulls together key principles which apply to infill development.</p> <p>✗ Due to the nature of the topic, much of the council estate regeneration literature is written by non-academic sources. Estate infill schemes are a new phenomenon, and therefore three of the four case studies evaluated are permissioned but not built; assumptions have to be made about their success.</p>
OBJ3.	<p>Apply key principles that are seen as successful in the literature and case studies to an infill development tool kit.</p>	<p>✓ Consensus in the literature and the successes of the case studies are used to inform the key principles.</p> <p>✗ The tool kit has been informed by the limited literature and unpermissioned case studies, and therefore presents a starting point in establishing how infill development should be implemented. Future studies should build on this.</p>
OBJ4.	<p>Evaluate the site to establish the local context and problems which infill development should seek to alleviate.</p> <p>Look at previous consultation responses to a development proposal on the site to establish resident's wishes.</p> <p>Apply the tool kit to establish infill development on the site.</p> <p>Establish limitations of the tool kit by evaluating the site's design.</p>	<p>✓ Design of the site conforms to the tool kit and therefore is informed by successes in the available literature and case studies. Design of the site takes into account the surrounding context and could be used to inform development proposals. Use of secondary, publicly-accessible, anonymous consultation data minimises ethical risk.</p> <p>✗ Due to the time limitations of the project, residents are not interviewed to establish their wishes to inform the design.</p>
OBJ5.	<p>Critically evaluate the findings from the design response and the project.</p>	<p>✓ Looks critically at the application of the tool kit and the design response. Justifies the originality and contribution of the project. Suggests further research.</p>



2. LITERATURE REVIEW

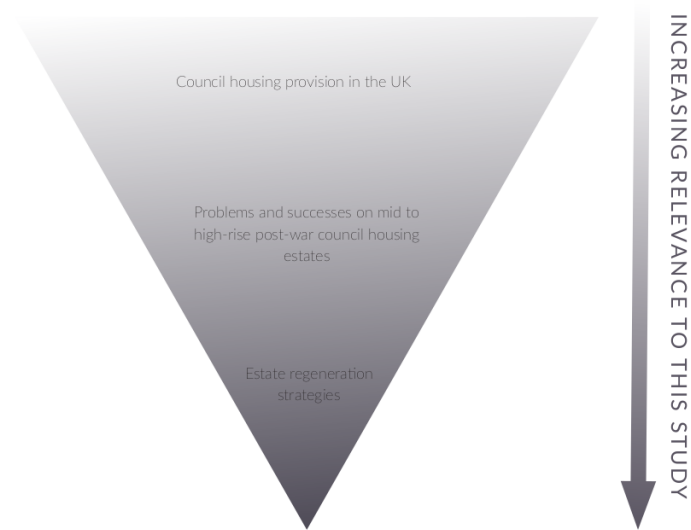


INTRODUCTION

The following literature review explores, firstly the history of council housing provision in the UK to provide an introduction to the topic and set the scene for the importance of council housing in the provision of affordable dwellings. The literature review will then examine the problems which many mid to high-rise post-war council houses in the UK suffer from in order to fully understand the design faults which can be amended by infill development. The literature review will then turn to looking at council estate regeneration strategies and the critiques that these have received from academics. It is important to note that as infill development on council estates is a relatively unexplored concept academically, the non-academic publications hold weight and are worth critically examining in order to draw out general principles which infill development should incorporate. Successful principles in improving open space and the relationship with the street are incorporated into a tool kit for infill development. The table in Appendix 1 details how the literature review was utilised in selecting these principles.

OBJ1. Explore the problems associated with post-war, mid to high-rise housing estates

OBJ2. Establish principles that infill development should follow in order to improve the quality and utility of open space and the relationship of the estate to the street



UK COUNCIL HOUSING PROVISION

Fig 1: St Martin's Cottages, Liverpool, 1869



Pre WWI

Housing was supplied largely by private housing providers. Some tenement blocks were built by councils to replace slums.

Fig 3: Becontree, completed in 1935



Inter-war years

The 1919 Act gave powers and subsidies to local authorities to provide housing. The London County Council and the Greater London Council delivered large amounts of public housing (Garside, 1988, p.30). Low density, suburban estates comprised of three bedroom houses, with bathrooms, kitchens and private gardens. Scholars agree that the houses provided good quality housing (Hollow, 2011, p.203-4; Olechowicz, 1997 p. 13). However, Olechowicz (1997) argues that lifestyles suffered as a result of a lack of local jobs, long commutes and a loss of community.

Fig 5



Forshaw and Abercrombie's County of London Plan (1943) planned for council housing on a large scale with an egalitarian purpose to provide homes for all.

Fig 6: Park Hill, Sheffield, completed in 1961



The Housing Subsidy Act of 1956, allocated funding to slum clearance projects of more than six storeys high. High-rise flats were seen to provide a high-density solution, a concept that has been recently contested (Ellis, 2004, p.36; Barnes, 2015), and were initially marketed for their modern facilities (Boughton, 2018, p.95).



Fig 2: Caesar Street, London



WWI

Inner city bomb damage resulted in an acute housing shortage (Olechowicz, 1997, p. 12).

The Housing Act of 1930 lay the foundations for inner city council housing, which replaced slums (Burnett, 1986, p. 243).

Fig 4: Bomb damage, Croydon



WWII

Housebuilding was again interrupted with WWII, which resulted in extensive bomb damage to inner city housing causing a housing shortage. A 1945 Coalition White Paper estimate that 750,000 new homes were needed across the UK along with another 500,000 to replace bomb damaged properties (Boughton, 2018).

In 1953 318,000 homes were built nationwide: 229,000, (72%), were council homes (Boughton, 2018, p.105).

Fig 8



Right to Buy

The 1980 Right to Buy policy forced local authorities to sell council houses at substantial discounts to tenants. The policy was popular with one third of council tenants having purchased their houses as of 2016 (Murie, 2016, p.5). Consensus amongst academia argues that the policy forms part of the explanation for a housing crisis, as council housing has been substantially diminished (Murie, 2016; Boughton, 2018).

Housing Crisis

London needs 65,000 new homes per year to meet the capital's housing need. In 2016/17 there were 40,530 net new housing completions in London, which is the highest delivery since data was first recorded in 2004/05 (GLA, 2017).

Slum clearance was still a priority up to the 1960s.



Fig 7: Ronan Point, built in 1968 collapsed 2 months later

Council House Building

Public housing delivery was driven largely by quantity demands, rather than quality and was largely inspired by the modernist movement. Open space provision in post-war housing followed the idea that towers would leave more space for parklands, however lack of public funding resulted in poor quality parklands. The Parker Morris standards introduced in 1961 raised physical standards, requiring larger dwellings and central heating (Goodchild and Furbey, 1986). Despite this, scholars have argued that underfunding plagued council housing in this period; as noted by Taylor (1979), many of the flats built just 10 years earlier had become hard to live in and hard to let.

In 1980 local authority owned housing peaked at 32% of the total dwelling stock in the UK (GLA, 2017).

By 2001 council housing made up just 13% (ONS, n.d).

In 2017 council housing made up just 6.5% (ONS, n.d).

The Housing Revenue Account (HRA) borrowing cap was lifted to allow local authorities to build houses. Centre for London are optimistic about the delivery of council homes, with 23,600 expected to be delivered over the next 5 years (Centre for London, 2018). Many new council housing schemes are considered successful with recently built King Crescent Estate in Hackney winning the RIBA national award in 2018.

PROBLEMS ON POST-WAR COUNCIL ESTATES



The Estate Regeneration National Strategy (DCLG, 2016) argues that estates need regeneration as they suffer from numerous problems:

'poor quality housing ...large areas of underutilised and degraded open space... inward looking and... disconnected from their surroundings.' (DCLG, 2016, p.2)

The following review will look to substantiate these claims looking at the impact of design and social factors in the creation of problems in post-war, mid to high-rise estates.

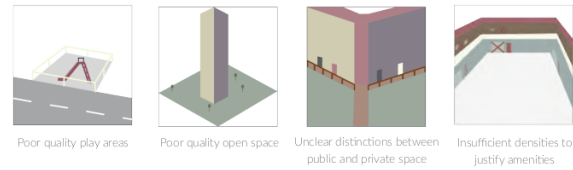
'Poor quality housing'

Inextricably linked with post-war housing estates is Le Corbusier, whose vision for the city was to concentrate populations in high rise and slab blocks to reduce land congestion, resulting in set-back blocks in 'parklands' used for recreation. Designing the city in this way, Corbusier argued, improved courtyard flats, which suffered from a lack of sunlight and open space and departed from the wastefulness of detached dwellings (Fester Marmot, 1978, p.85).

Taylor (1979) argues that the council houses built according to Corbusien principles in the 60s and 70s were 'difficult to let' and 'difficult to live in'. He cites two reasons for this: the large, industrialised, unit construction, which produced poor quality housing, and the incorporation of the 'modern movement' in their design. Taylor's argument, however, is overly reliant on the impact of design. Housing was built on a mass scale with a lack of financial resources, resulting in many of the Corbusien principles being 'watered down' Fester Marmot (1978). Despite this, much of the housing in this period was spacious and provided high quality facilities in comparison to much of the private housing delivered from the 80s onwards (Goodchild and Furbey, 1986).



Fig 9: Hutchesontown C, Gorbals, Glasgow. Designed by Basil Spence, the development was inspired by Le Corbusier's masonette blocks in Marseilles, however failed to include any play space or facilities for children. The estate suffered from many other problems, including damp and infestation and was subsequently demolished in 1993.



'Large areas of underutilised and degraded open space'

Towers (2000, p.61) argues that the quality of open space in many post-war council estates is poor, consisting of at best 'open, windswept grassed space dotted with a few trees' and at worst 'a bleak expanse of hard paving.'

Towers (2000, p.43) has argued that although council estates were built on idealistic principles, council housing projects faced the 'reality of funding', which resulted in the quality of the public environment being 'downgraded and the amenities reduced to a minimum.'

Open spaces on estates also suffer from being encroached on by vehicular parking. Ravetz (1980) argues that improved car access on estates has resulted in poorer access for pedestrians. Haughton and Hunter (2004, p.106) have argued that the dominance of the car on estates not only makes walking and cycling more difficult, but 'undermines the creative use of urban space.' They also argue that it makes the public spaces within estates dangerous for playing children.

The poor quality of open space is evident in a number of post-war high and mid-rise housing estates, as demonstrated in the following schemes (right).



Fig 11: Raystonhill, Glasgow (now demolished). Poor quality open space.



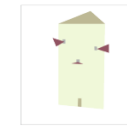
Fig 12: Pepys Estate, Lewisham, completed in 1973. Image shows the unclear distinction between public and semi-private space.



Fig 13: Playground on the Evelyn Estate, completed in the early 1970s. Image shows a small playground at the foot of a tower in a road dominated environment.



Fig 14: Reynolds House, Aston, built in 1966. Image shows open space at the foot of the tower, unsuitable as amenity space due to its lack of landscaping and proximity to a highway.



High no. storeys



Raised walkways

'Inward looking'

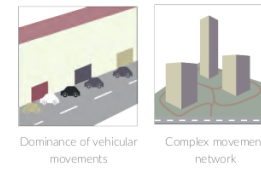
The problems on post-war estates were famously the subject of the influential study *Utopia on Trial* (Coleman, 1985), which argued that council estates suffer from 'social malaise', manifesting as litter, graffiti and vandalism. She correlated the problems with design features such as number of storeys and the presence of raised walkways, which result in a lack of natural surveillance at ground floor level. Raised walkways have also been criticised by Ravetz (2001, p. 198) who argued that streets in the sky reduce footfall on the street leaving ground level shops and car parks 'abandoned to wreckers.' Coleman's criticism of raised walkways resulted in a shift in national policy resulting in the removal of many existing walkways.

Despite its influence, Coleman's work is highly controversial, receiving criticism for ignoring complex social factors, including the often underfunded management and maintenance (Spicker, 1987).

It is hard, however, to refute completely Coleman's conclusions given that the 'eyes on the street' principle for reducing crime is the mainstay of Jane Jacobs revered work, which has been adopted as a core principle of gold-standard urbanism. Further, Jacobs and Lees (2013) have revisited Coleman's work arguing that it brought to the fore the idea of 'defensible space' in a British social housing context. Defensible space was coined by Newman (1970), as the idea that if residents feel a sense of ownership over external spaces they will take care of the spaces and as such crime will be reduced as criminals sense a watchful community.



Fig 10: Walkways on the Broadwater Farm Estate, London, completed in the 1970s. High crime rates were seen in the areas beneath the walkways, as a result of the lack of overlooking and poor lighting. Many of the raised walkways have since been demolished, and along with other influencing social factors, crime rates have improved on the estate.



'Disconnected from their surroundings'

The street network on post-war council estates has been criticised by Satchwell and Cowan (2017) who argue that often streets in post-war estates do not follow existing street patterns, and as a consequence tend not to have positive effects at the street level. Hanley (2007) argues that streets in post-war estates are often 'warren-like'.

"Completing London's Streets" published by Savills (2016) also argues that post-war estate streets are problematic, citing a survey of industry 'experts' who state that people prefer living in traditional street patterns. The report also looks at how 'locational value', recognised by estate agents as a driver of property price and sales rate, is influenced by traditional street networks that are highly permeable. They state that estates regenerated to their 'complete streets' model have the potential to increase the locational value of an area. This more convincing evidence shows how reintroducing street networks into estates improves not only the estate itself, but also how streets (and the lack of street networks) contribute to the overall neighbourhood.



Fig 15: Thamesmead Estate completed in 1968. Image shows a poor relationship to the street.



Fig 16: Haygate Estate. Image shows a poor relationship to the street.

The debate surrounding these problems

It is important to note that the above design features and resultant problems do not plague all post-war council estates. Research by Power (2018) has found that the majority of residents liked being social housing tenants, as well as their local community.

It is also pertinent to exercise caution when directly linking design features to problems in order to avoid being environmentally deterministic.

Another school of thought argues that problems on post-war estates originate in social factors: Boughton (2018, p.106-7) and Jones (2010, p. 510) argue that from 1954 onwards the philosophy of council housing concentrated on being a safety net for the poorest rather than serving needs more generally. Gray (1976) and Jones (2010) note that tenants were allocated different qualities of council housing based on qualitative assessments of their 'suitability'. 'Lower grade tenants', deemed as those with a history of anti-social problems, were allocated to the lesser quality housing, and 'higher-grade families' to the better-quality housing. Boughton (2018, p.107) argues that this led to residents being seen as 'second-rate' and Jones (2010) argued this had 'potentially hugely significant' implications for 'social-spatial polarisation and working-class fragmentation'. Ravetz (2001) notes a consequence of this was the separation of estates from the wider streets ('ghettoisation') reinforced by single-class schooling and healthcare and a deprivation of shops.

There are many examples of mid to high-rise post-war council housing estates that have successful outdoor spaces and do respond well to the wider street environment. Examples of these are shown in the images to the right.



Fig 17: Successful outdoor space in the Barbican Estate.



Fig 19: Successful outdoor space in the Alexandra Road Estate.

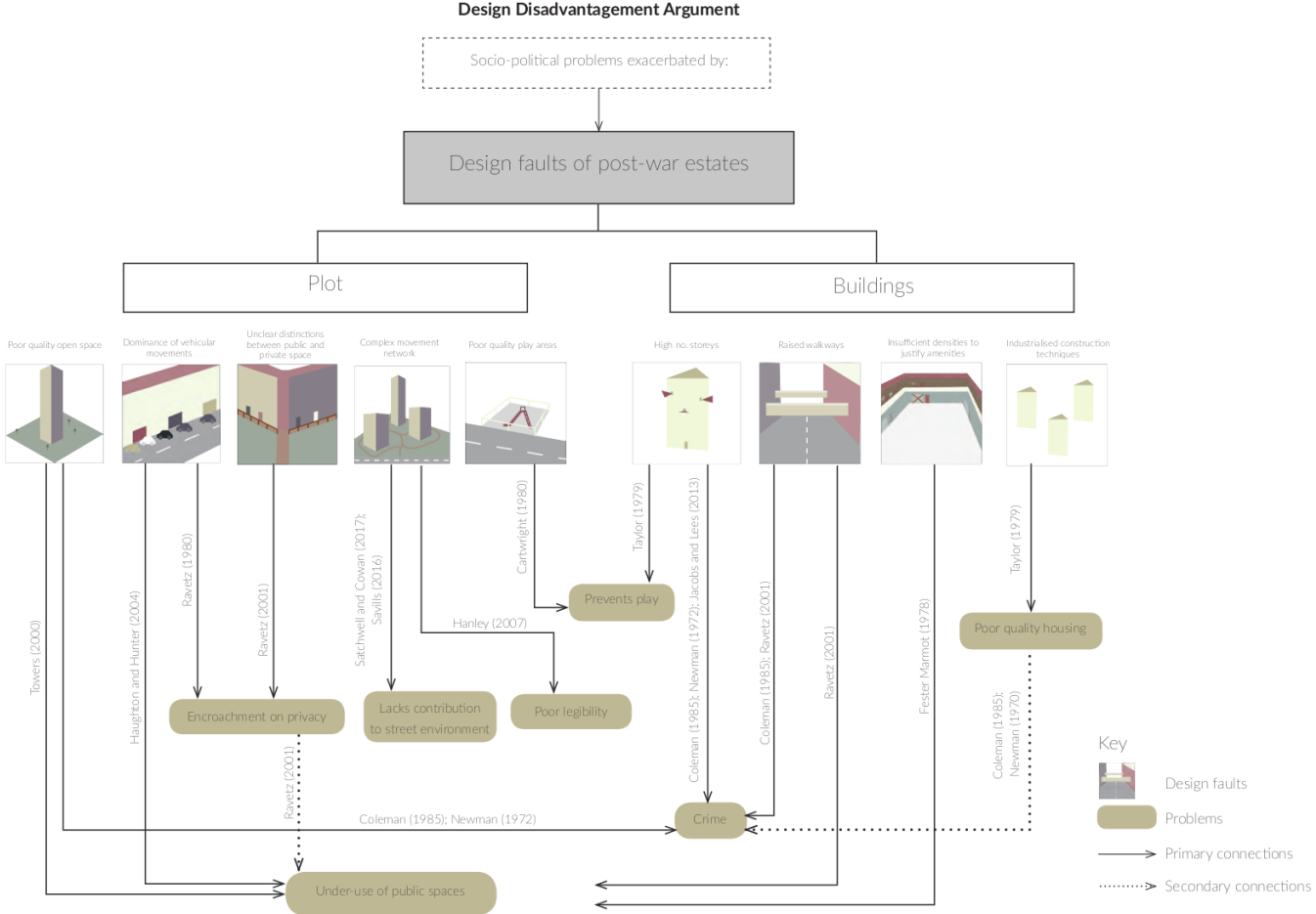


Fig 18: The active frontages of Crescent House ensure a good relationship with the wider street.



Fig 20: The active frontages of The Brunswick Centre ensure a good relationship with the wider street.

SUMMARY



COUNCIL ESTATE REGENERATION

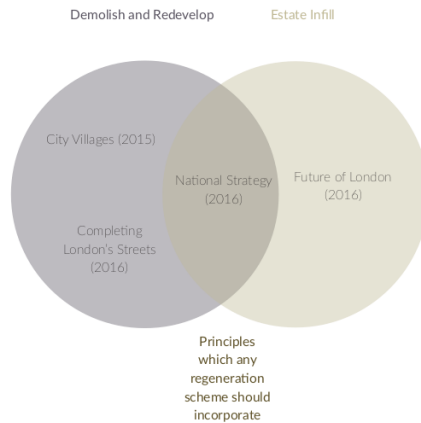


Illustration of the three regeneration categories which the literature conforms to.

Demolition and Redevelopment of Council Estates

A number of studies argue that the demolition and redevelopment of council estates would significantly contribute to additional housing (IPPR, 2015; Savills, 2016). Both the IPPR and Savills suggest that a 'city village' approach to estate regeneration should be taken, which entails the demolition of council estates to rebuild 'traditional' streetscapes consisting of low and mid-rise terraced houses and mansion blocks. The IPPR also suggest retaining some existing towers to increase density. The ideology is based on studies that demonstrate a dislike for living in tall buildings, preferring to live in houses or apartments with a smaller number of units. The IPPR, however, suggest that such schemes can only be successful if local authorities maintain ownership of estates.

Challenges of demolition

Boughton (2018, p.270) critiques the city village argument stating that the 'sweeping vision' would result in 'life-changing, sometimes life-threatening, disruption.' Boughton (2018) goes as far as to suggest that the idea is a form of 'brusque social engineering.'

Watt (2013) also critiques the demolition and redevelopment of estates for accelerating gentrification, referring to a "state-induced rent gap" when housing stock is sold to developers who create new market dwellings. Edwards (2016, p.233) argues that such a process is 'socially disruptive' as it is often undertaken 'without adequate consultation' and involves 'disruption and some degree of dispersal of established communities.' Lees and Ferreri (2016) also argue that the demolition of social housing schemes in inner London has led to a 'social cleansing' of low-income tenants and is a form of state-led gentrification.

Lees (2014) cites a number of examples of the demolition and rebuilding of estates as new mixed communities, where the majority of the homes (75% in the case of the Haygate Estate in Southwark) are proposed for private sale, rather than for existing estate tenants who were forced to move outside the local district.

Demolition schemes also face problems in relation to land and property ownership. Future of London (2016) argue that the "pepper-potting" of Right to Buy properties in council estates makes some redevelopment schemes un-viable as a result of high buy-back prices.

Infill Development on Council Estates

Future of London (2016) instead suggest that infill development on council estates can deliver homes and contribute to the success of place by developing areas between buildings and along the edges of estates, or by converting ancillary buildings. The paper states that it is an easier, cheaper and quicker solution, and can bring about

estate wide improvements. The paper does not suggest overarching principles to which infill development should follow, merely suggesting that infill development warrants attention by planning authorities.

Altered Estates (2016) also argue that in some cases infill development is the appropriate solution to deliver additional housing and improvements to the public realm on estates. The paper suggests a small number of design principles which should guide estate regeneration, summarised in **Table 1**.

Challenges of infill

Altered Estates (2016) and Future of London (2016) both argue that in many cases infill development can be a successful solution to delivering more and improved homes on existing estates. They do however, both acknowledge that infill schemes can sometimes be a short-term pragmatic solution that prevents implementation of a comprehensive redevelopment scheme in the future.

Strategic Estate Regeneration

The Estate Regeneration National Strategy (DCLG, 2016) proposes the regeneration of low-density estates in inner cities to provide net additional homes. It is a strategic document which could apply to both demolition and infill schemes. It suggests a number of principles to which any regeneration scheme should incorporate. The strategy is too generic to be directly helpful in guiding purely infill regeneration, however a number of the design principles could be applied.

Table 1 pulls out the key design principles that are considered in the above strategies.

SUMMARY

Design principle	Strategy
Streets and Movement	
Movement patterns should be 'connected and permeable' allowing connection to the wider area	DCLG, Savills, HTA et al
Simple street layouts make way-finding easier and are attractive to visitors	Savills, IPPR
Streets should be flexible in order to adapt to future change	Savills
Public realm design should adopt inclusive design principles to ensure it is used by everyone	DCLG
Regeneration should promote walkable neighbourhoods with access to local facilities and public transport	DCLG, Savills
Streets should be mixed use, where appropriate, including retail commercial and civic uses	Savills
Avoid domination of the street scene and public realm by parked cars	HTA et al
Development should restore historic street patterns to increase permeability	Savills
Safety and Security	
Entrances and windows should face the street to provide natural surveillance	Savills
Streets should be well-lit	DCLG
Buildings should have clear front and backs	DCLG
Open Space	
Public space should be well-defined and useable, including communal gardens and public squares	Savills, HTA et al
Developments should accommodate public and private amenity space	DCLG, Savills
Open space should be designed to be low maintenance to ensure spaces are well-maintained and managed	Savills
Open spaces should provide amenity use for a range of users	DCLG
To ensure the safety and convenience of play spaces for children they should be in close proximity to homes	DCLG, Savills
Public, private and shared spaces should be well defined	HTA et al
Character and Placemaking	
Neighbourhood identity should be reinforced in new development	DCLG
A variety and interest in appearance should be created, especially in large scale development	DCLG
Avoid creating instant diversity through a diverse range of architectural styles and materials	HTA et al
A variety of neighbourhood facilities and activities should be located on main streets/ neighbourhood centres	Savills, Future of London
Community facilities should be located at the interface with the surrounding area	HTA et al
Integrate sites into the existing fabric	Future of London, HTA et al

Table 1: Design principles relating to the public realm as considered in strategies related to estate regeneration.

CONCLUSION

This section has furthered an understanding of council housing provision in the UK, and the more specific issues related to post-war mid to high-rise estates. An examination of estate regeneration strategies concludes that infill development can often be less disruptive to residents than demolition schemes. Principles brought to light in a review of estate regeneration strategies will be incorporated in a tool kit for infill development. The following review of case studies will build on the principles in this section in order to formulate a tool kit.



3. CASE STUDY REVIEW

INTRODUCTION

The four case studies chosen for review were selected as they detail infill schemes on post-war mid to high rise estates which involve no, or minimal, demolition. Such schemes are scarce and thus permissioned schemes are also included in the review. The schemes are analysed for their successes and expected successes in terms of improvements to open space and the relationship with the wider street. Successful aspects of these schemes are incorporated into the tool kit along with the principles extracted from the literature review.

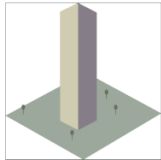
OBJ2. Establish principles that infill development should follow in order to improve the quality and utility of open space and the relationship of the estate to the street



KING SQUARE ESTATE, ISLINGTON

POLLARD THOMAS EDWARDS (2014)

Estate Problems



Poor quality open space



Dominance of vehicular movements



Complex movement network

Scope of Redevelopment



Fig 25: Development masterplan showing infill development in red.



Fig 26: View showing new infill block which defines the corners of the estate and contributes to the streetscene.



Fig 27: New infill block including a new community centre, built on the site of a car park.



+280 HOMES



71% AFFORDABLE



30% 1 BED
61% 2 BED
9% 3 BED

ANALYSIS

Open spaces and relationship with street

Creating street frontages with development improves the relationship to the street.

Fences should be used in unambiguous ways to clearly define public and private space.

Small areas of amenity space can provide useful open space.

Community ideas for open spaces should be incorporated into plans to ensure utility.

Infill development

Low density garages and car parks can provide space for infill development.

Using buildings to create open space courtyards can increase the privacy and the usefulness of open spaces.

Corner and street facing blocks improve the relationship of the estate with the street.

Estate Improvements



Fig 28: Open space improvement plan.



Fig 29: New park and MUGA.



Fig 30: New landscaped area with existing tower and infill development.



Fig 31: Community growing garden implemented as a result of consultation.



Fig 32: The entry points to the infill block overlook the street.



Fig 33: Public and private space is clearly defined.



Fig 34: Private courtyard garden to the rear of infill development.



Fig 39: New school and street improvements, funded by the infill.



Fig 35: Block named after the first female Mayor of Finsbury, as voted for by residents.



Fig 36: Named after one of the original architects of the estate.



Fig 37: Improved refuse storage with accessible chute.

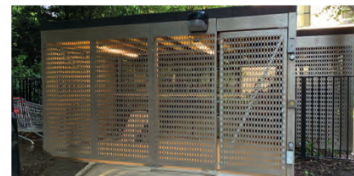


Fig 38: Safe bicycle storage.



Fig 40: Upgrades to the playground, funded by infill.

THE TRIANGLE ESTATE, ISLINGTON ISLINGTON ARCHITECTS (2016)

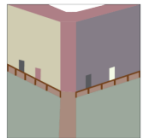
Estate Problems



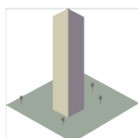
Raised walkways



Dominance of vehicular movements



Unclear distinctions between public and private space



Poor quality open space



Complex movement network

Scope of Redevelopment

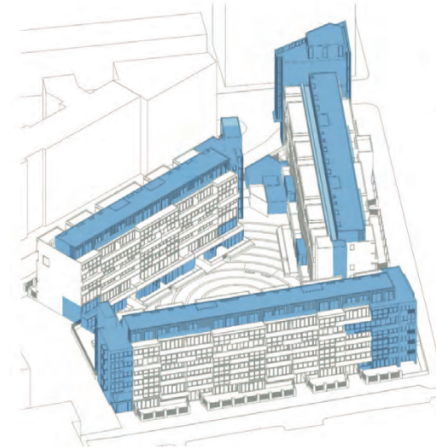


Fig 41: New infill development shown in blue.

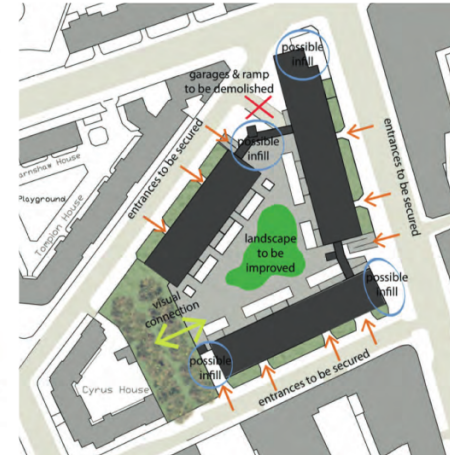


Fig 42: Concept plan for redevelopment, showing infill, landscaping and security improvements.



+49
HOMES



50%
AFFORDABLE



49% 1 BED
29% 2 BED
20% 3 BED
2% 4 BED

ANALYSIS

Open spaces and relationship with street

Reducing the amount of entry points into the blocks and securing entrances to improve the security of the estate.

Removing walkways between buildings to improve vitality at ground floor level and alleviate security concerns.

Introducing soft landscaping to improve the utility of open space.

The identity of the block is retained in the new development retaining the triangular shape and in the proposed use of materials.

Infill development

Ground-floor garages can provide space for infill development units. Cycle parking provided to compensate for lost vehicular parking.

If existing buildings are structurally sound, infill development can be accommodated as penthouses.

Adding corner blocks may help to improve the relationship to the street.

Units with private gardens at ground floor level can better accommodate families.

Estate Improvements

Relationship to street



Fig 43: Security problems are exacerbated by the blank end wall, which does not overlook the street.



Fig 45: Security problems as a result of the public access, basement garages and the raised walkways.



Fig 44: The eight-storey infill tower overlooks the street. It also provides active frontages at ground floor level and improves the estate's relationship with the street.



Fig 46: Fob access security gates provide access to the estate. Ground floor dwellings with private gardens will replace the basement garages. Raised walkways are removed.

Amenity Space



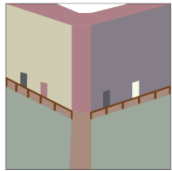
Fig 47: The existing podium is an area of hard-paved amenity space. Below the podium is garage space for cars.



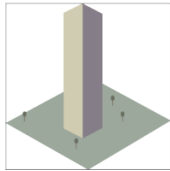
Fig 48: The podium is removed and replaced with a landscaped courtyard garden incorporating a growing area.

JUBILEE STREET, TOWER HAMLETS
 BELL PHILLIPS ARCHITECTS (2016A)

Estate Problems



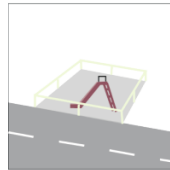
Unclear distinctions between public and private space



Poor quality open space



Complex movement network



Poor quality play areas

ANALYSIS

Open spaces and relationship with street

Upgrading equipment can improve play spaces.

Reducing car parking space can decrease the feeling of vehicular dominance

Entrances located onto main streets to improve street vitality

Use of fencing to signal boundary definition.

Scope of Redevelopment



Fig 49: Proposed infill development block built on a car park.

Improvements to Public Realm



Existing

Fig 50: The car park (right), which suffers from anti-social behaviour problems and existing amenity space, which lacks privacy and safety.



Proposed

Fig 51: Proposed additional play equipment funded by infill.

Infill development

Underused car parks can provide space for infill.

Locating the blocks in a way that reduces the vehicular dominance of main roads can improve the safety and amenity of open space.

Balconies overlook the park space to increase safety.



+24 HOMES



100% AFFORDABLE



21% 1 BED
33% 2 BED
33% 3 BED
13% 4 BED





4. TOOL KIT

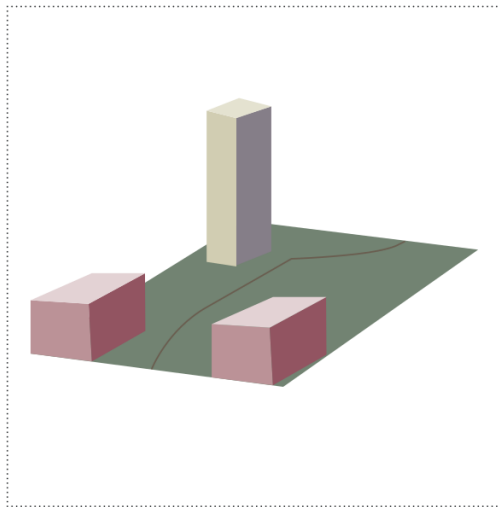
TOOL KIT FOR INFILL DEVELOPMENT

INTRODUCTION

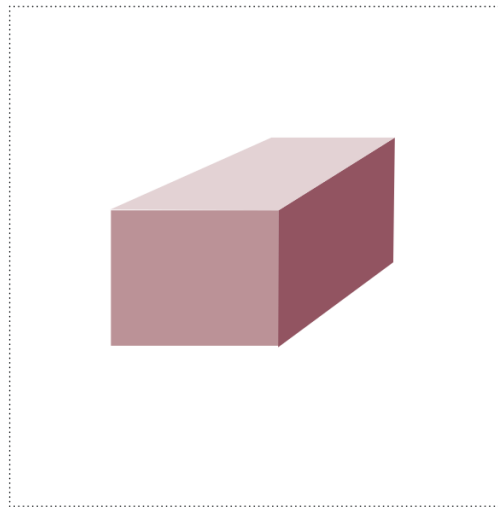
This chapter utilises the principles extracted from the literature and case study review to form a tool kit. Appendix 1 details how each of the tool kit principles were informed by the literature and case study review. The first stage of the tool kit looks at the strategic, overarching principles which all development on the site should adhere to. The second stage establishes rules to which the infill blocks should be implemented in accordance with and the third stage establishes the rules which should be applied to the plot to deliver public realm improvements. The tool kit should be applied to deliver infill development in order to improve the open spaces and the relationship that the estate has with the street.

OBJ3. Develop a tool kit based on the above principles

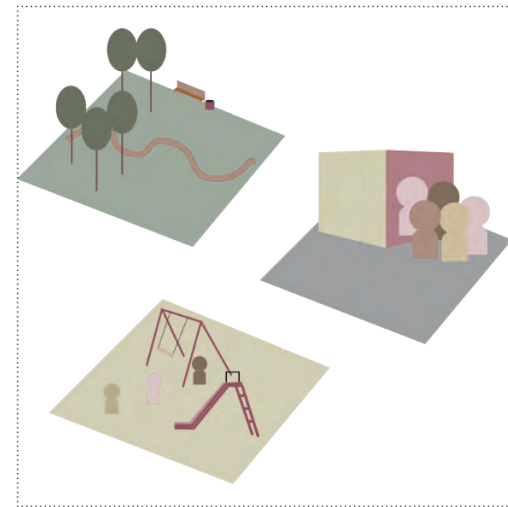
STRATEGIC (1-3)



BLOCK (4-11)



PLOT (12-16)



KEY



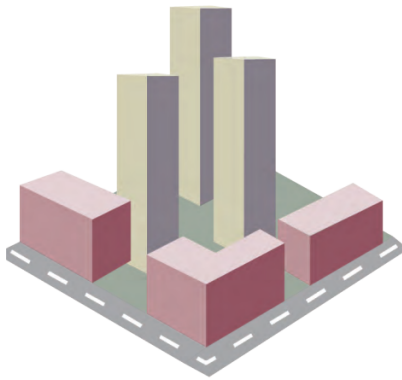
Open space improvements



Improved relationship to the street

STRATEGIC

1.



Avoid the over-development of estates.



Retains the openness of open space and protects amenity.



The existing street is not overwhelmed with development.

2.



Engage residents in meaningful consultation (see appendix 3 for further advice).



Open spaces respond to resident's needs to ensure use.



Facilities included benefit the wider community.
Movement routes correspond to movement patterns in the wider area.

3.



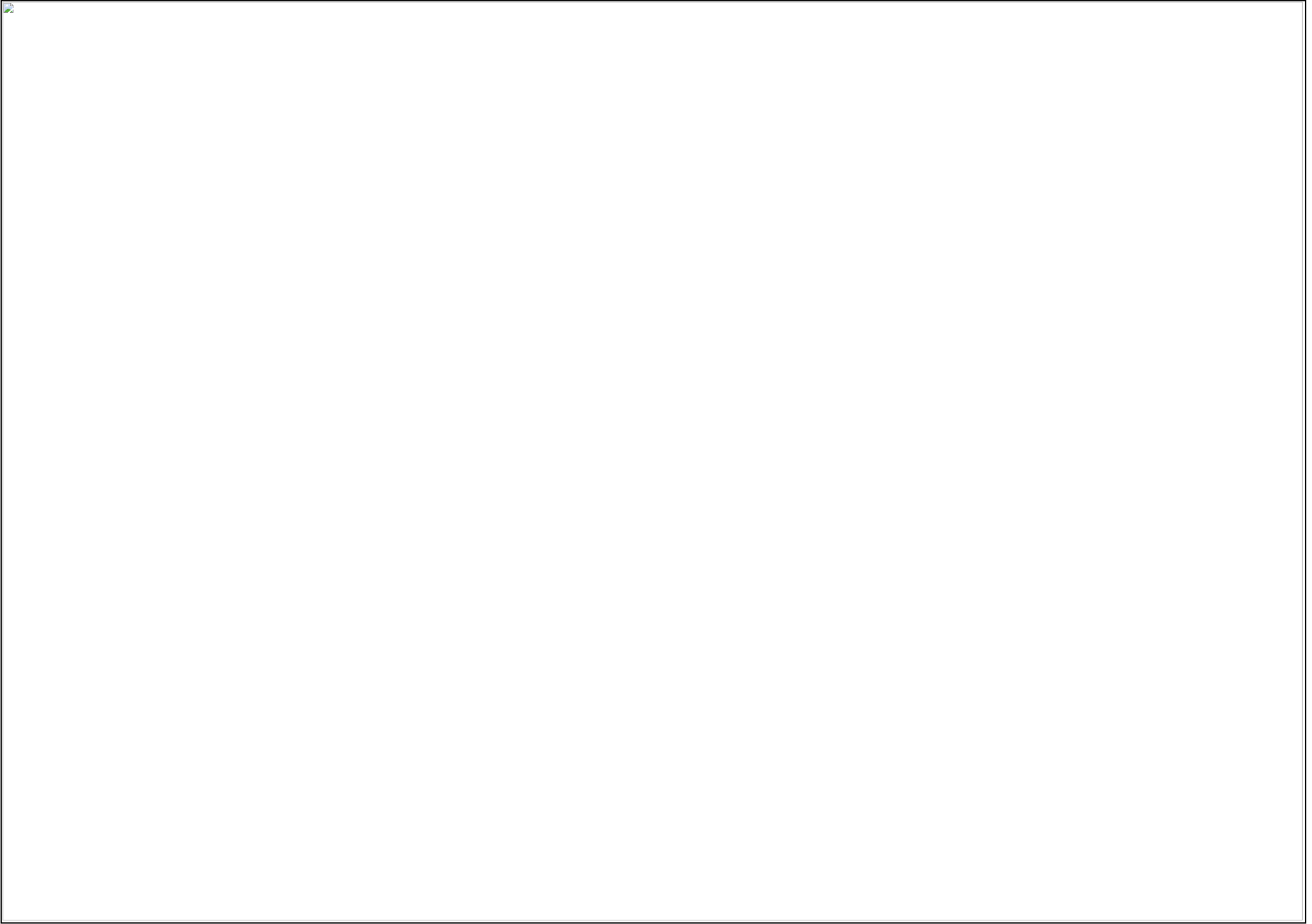
Reinforce neighbourhood identity.



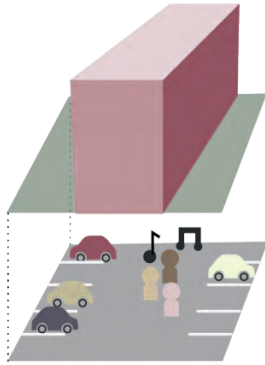
Installing public art animates open spaces and reinforces their public identity.



Using local materials to re-connect the estate to the street.



7.



Locate infill development in problem areas.

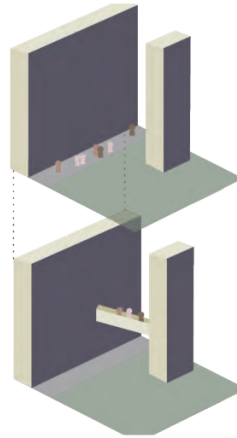


Removes the problem to improve the overall utility and safety of open spaces.



Ensures a positive contribution to the street.

8.



Remove walkways between buildings.

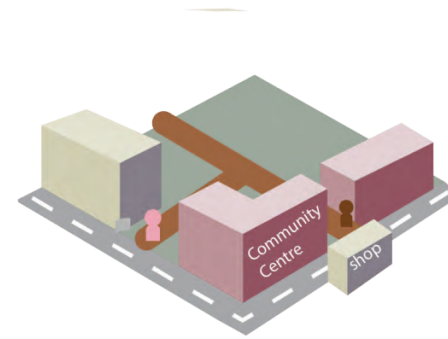


Re-orientates movement so pedestrians have priority on the ground floor to increase vitality of public spaces.



Improves vitality at ground floor level, ensuring contribution to the wider street to alleviate security issues.

9.



Site blocks and facilities at the interface with the surrounding neighbourhood.

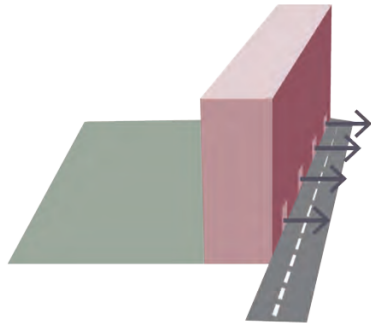


Defines the boundary of the estate, and the delineation of public and private open space.



Ensures that the estate contributes to the vitality of the wider area by encouraging cohesiveness between the estate and wider communities.

10.



Entrances to blocks should face the street.



Defines the border of the estate, to clearly delineate public and private space.



Brings more vitality to street level.

11.



Blocks should frame important views or routes to ensure legibility.



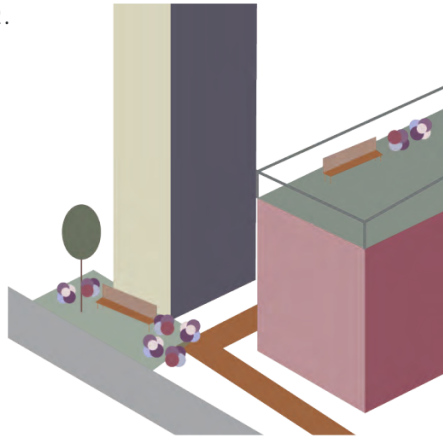
Signals public routes to open spaces in the estate.



Creating a more legible estate ensures the block becomes an integral part of the urban grain.

PLOT

12.



Utilise small areas of open space and rooftop gardens.

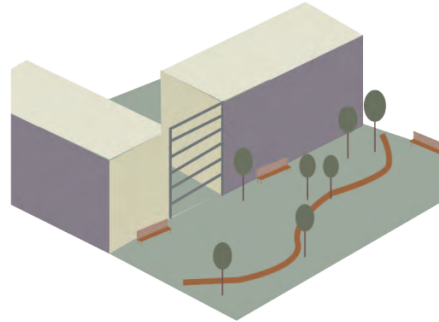


Re-landscape small areas of hard paving, such as those at the entrances to blocks and roof level gardens to provide high quality amenity space.



Entrance gardens can animate hard paving to improve the relationship of blocks with the street.

13.



Public and private space should be clearly defined with unambiguous fences and gates.



Better defines the use of spaces to avoid ambiguity.

Improves utility for families who value safe play spaces in proximity to homes.



Clearly defines public movement networks.

14.



Amenity space should be provided for a range of users.

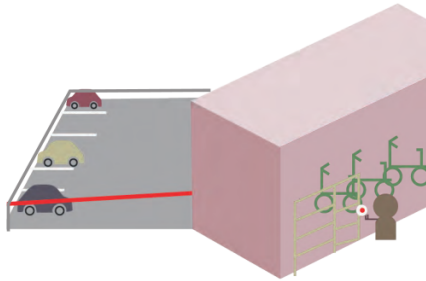


Ensures use by all.



Ensures the estate becomes a useful area for the wider community.

15.



Car parking and bike storage areas should be overlooked or secured with fob or barrier access.

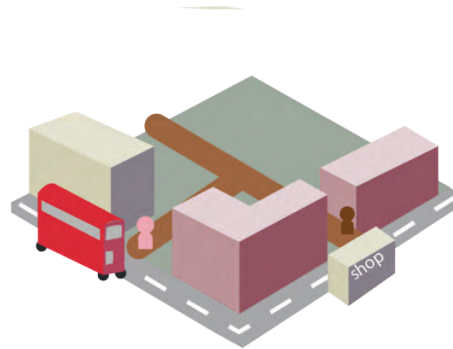


Car parks are separated from open spaces to reduce vehicular dominance.



Reduces vehicular dominance on the surrounding streets.

16.



Movement networks should be connected to the wider area.



Improves vitality in open spaces and reinforces public and private definitions.



The estate becomes part of the pedestrian network, shortening journey times.

CONCLUSION

The tool kit principles established from the literature and case study review should be applied to infill development schemes on mid to high rise post-war estates to improve open space and the relationship that the estate has with the wider street. The tool kit will be applied to the study site in section 6.



5. SITE ANALYSIS

HOME PARK ESTATE, LEWISHAM

INTRODUCTION

The Home Park Estate in Lewisham was built in circa. 1960s. It is comprised of T-shaped towers and is split into two areas separated by Winchfield Road. The design section will focus on the southern part of the site, as it presents a more manageable area to test the tool kit and offers an opportunity to stitch the development site into the surrounding area.

The following section analyses key aspects of the Home Park Estate (both northern and southern areas) to establish local context. The analysis will then zoom into the southern portion of the estate to analyse unique problems in this portion. The analysis is used in section 6 to inform the design response, which responds to the estate's problems by applying the infill development tool kit.

OBJ4. Develop a design response on the Home Park estate which utilises the tool kit

THE SITE



Fig 52: Site boundary for this project includes solely the southern portion of Home Park Estate, shown in the solid line.

DEMOGRAPHICS (BELLINGHAM WARD)

POPULATION (BELLINGHAM WARD)
15,300

% CHILDREN (0-15)
24.1
London Av. 20%

% 65+
10.4
London Av. 11.4%

DEPRIVATION
TOP 15%
most deprived
London Boroughs

% BAME
51.3
London Av. 40.2%

MEDIAN HOUSE PRICE
265,000
365,000 London median

ANALYSIS

Infill development must cater for higher than average children, through the provision of age appropriate facilities.

Development should respond to deprivation by providing social housing and affordable facilities.

DEVELOPMENT CONTEXT

REDEVELOPMENT OF THE FORMER HOUSING MANAGEMENT OFFICE



Fig 53: Proposals for the site.



Fig 54: Inclusion of a community centre.



Fig 55: Speedy modular construction techniques are used.

DEVELOPMENT PLANS

- Demolition of former housing management office.
- Provision of 31 homes (100% social rent) and community space.
- Planning permission granted.
- Expected completion in 2021.

CONSULTATION FEEDBACK



Bin store improvements needed



Crime prevention measures needed



Activity space needed for young people



Security measures needed to prevent non-residents using estate car parking

POTENTIAL DEVELOPMENT- THE BRIDGE LEISURE CENTRE



The Bridge Leisure Centre located (shown in hatching) to the east of Home Park Estate.

CONTEXT

Council owned asset with potential to provide new homes.

Current accessibility to Lower Sydenham station from the Estate is poor. The footpath through the industrial estate lacks safety, especially at night. The site could include a new route.

ANALYSIS

Consultation feedback to the Former Housing Management Office provides a basis for establishing aspirations for the site.

Development plans should be mindful of the permitted development to avoid over-development.

Redevelopment plans for the Bridge could improve access to Lower Sydenham.

SITE ANALYSIS

TRANSPORT

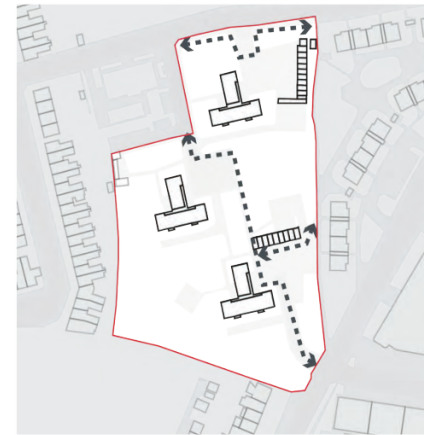


KEY

- Primary roads
- Secondary roads
- Tertiary roads
- Footpaths

- Bus stops
- Rail station
- Site boundary

PERMEABILITY

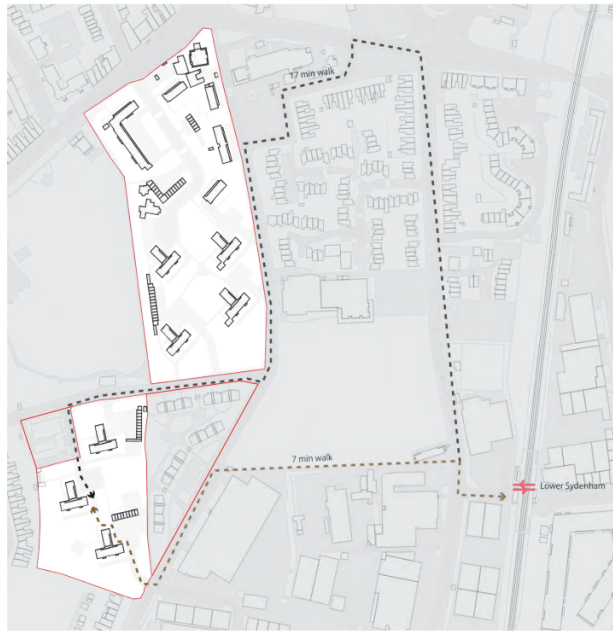


ANALYSIS

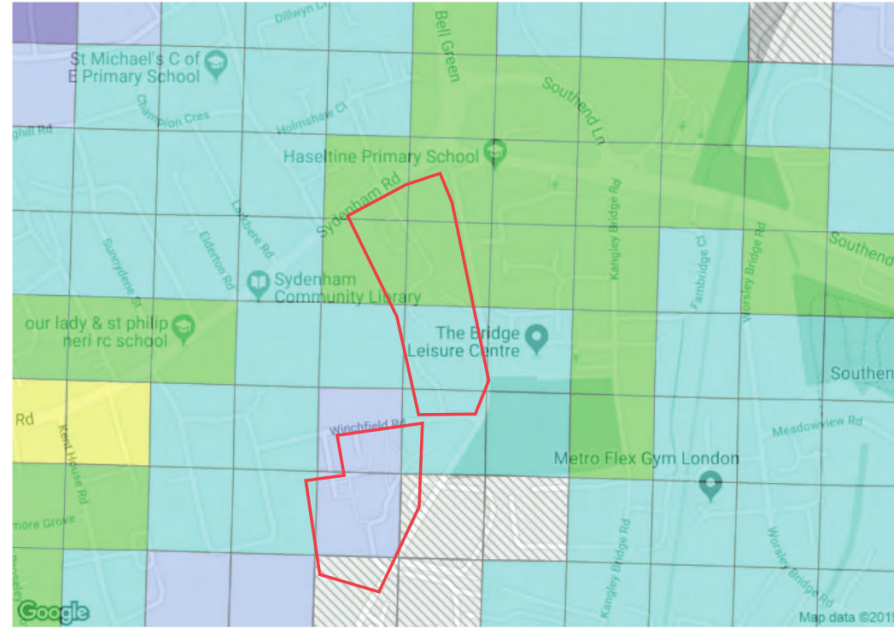
Routes to public transport should be maintained.

Permeability of the site is good and should be retained.

DISTANCE TO STATION



PUBLIC TRANSPORT ACCESSIBILITY LEVEL (PTAL)



ANALYSIS

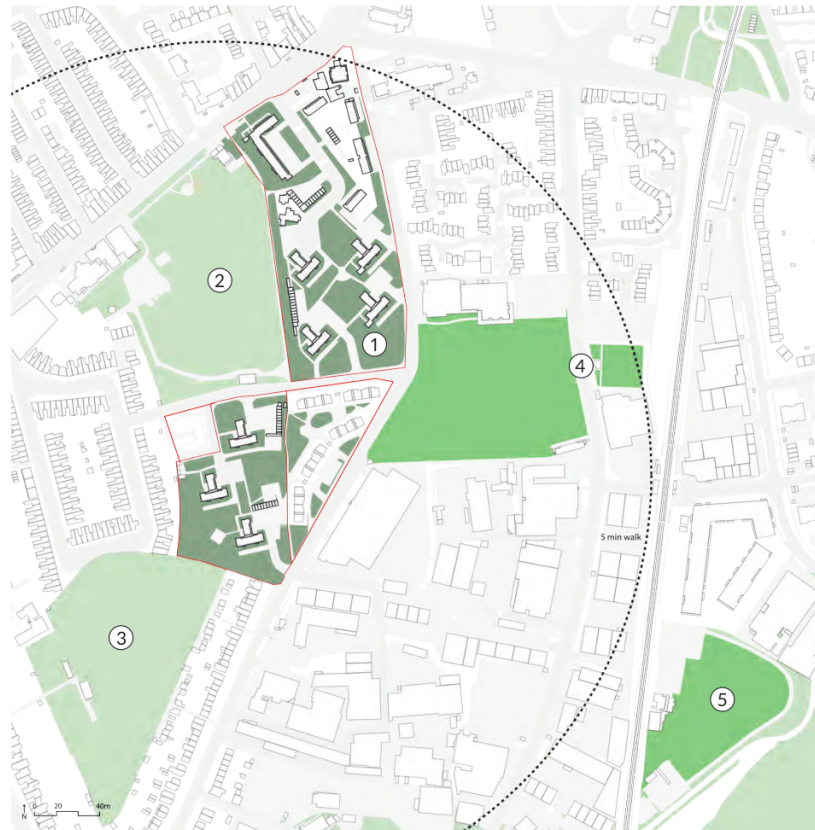
The site has poor transport accessibility.

Improving the PTAL and the route to Lower Sydenham Station is a priority in redevelopment plans.

KEY



OPEN SPACE



KEY

- Publicly accessible
- Semi-private
- Semi-public sports facilities

① SEMI-PRIVATE ESTATE SPACE

Unclear boundary distinction
Poor quality playground and landscaping

② HOME PARK

Outdoor gym
High quality play space
Provides footpath access to Sydenham Road

③ ALLOTMENT

Waiting list for plots

④ THE BRIDGE LEISURE CENTRE

Swimming pool, gym and football pitches
Indoor sports courts
Membership access

⑤ GOALS AND BOWLS CLUB

5-a-side football pitches
Bowls lawns
Membership access

ANALYSIS

There is good quality amenity space adjacent to the estate; poor quality open space on the estate can facilitate development.

Sports facilities in proximity to the estate are membership only. The estate could provide free sports facilities in recognition of high deprivation rates.



LOCAL FACILITIES



KEY

- Education
- Health
- Play
- Sports
- Community

CAPACITY

1. Hazeltine Primary School



2. Our Lady & St Philip Neri RC School



3. St Michaels CofE Primary School



4. Little Cherubs Nursery & Pre School



5. Sydenham Green Group Practice

YES

6. Home Park Adventure Playground

N/A

7. Home Park Estate Playground

N/A

8. Bela's Playground

N/A

9. Home Park Outdoor Gym

N/A

10. The Bridge Leisure Centre

N/A

QUALITY



COMMUNITY FACILITIES

12. Sydenham Community Library

- Computer and book club for 9-11 year olds
- English and IT classes
- Adult book club
- Counselling & hearing aid clinic

13. Campion Hall Community Association

- Community group meeting point
- Dance classes
- Sports club for people with disabilities
- Meet new people and socialisation groups

ANALYSIS

Primary school and nursery facilities are at full capacity. Development could provide additional space.

A new play facility should be provided on the estate as Bela's playground is not accessible via off-road means.

Community facilities are good quality and provide a range of activities. A new community space is to be provided in the permissioned development.

There are a lack of facilities for teenagers.

LAND USE



KEY

	Education		Residential
	Community		Industrial
	Retail		Pubs
	Sports		Ancillary
	Religious		

ANALYSIS

There are no shops in proximity to the estate.
Development could provide space for this.

Schools are located on Sydenham Road. It is
important that north-south routes are maintained
to ensure easy accessibility.

LOCAL CHARACTER

TYOLOGIES



BUILDING HEIGHT



Slab block adjacent to site.



Prevailing terraced housing.



On-site towers.

ANALYSIS

Home Park Estate sits in stark contrast to local typologies. Infill development should soften the contrast with complementing typologies.

Building heights sit in stark contrast to the surrounding area. Infill development provides an opportunity to bring the estate in line with the surrounding context.

MOVEMENT NETWORK



KEY

- Primary roads
- Secondary roads
- Tertiary roads
- - - Footpaths

KEY

- Poor
- Adequate

QUALITY ANALYSIS



①



②



③



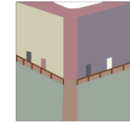
④



⑤



Dominance of vehicular movements



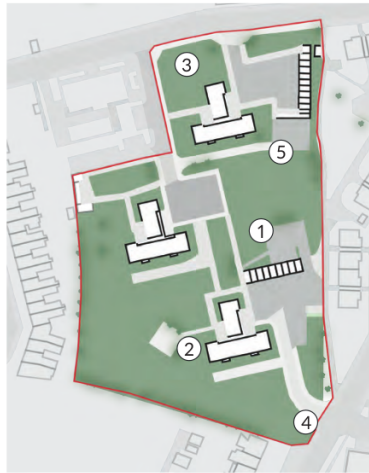
Unclear distinctions between public and private space

ANALYSIS

Pedestrian experience would be improved if footpaths did not interact with parking.

Entranceways to buildings are vehicle dominated and lack a sense of arrival. Entrance gardens would improve the public realm around blocks.

OPEN SPACE



KEY

- Semi-private
- Private gardens
- Car parking

KEY

- Poor
- Adequate

QUALITY ANALYSIS



①



②



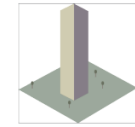
③



④



⑤



Poor quality open space



Dominance of vehicular movements

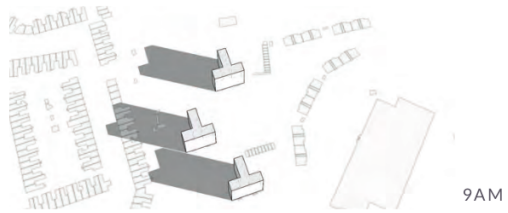
ANALYSIS

Car parks and garages provide space for infill.

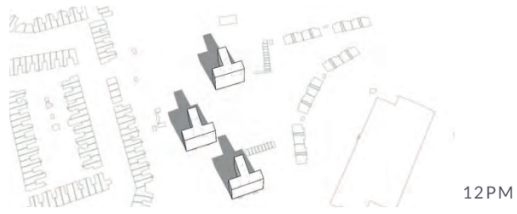
The open space lacks boundary definition and landscaping.

SHADOW ANALYSIS

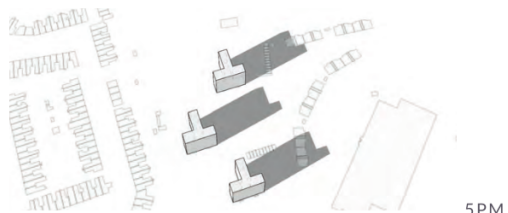
MARCH



9AM

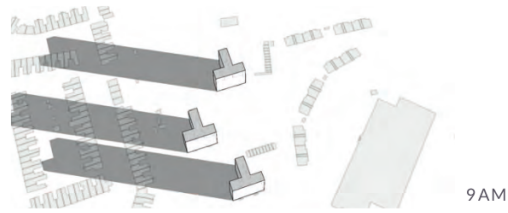


12PM

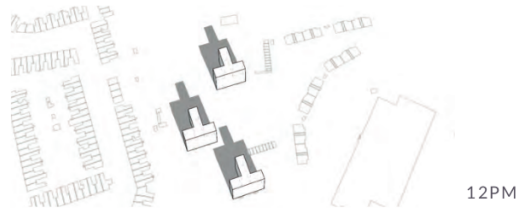


5PM

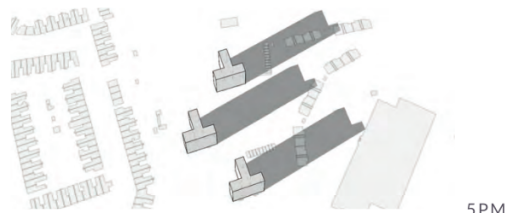
SEPTEMBER



9AM



12PM



5PM

ANALYSIS

Amenity of the infill development would be affected if located within shadows.

Infill development located to the south and east should be mindful of overshadowing.

CONCLUSION

The analysis in this chapter, summarised in the SWOT diagrams below, is utilised in section 6 to deliver a design response that utilises the tool kit to respond to key issues on the estate.

STRENGTHS



Vast amounts of open space on and surrounding the estate.

Good quality community facilities in the area.

The estate has a permeable network of streets.

WEAKNESSES



Open space on the estate is under-used as a result of its lack of amenity value.

There are sports facilities in proximity to the estate, but they are freely accessible.

Vehicular dominance as a result of the amount of car parking.

Unattractive bin storage.

High crime levels.

Lack of a relationship to the street as a result of the poor boundary definition.

Poor PTAL.

OPPORTUNITIES



Underused and poor-quality spaces which could facilitate infill.

Development could fund improvements to the public realm.

Development could help to reduce the high crime rates on the estate, by overlooking spaces and securing car parking.

PTAL could be improved by planning for future links through to the station.

THREATS

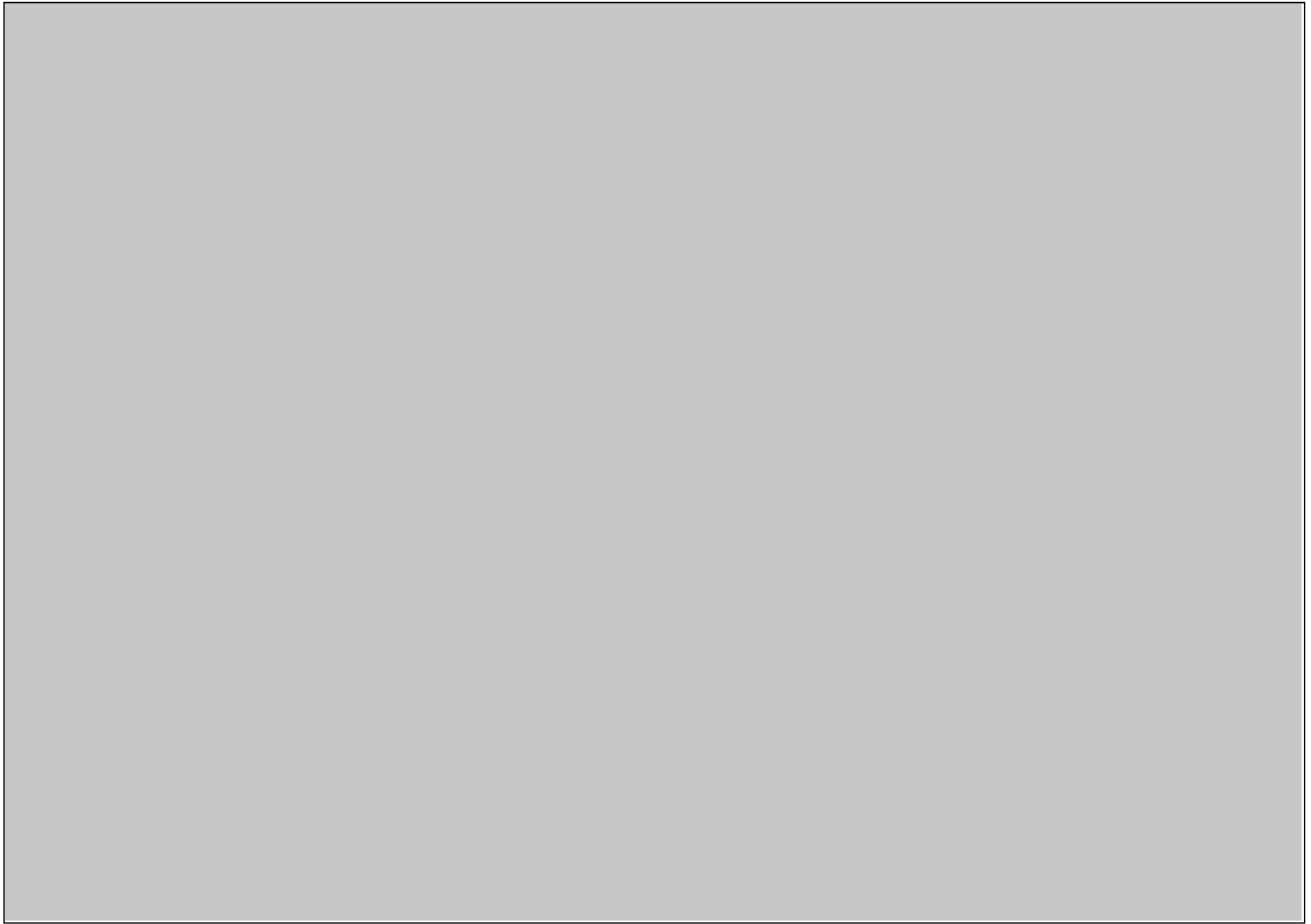


Surrounding development to the estate is low rise, limiting the heights and size of future developments.

Shadowing from the towers limits where infill development can be located to avoid overshadowing.

Nursery facilities lack capacity.

Infill development should not hinder future redevelopment.



6. DESIGN APPLICATION

INTRODUCTION

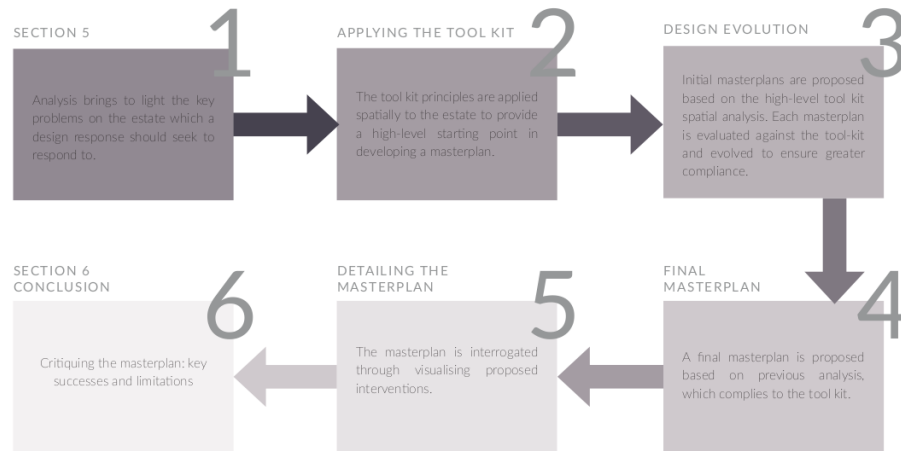
The following section will detail the design response on the Home Park Estate, utilising the tool kit and responding to the analysis in the previous section.

The infill development implemented on the estate aims to improve the relationship that the estate has with the wider street environment and improve the overall quality and usefulness of the open space in line with the aims of the project.

The section details the development of the design to fully explain how the tool kit principles have been implemented on the estate, moving from a high-level spatial analysis of how the tool kit could be applied to deliver infill development on the estate, to looking critically at how the tool kit was applied as the masterplan progressed through design evolution.




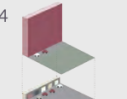
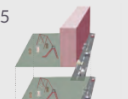











The section then proposes a final masterplan, and looks in detail at the design solutions on the estate through cross-sections, impressions and precedents.

The following flow diagram shows the process used to develop the design:



OBJ4. Develop a design response on the Home Park estate which utilises the tool kit




TOOL KIT PRINCIPLES

- 1  Avoid over development
- 2  Meaningful consultation
- 3  Neighbourhood identity
- 4  Infill car parks/ garages
- 5  Reduce vehicular dominance
- 6  Infill as stacking
- 7  Infill problem areas
- 8  Remove walkways
- 9  Infill at nodes
- 10  Street facing entrances
- 11  Frame public routes
- 12  Small open space areas
- 13  Public - private space definition
- 14  Amenity space for all
- 15  Secure parking
- 16  Connected movement networks

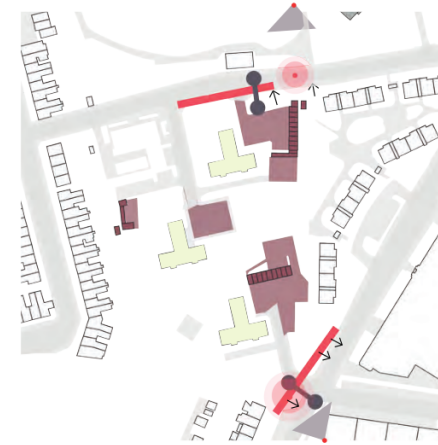
APPLYING THE TOOL KIT






STRATEGIC



-  1
Development should not affect the amenity of the existing blocks.
-  3
Reinforce the identity of the area in the use of heights, massing and materials.
-  2
Consultation feedback to the Former Housing Management Office suggested improvements were needed to bin stores and more activity space needed for young people; this could incorporate sports space, located at the interface with the community.

BLOCK



-  4 & 7
Car Parks and garages could accommodate infill development, overlooking streets and open spaces to improve safety and reduce car dominance.
-  5 & 10
Enclosing the estate with street facing blocks introduces boundary definition to improve the relationship with the street.
-  6
Additional stories to raise funds to improve green spaces, the appearance of the towers and add balconies for residents.
-  9
Non-residential facilities should be located at these key nodes to connect the estate to surrounding communities.
-  11
Development should frame key public routes into the estate to reinforce the public nature of routes.

TOWARDS A MASTERPLAN: DESIGN EVOLUTION

PLOT



12

Entrance gardens to make entrances more pleasant for residents and provide a public space at the interface with the street.

←-----→ 16

Key N-S route to connect the estate to surrounding areas. The route should be public to ensure permeability and to link the estate to the wider context.

— 13

Fences should be used to define private areas within the development, which could include courtyard gardens, car parks and bike stores.

15

Secure car parking area overlooked by the permitted development to improve vehicle crime rates.

DRAFT MASTERPLAN 1 (DMP1)

- ✓ 5
- ✓ 7
- ✓ 9



DMP3:



- ✓ 1 (vs. MP2)
- ✓ 9
- ✗ 5
- ✓ 11

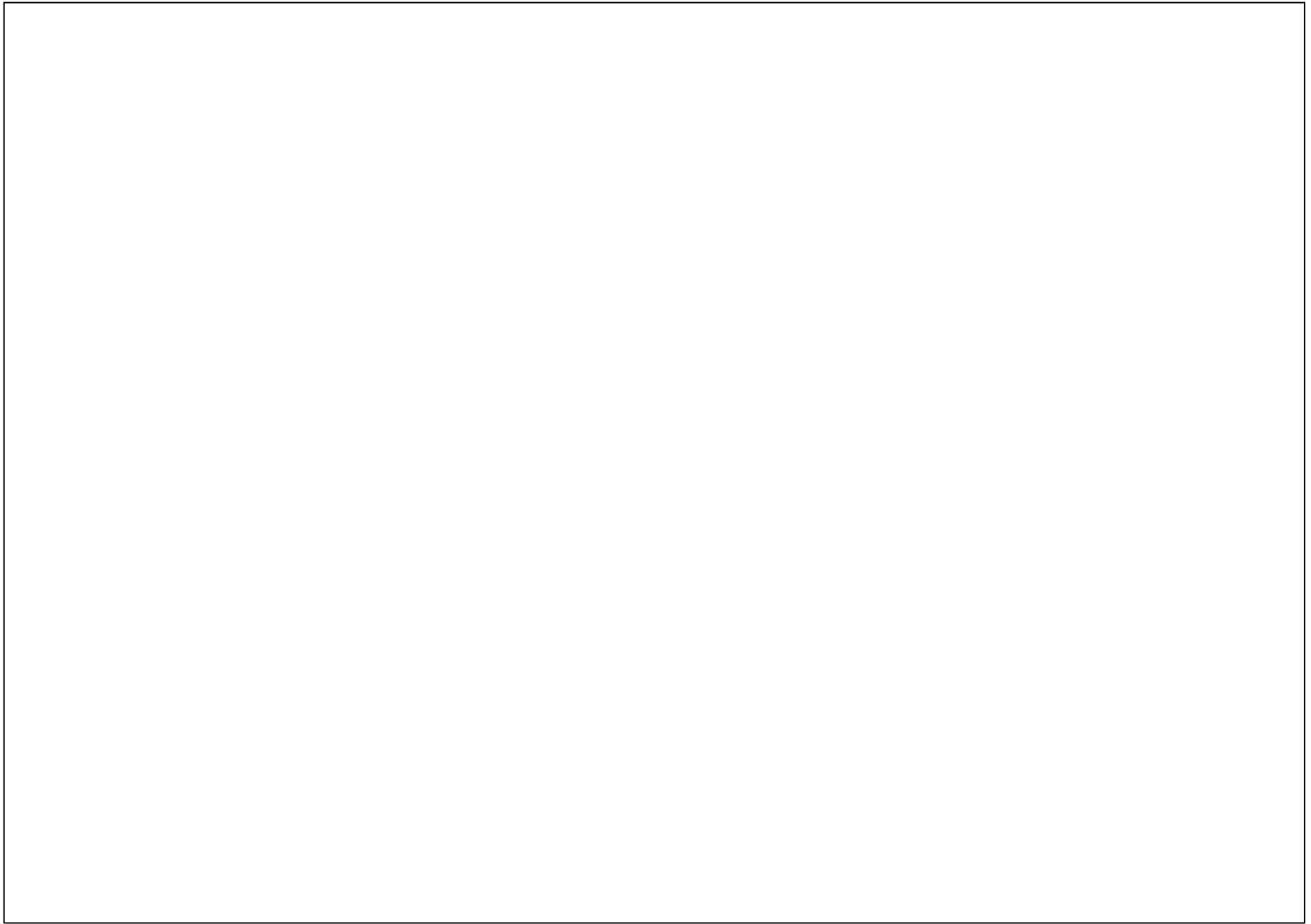
FINAL MASTERPLAN (MP5): PLAN

EXISTING

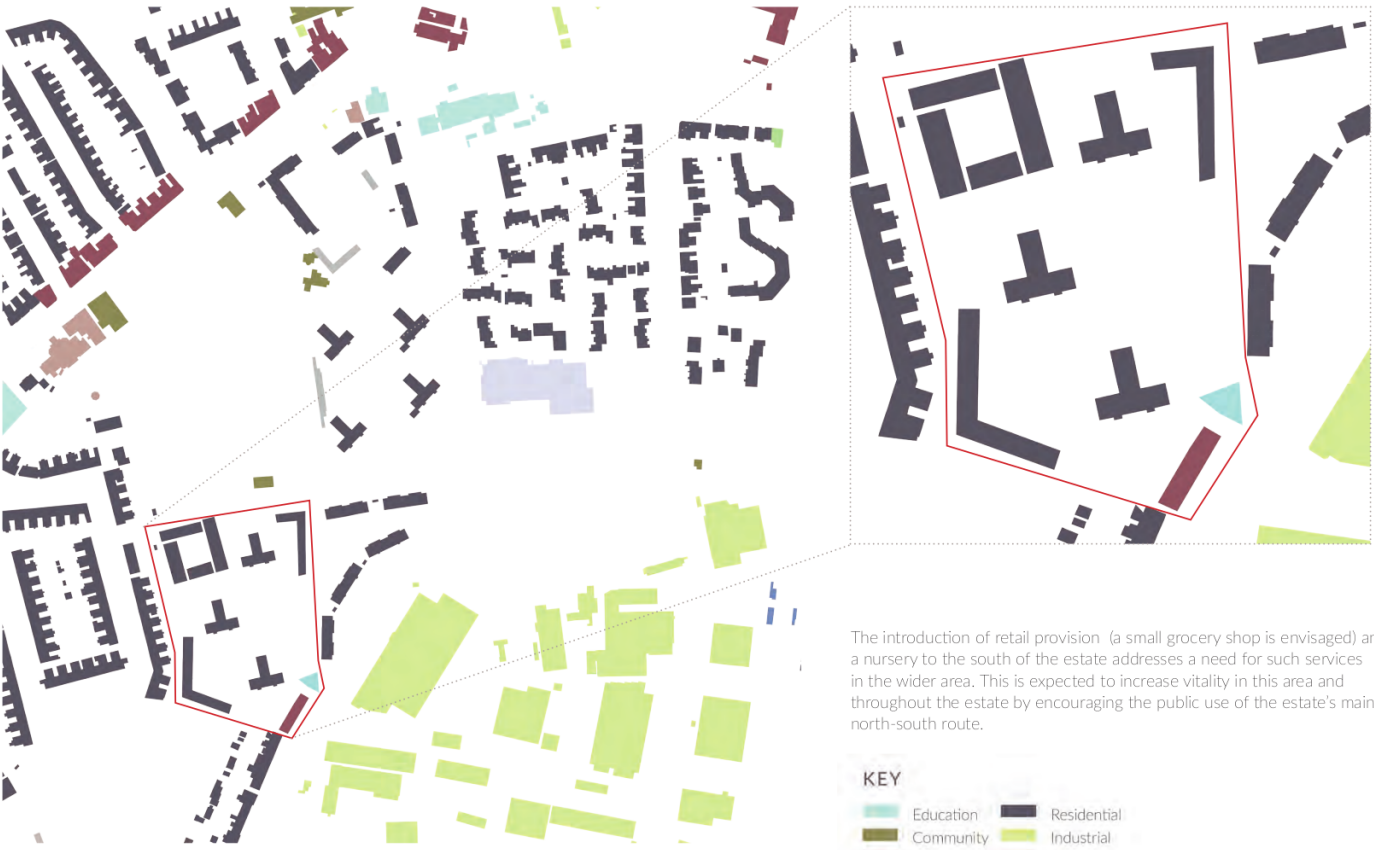
PROPOSED

FINAL MASTERPLAN (MP5): AXONOMETRIC





LAND USE



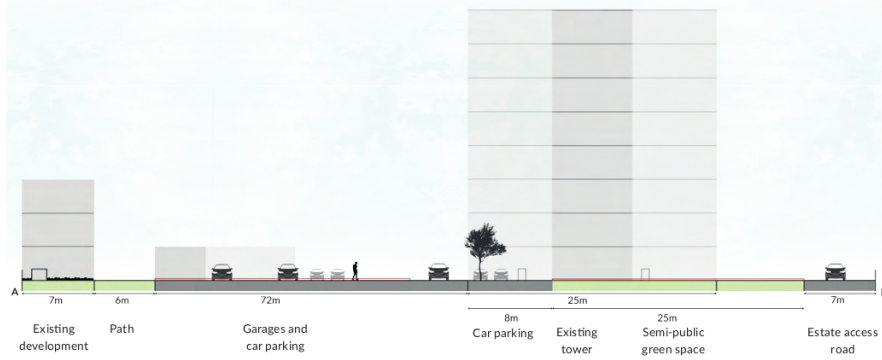
The introduction of retail provision (a small grocery shop is envisaged) and a nursery to the south of the estate addresses a need for such services in the wider area. This is expected to increase vitality in this area and throughout the estate by encouraging the public use of the estate's main north-south route.

KEY

■ Education	■ Residential
■ Community	■ Industrial
■ Retail	■ Pubs
■ Sports	■ Ancillary
■ Religious	

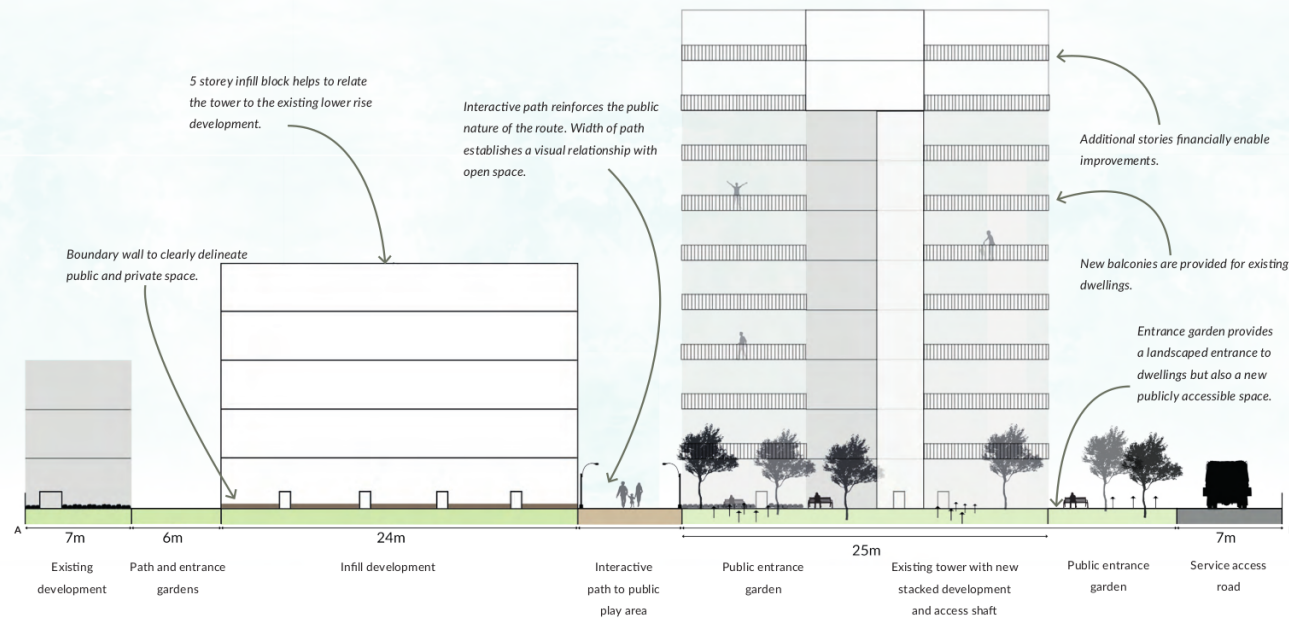
DETAILING THE MASTERPLAN

EXISTING



MPS

PROPOSED



EXISTING



MP5

PROPOSED



New entrance way introduces vitality into the entrance garden ensuring that it is overlooked

Benches to make the entrance garden a 'resting' rather than transient space.

Lighting ensures the entrance garden is safe and usable at night.

Rubbish bins are removed from roadside and placed in the new refuse storage areas.

Foliage and planting to make the entrance garden more pleasant and contribute to the street scene.

PRECEDENTS



Fig 56: Entrance gardens King Square Estate



Fig 57: Entrance garden King's Crescent Estate, Stoke Newington.



Fig 58: La Tour Bois-le-Prêtre, Paris. Before (left) and after (right) the retrofitting of balconies onto the social housing tower.



EXISTING



PROPOSED



MP5



Street facing development completes the frontage and introduces overlooking on the main road, contributing to the street environment.

Private garden is clearly demarcated with fences.

Play street signals the public route to the play area.

Secure bike storage facility. Offers an alternative to car ownership.

Landscaping ensures that the verdant character of the estate persists, despite the new development.

Public nature of the path is signified by street furniture.

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LOUISA FACCHINO-STACK

EXISTING



MP5

PROPOSED

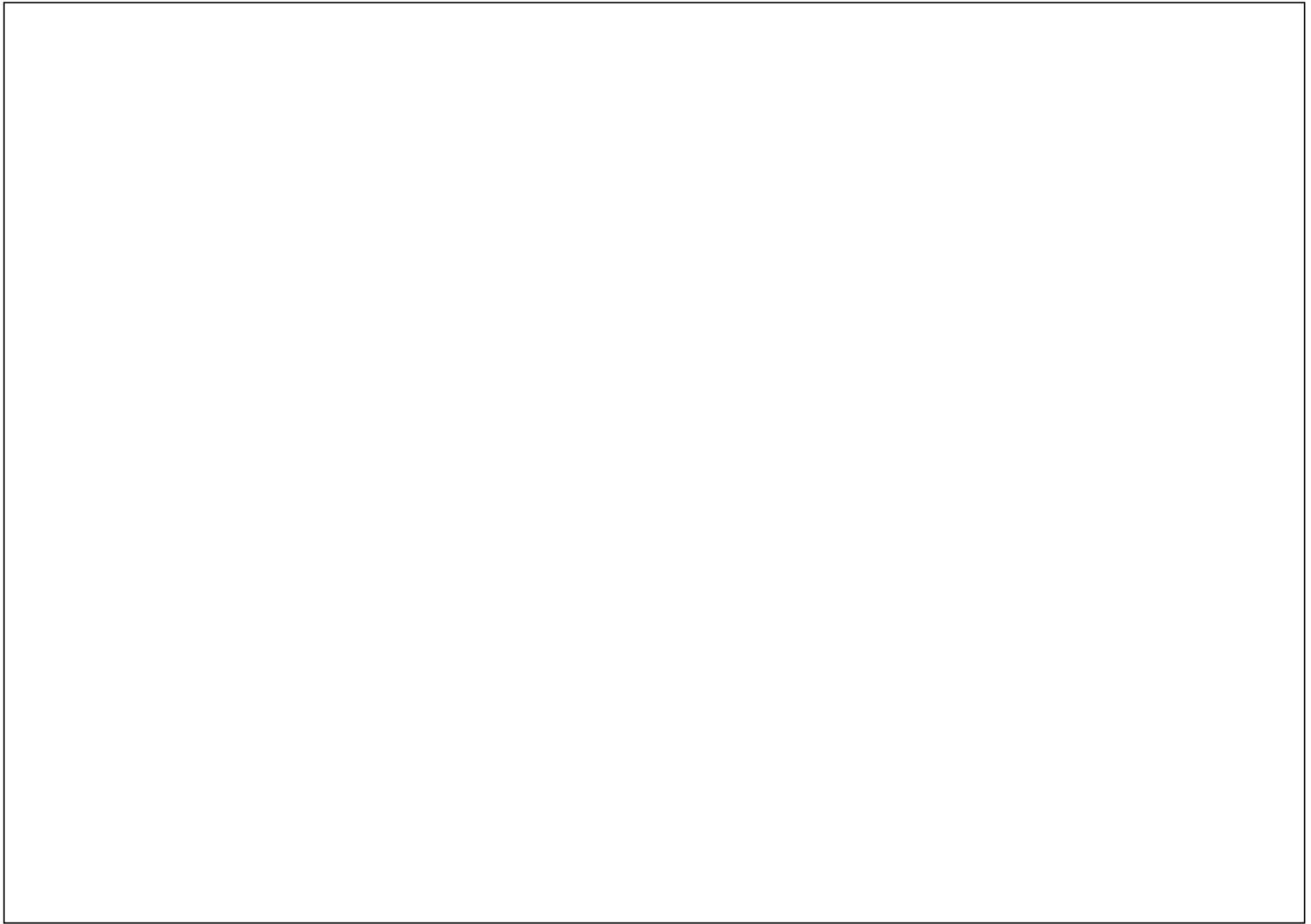


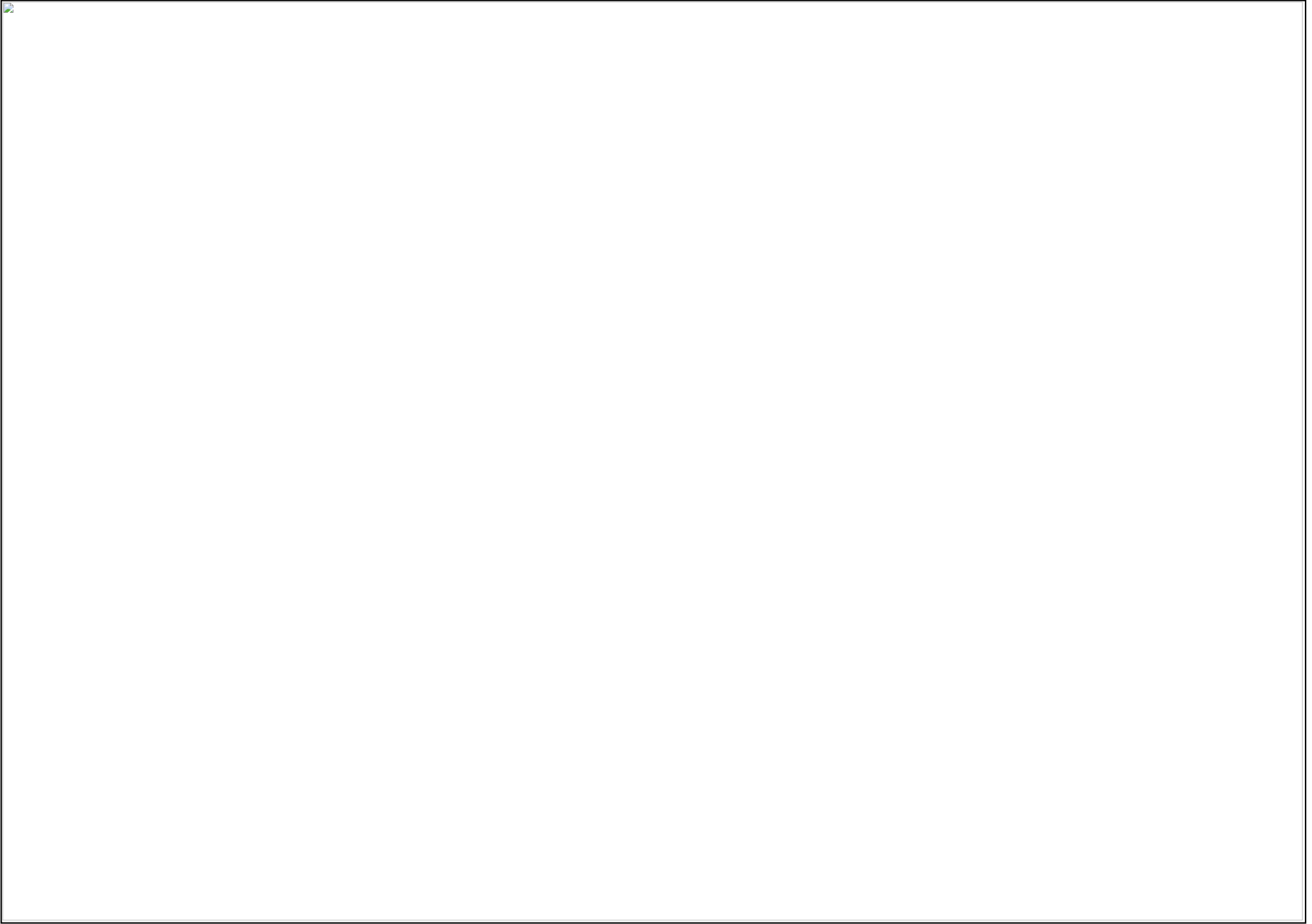
Space for 26 cars, 32 cars are surveyed on the estate. Connections to the station are to be improved with future development at the Bridge Leisure centre, increasing PTAL and decreasing the need for cars. Cycle parking is provided for each block, also decreasing car demand.

One car park reduces vehicular dominance on the estate.

Future proofed with electric car charging ports.

Locked gates to ensure security of the cars. Opened with a fob given to car owners. This is to reduce the high vehicle crime on the estate.





EXISTING



MP5

PROPOSED



Washing line to replace the informal existing one out up by residents to respond to residents needs.

Segregated private garden is a safe place for children to play in.

Potential to retrofit glass balconies to towers to improve use for residents and appearance.

Unambiguous fence to delineate the private garden.

Play street to signal route to the play ground and the public nature of the path.

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EXISTING



MP5

PROPOSED



Street facing entrances.

Private resident's garden segregated by unambiguous fence.

Corner facing block to define the edges of the estate and to reduce road dominance to improve open space to the rear.

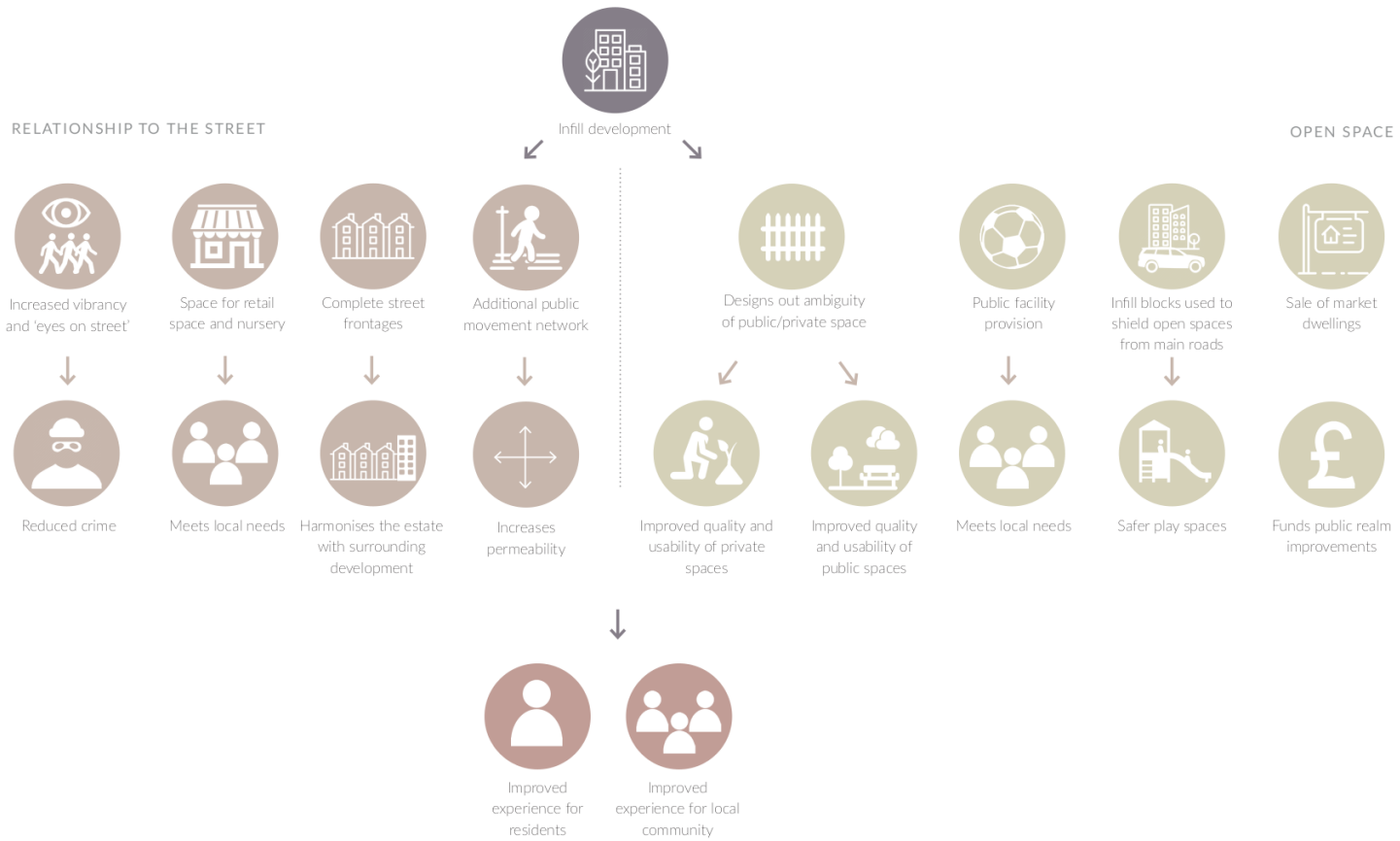
Nursery provision responds to local under provision. Location opposite the shop creates a new neighbourhood centre. Convenient location opposite the adjacent industrial area.

Interactive pathway to promote play and signal the public route to the playground and MUGA.

Grocery shop in response to resident's consultation feedback (to Lewisham's consultation on the Former Housing Office) and local needs. Located at interface with existing community. Location here will encourage people to use the estate's public street network to increase vitality.

CONCLUSION

EXPECTED SUCCESSES



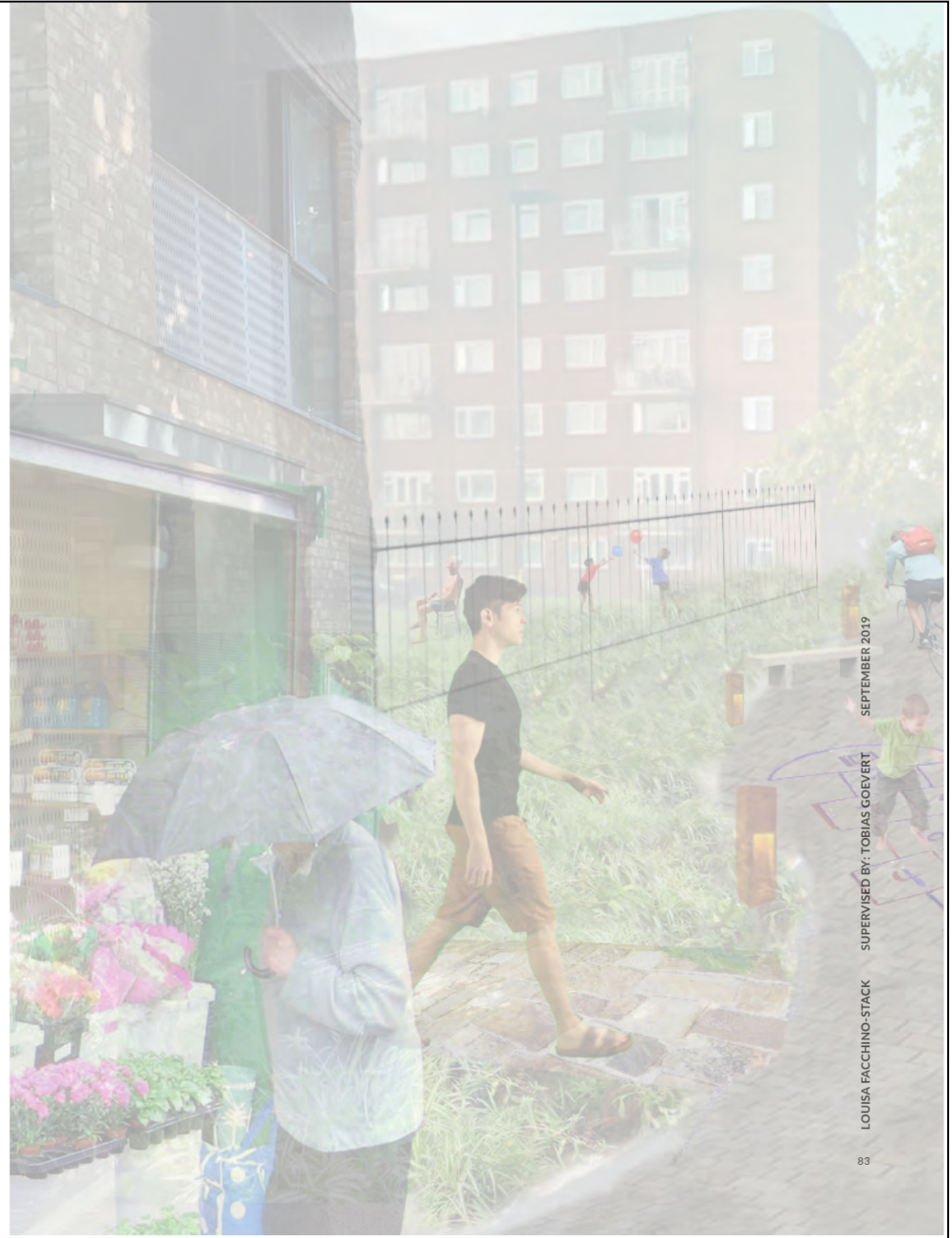
LIMITATIONS



Lack of consultation with residents means that designs are not informed by their aspirations for the site.



Reduction in car parking relies on development at the Bridge Leisure Centre coming forward to improve connections to the station. Until car reliance is reduced parking pressures will be increased.



SEPTEMBER 2019

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LOUISA FACCHINO-STACK

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7. CONCLUSIONS

CONCLUSION

1. SUMMARY OF FINDINGS

The literature review brought to light the fact that some mid to high-rise post-war suffer from similar issues in regard to the quality of open space leading to its under-use and a poor relationship with the wider street environment. The argument that the problems are directly a result of original design is perhaps too simplistic to fully explain the complex socio-economic causes of problems on underfunded estates. However, the argument does have some merit if applied critically and all contributing factors are taken into account.

Demolishing and rebuilding estates is one solution proposed to improve estates' quality, however the literature shows that it is not only disruptive to residents, but also may be un-viable as a result of the high cost of reacquiring Right to Buy properties and the environmental unsustainability. Infill development is a proposed alternative to improve council estates as a result of the financial incentives, minimal disruption to residents and the potential it has to design out the original faults in estates.

The case study review revealed that infill development has the potential to improve the open space and the relationships that estates have with the wider street through improving the definition of public and private spaces, completing street frontages, overlooking crime prone areas and introducing new facilities. Funding raised from the sale of a percentage of market properties can deliver affordable housing and improved facilities. The King Square Estate is a particularly successful example.

2. APPLICATION TO RESEARCH OBJECTIVES

A set of tools derived from a literature and case study review were used to explore the following research question:

Q1. How can infill development on council estates address design faults to improve open spaces and the relationship that estates have with the wider street?

The tool kit was tested on the Home Park Estate in Lewisham, seeking to establish how infill development should be implemented to achieve improved open spaces on the estate and an improved relationship to the wider street.

The Home Park Estate design response positively answers the research question: infill development, utilising the principles in the tool kit, can improve open spaces by 'shielding' open space to improve safety, better define private and public spaces, fund open space amenities and reduce vehicular dominance. Infill also improves the relationship that the estate has with the wider street through increasing overlooking

OBJ5. Critically analyse the project findings and evaluate the tool kit

to reduce crime, harmonising the estate with the surrounding fabric, introducing vitality through providing space for retail and other facilities and providing an improved public movement network.

Positive findings towards infill development on council estates seen in the literature and case study review and the design response answer the research question. This study therefore provides a valuable contribution to a gap in the literature looking at the viability of infill development on council estates.

3. LIMITATIONS

As councils and other bodies are only just beginning to turn to estates to provide additional housing, there is a lack of literature looking at infill development, and so the tool kit has been based on more general principles in council estate regeneration.

It is also acknowledged that infill development cannot provide a viable solution to estate regeneration in every case, as some estates may be structurally unsound, which may limit the application potential of the study.

Funding shortages for local authorities may limit the delivery of all proposed public realm improvements.

Due to time constraints, it was not possible to consult with residents; the study merely applied the consultation feedback to the development on the Former Housing Office undertaken by the council to inform the designs. Before work on the project continues, the community should be consulted in order to design spaces that meet residents' needs and will therefore be more useful to them.

Infill development schemes rely on the local authorities' ability to borrow money, and as funding for council housing is a deeply political issue, the future of funding is uncertain.

KEY DELIVERABLES (SEE APPENDIX 2)

EXISTING



WHOLE ESTATE

350 HOMES

A

250 AFFORDABLE HOMES
WHOLE ESTATE



0.8HA SEMI PRIVATE OPEN SPACE



0 RETAIL



0 FACILITIES



80 CAR SPACES

PROPOSED



+28%

+98 HOMES

A +27%

68 AFFORDABLE HOMES



0.5HA PUBLIC
0.3 HA PRIVATE OPEN SPACE



+1 RETAIL UNIT



1 NURSERY
1 MUGA
1 PLAYGROUND
REFUSE STORAGE



40 BIKE SPACES
26 CAR SPACES

£ 11 MILLION FUNDING (SALE OF MARKET HOMES)

4. CONTRIBUTION TO PRACTICE



Delivery of housing to aid London housing and affordability crisis



Borrowing cap has been lifted on local authorities, thus the study is timely



Using council assets to deliver housing is cheaper and more expedient



Existing literature looks at demolition and redevelopment of estates, not estate infill



Tool-kit can be applied to post-war, mid to high-rise estates in different contexts



Infill avoids the dissolution of communities and the gentrification of council estates

5. RECOMMENDATIONS

Consultation with residents is crucial, as building on open spaces and car parking areas in estates may prove unpopular if potential benefits are not relayed effectively. Research should therefore be undertaken to establish the best residential engagement strategy to meaningfully engage residents in plans for infill development.

Once effective consultation has been undertaken, the infill principles should be applied to the northern part of the Home Park Estate to deliver a cohesive plan.

The rental models for affordable housing are an important aspect of infill development in order to fund ongoing maintenance and improvements to the estate and avoid deterioration of the public realm on estates. Further research should establish a cost effective and affordable rental model in order to maintain the estate's high-quality public realm.

6. PERSONAL REFLECTION

Council estates provide an affordable and important source of housing in the UK. As the borrowing cap on local authority housing has recently been lifted, council housing will hopefully come to the forefront of discussions and deliver much needed homes. This project, therefore, is timely and hopefully will encourage discussions about how council estates can provide high quality living environments for current and future residents.



5. APPENDICES

APPENDIX 1: TOOL KIT METHODOLOGY

Tool-Kit Rule	Informing Literature and Case Studies
Strategic Priorities	
1 Avoid the over-development of estates.	Baroness Road; Jubilee Street
2 Engage residents in meaningful consultation from the start.	The King Square Estate; The Triangle Estate;
3 Reinforce neighbourhood identity through the use of building materials that reflect existing development and local art that reflects the community identity	DCLG (2016); Future of London (2016); HTA et al (2016); The King Square Estate
Infill Block	
4 Locate infill development on low-density, unused or leftover spaces such as garages and car parks.	King Square Estate; The Triangle Estate; Baroness Road; Jubilee Street
5 Locate infill blocks to reduce vehicular dominance of main roads	DCLG (2016); Savills (2016); King Square Estate; Jubilee Street
6 Accommodate infill development on top of existing buildings	The Triangle Estate
7 Locate infill development in problem areas	King Square Estate; The Triangle Estate; Baroness Road; Jubilee Street
8 Remove walkways between buildings	The Triangle Estate
9 Cite community facilities at the interface with the surrounding neighbourhood	Savills (2016); Future of London (2016); HTA et al (2016); King Square Estate
10 Entrances to blocks should face the street.	Savills (2016); King Square Estate; Jubilee Street
11 Blocks should frame important views or routes to ensure legibility.	The Triangle Estate
Infill Plot Improvement	
12 Use small areas of open space and rooftop gardens as open space	King Square Estate; Baroness Road
13 Public and private space should be clearly defined with unambiguous fences and gates	HTA et al (2016); DCLG (2016); Savills (2016); King Square Estate
14 Amenity space should be provided for a range of users, with places to rest for elderly people, play spaces for young children and activity space for teens	DCLG (2016); King Square Estate; The Triangle Estate; Baroness Road
15 Car parking and bike storage areas should be overlooked or secured with fob or barrier access	King Square Estate; Triangle Estate
16 Movement networks should be connected to the wider area to improve the permeability of the estate and connect to local facilities	DCLG (2016); Savills (2016); HTA et al (2016); King Square Estate; The Triangle Estate; Baroness Road

Table 2: Tool kit methodology

APPENDIX 2: DWELLING & VIABILITY CALCULATIONS

1. LONDON PLAN SPACE STANDARDS

No. Bedrooms	Minimum Space Standard (m ²)
1 bedroom	39
2 bedrooms	61
3 bedrooms	74
4 bedrooms	90

Table 3: Space standards

2. PROPOSED UNIT MIX

No. Bedrooms	% Total Dwellings
1 bedroom	20
2 bedrooms	35
3 bedrooms	30
4 bedrooms	15

Table 4: Unit mix

Unit mix proposed based on demographic analysis, which shows a higher than average amount of children in the ward, translating to a need for larger dwellings with more bedrooms.

3. THE PLAN

Total floor area provided from infill development in the plan -20% (estimated service areas ie. lifts, entrances, facilities):

6871M²

4. DWELLING PROVISION

No. Bedrooms	No. Dwellings
1 bedroom	20
2 bedrooms	34
3 bedrooms	30
4 bedrooms	14
Total	98

Table 5: Dwelling provision

Dwelling provision calculated using total floor area, unit mix and space standards to optimise dwellings within the parameters of the unit mix.

5. FINANCIAL CONTRIBUTIONS (MARKET SALE)

30% of dwellings for market sale.

No. Bedrooms	No. dwellings for sale	Sale revenue (£)
1 bedroom	6	1,500,000
2 bedrooms	10	3,000,000
3 bedrooms	9	4,050,000
4 bedrooms	4	2,400,000
Total	28	10,950,000

Table 6: Financial contributions

This figure was used based on the King Square Estate precedent which delivered a number of quality public realm benefits funded by the sale of market dwellings.

6. FINANCIAL CONTRIBUTIONS AFFORDABLE RENT (BELLINGHAM)

50% of dwellings at affordable rent **20%** of dwellings social rent.

No. Bedrooms	No Dwellings (total minus market sale)	Max rent per month (£)	Monthly income generated (£)
1 bedroom	14	773	10,822
2 bedrooms	24	858	20,592
3 bedrooms	21	944	19,824
4 bedrooms	10	1030	10,300
Total			61,538
Total (per annum)			738,456

Table 7: Affordable rent

London Living Rent Data 2019/20 for Bellingham Ward, LB Lewisham/ Lewisham Homes use the London living rent as a basemark figure.

7. BUILDING COSTS

Approx building costs for the provision of 4 new blocks, provision of a nursery, bike and refuse storage, estate landscaping and public realm improvements:

£18,000,000

Based on the construction costs of the King Square Estate

8. GRANTS

One third of building costs covered by grants and Right to Buy receipts:

£6,000,000

9. PROJECT FUNDING

£10,950,000 Market sale

£6,000,000 Grants

£1,107,684 18 months of affordable rent contributions

£18,057,684 To cover built costs

Affordable rent contributions to subsidise social rent, cover ongoing maintenance and provide a viable source of income of LB Lewisham.

APPENDIX 3: RESIDENTIAL ENGAGEMENT PRINCIPLES

Benefits to the community

Future of London (2016) argue that to gain residential support for infill development it is important that the infill schemes mitigate negative impacts by funding improvements to the public realm, including community centres, play areas and other open spaces, parking areas, common entrances, estate lighting and refuse and cycle stores. Support can be encouraged by getting residents to understand that increases in population benefit neighbourhoods in terms of vitality for local shops and services.

Early consultation

The GLA's estate regeneration study (2015, p.16) stresses how important initial engagement is to encourage the acceptance of schemes by existing residents. The GLA argue that acceptance of schemes will be higher if schemes respond to resident's needs.

A core component to the Estate Regeneration National Strategy (DCLG, 2016) is termed 'Residential Engagement and Protection'. The strategy proposes that residents, and the wider community, are involved in early, ongoing and inclusive discussions about plans for the estate. The strategy proposes that residents are given a final say on the scheme through, a vote or through workshops. There, however, is no stipulation of a threshold level of support or how the scheme should progress if residents do not voice support.

'Genuine' consultation

Common to both City Villages (IPPR, 2015) and Completing London's Streets (Savills, 2015) is a lack of focus on how existing residents should be consulted and how they can inform the schemes. City Villages emphasises the importance of involving existing and new communities in the masterplanning of the new developments (p.65, 87), however does not propose ways in which they can encourage support from residents, given that the city villages concept will involve extensive demolition and redevelopment of established estates. Completing London's Streets also recognises the importance of consultation, stating in the conclusion of the report that the community should have a 'genuine and privileged role' in estate regeneration, which they define as not just a 'post hoc consultation' (p.129), however the central part of the study focuses purely on the design of the new schemes, rather than how 'genuine' consultation can be undertaken to inform design.

The GLA (2015) also stress the importance of 'taking the community pulse' throughout the regeneration process and after it had been completed; this, it states, ensures that communities do not feel alienated, gives developers opportunities to respond to key concerns and to contribute to the development of community facilities .

Relocation of residents

The National Strategy (DCLG, 2016) argues that residents should receive protection, referring to the promise that all council and housing association tenants have

the option of returning to the estate, alongside two other options which include financial reimbursement for leaseholders or shared ownership schemes to enable homeownership. The GLA (2018, p.18) guidance for estate regeneration also states that residents should have a full right to return to estates following redevelopment.

Affordable housing

The GLA (2018, p.17) guidance for estate regeneration states that estate regeneration schemes should use the opportunity to provide as much additional affordable housing as possible by building at higher densities. The National Strategy (DCLG, 2016) does not include any guidance on how much of the regeneration sites should be given over to affordable housing or whether any existing assets should remain in council ownership. An obvious problem emerges from this: assets are transferred out of council ownership, thus further escalating the problem of a lack of local authority dwellings.

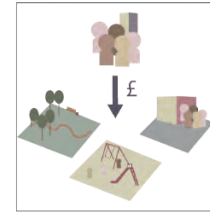
Transparency

The GLA (2015) state that the estate regeneration rationale has to be made clear to key stakeholders. The report states that in London often the rationale will involve providing more dwellings, however this may not be received well if residents are not offered something in return, such as improvements to existing dwellings. Regarding residential input, the report also states that engagement with residents should fully explain any transfer in housing stock, which may involve additional costs for housing association tenants.

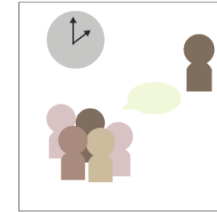
Another key principle in the GLA strategy is that the estate regeneration schemes should set out options appraisals in a clear way, to ensure that resident's feel that decisions are transparent and unbiased. The report also states that options appraisals should go beyond just considering the financial aspects of a scheme, which may often suggest that demolition and rebuilding is the most viable option, but also look at the social and environmental impacts of schemes as they give a broader picture and may point towards refurbishments providing greater social benefits.

Final say

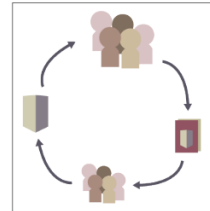
The GLA's (2018, p. 22) guidance on estate regeneration states that schemes involving demolition should go to a ballot by residents. This has subsequently been brought in as a requirement on all projects involving any demolition of social homes and the construction of 150 homes or more. A positive ballot is one where the majority of residents vote in favour of the scheme; there is no minimum turnout required. However, the vote only applies where GLA funding is used for a project, and therefore does not apply in every instance.



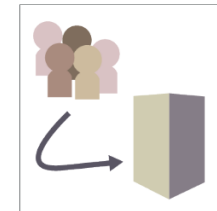
Benefits to the community
(Future of London, 2016)



Early consultation
(GLA, 2015; DCLG, 2016)



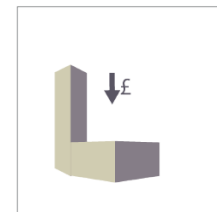
Genuine consultation
(IPPR, 2015; Savills, 2016; GLA, 2015)



Relocation of residents
(DCLG, 2016; GLA, 2018)



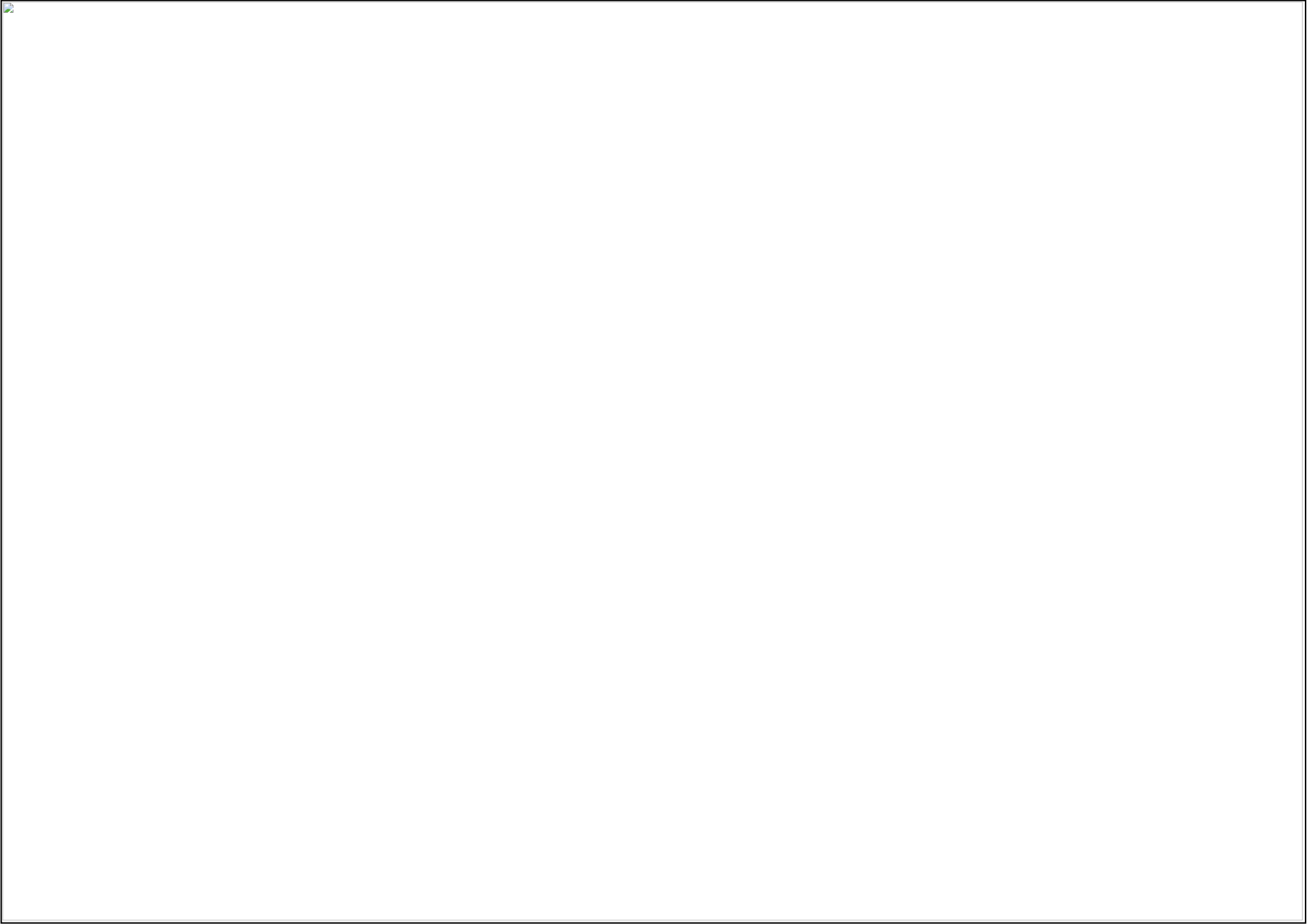
Final say
(GLA, 2018)



Affordable housing
(GLA, 2018)



Transparency
(GLA, 2015)



APPENDIX 5: REFERENCE LIST

- Altered Estates. (2016) *How to reconcile competing interests in estate regeneration*. Available: https://www.pollardthomasedwards.co.uk/download/AlteredEstates2016_FINAL_LR.pdf Accessed: 14th June 2019.
- Adonis, A. and Davies, B. (eds), IPPR. (2015) *City Villages: More Homes, Better Communities*. Available: https://www.ippr.org/files/publications/pdf/city-villages_Mar2015.pdf Accessed: 25th April 2019.
- Barnes, Y. (2015) A city village approach to regenerating housing estates in in Adonis, A and Davis, B (eds) *City Villages: More Homes, Better Communities*. pp. 54-62.
- Bell Phillips Architects. (2016) London Borough Tower Hamlets: Baroness Road Design and Access Statement. Available: https://development.towerhamlets.gov.uk/online-applications/files/9999991752070C74601F41E7706961FD/pdf/PA_16_02301_A1-PART_1-1194156.pdf Accessed: 15th June 2019.
- Bell Phillips Architects. (2016a) Borough of Tower Hamlets: Jubilee Street: Design and Access Statement. Available: https://development.towerhamlets.gov.uk/online-applications/files/1FB897A5630715DBB2BF1BBE8897108F/pdf/PA_16_02296_A1-PART_1-1194134.pdf Accessed: 15th June 2019.
- Boughton, J. (2018) *Municipal Dreams: The Rise and Fall of Council Housing*. London: Verso.
- Burnett, J. (1986) *A social history of housing, 1815-1985*. London: Methuen.
- Cartwright, R. (1980) *The Design of Urban Space*. London: Architectural Press.
- Centre for London (2018). Borough Builders: Delivering more housing across London. Available: https://www.centreforlondon.org/wp-content/uploads/2018/07/Borough_Builders-Report_Centre-for-London.pdf Accessed: 23rd August 2019.
- Coleman, A. (1985) *Utopia on trial: vision and reality in planned housing*. London: Hilary Shipman Publishing.
- DCLG (2016) *Estate Regeneration National Strategy*. Available: <https://www.gov.uk/guidance/estate-regeneration-national-strategy> Accessed: 19th August 2019.
- Edwards, M. (2016) The housing crisis and London. *City* 20(2): 222-237.
- Ellis, J. (2004) Explaining Residential Density. *Places* 16(2): 34-43.
- Fester Marmot, A. (1978) The Legacy of Le Corbusier and High-Rise Housing. *Built Environment* 7(2): 82-95.
- Forshaw, J. and Abercrombie, P. (1943) *County of London Plan*. London: Macmillan.
- Future of London. (2016). *Delivering Infill Development: A London 2050 briefing paper*. Available: https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/Delivering-Infill-Development.pdf Accessed: 14th June 2019.
- Goodchild, B. and Furbey R. (1985) Standards in housing design: A review of the main changes since the Parker Morris report (1961). *Land Development Studies* 3(2): 79-99.
- Garside, P.(1988) 'Unhealthy areas': Town planning, eugenics and the slums, 1890-1945. *Planning Perspectives* 3(1): 24-46.
- GLA (2015) Knock it down or do it up? The challenge of estate regeneration. Available: https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/KnockitDownOrDoltUp_0.pdf Accessed: 31st August 2019.
- GLA (2017) Housing in London: 2017: The evidence base for the Mayor's Housing Strategy. Available: <https://files.datapress.com/london/dataset/housing-london/2017-01-26T18:50:00/Housing-in-London-2017-report.pdf> Accessed: 30th March 2019.
- GLA (2017a) The London Plan. Available: <https://www.london.gov.uk/what-we-do/planning/london-plan/new-london-plan/download-draft-london-plan-0#Stub-177580> Accessed: 30th March 2019.
- GLA (2018) Better homes for local people. Available: <https://www.london.gov.uk/sites/default/files/better-homes-for-local-people-the-mayors-good-practice-guide-to-estate-regeneration.pdf> Accessed: 31st August 2019.
- Gray, F. (1976) Selection and Allocation in Council Housing in *Transactions of the Institute of British Geographers* 11(1): 34-46. Available: JSTOR, www.jstor.org/stable/621311. Accessed: 30th March 2019.
- Hanley, L. (2007) *Estates an Intimate History*. London: Granta Books.
- Haughton, G. and Hunter, C. (2004) *Sustainable Cities*. London: Routledge.
- Hollow, M. (2011) Suburban Ideals on England's Interwar Council Estates. *Garden History* 39(2): 203-217.
- IPPR. (2015) *City Villages: More Homes, Better Communities*. Available: https://www.ippr.org/files/publications/pdf/city-villages_Mar2015.pdf Accessed: 19th August 2019.
- Islington Architects. (2016) Triangle Estate: Design & Access Statement. Available: <https://planning.islington.gov.uk/NorthgatePublicDocs/00417135.pdf> Accessed: 15th June 2019.
- Jacobs, J. and Lees, L. (2013) Defensible space on the Move: Revisiting the Urban Geography of Alice Coleman. *International Journal of Urban and Regional Research* 37(5). Accessed: <https://onlinelibrary.wiley.com/doi/full/10.1111/1468-2427.12047> Available: 24th May 2019.
- Jones, B. (2010) Slum Clearance, Privatization and Residualization: the Practices and Politics of Council Housing in Mid-twentieth-century England. *Twentieth Century British History* 21(4): 510-539. Available: <https://doi.org/10.1093/tcbh/hwq025> Accessed: 30th March 2019.
- Karakusevic, P. and Batchelor, A. (2017). *Social Housing: Definitions and Design Exemplars*. Newcastle: RIBA.
- Lees, L. (2014) The death of sustainable communities in London? In: Imrie, R., and Lees, L. Sustainable London?: The future of a global city. Pp. 149-172.
- Lees, L. and Ferreri, M. (2016) Resisting gentrification on its final frontiers: Learning from the Heygate Estate in London (1974-2013). *Cities* 57: pp.14-24.
- McWilliam, C. (2015) The regeneration of great estates in in Adonis, A and Davis, B (eds) *City Villages: More Homes, Better Communities*. pp. 76-79.
- Murie, A. (2016) *The Right to Buy?: Selling off public and social housing*. Bristol: Policy Press.
- Newman, O. (1970) *Defensible Space*. New York: MacMillan.
- Office for Budget Responsibility. (2018) Economic and fiscal outlook. Accessed: https://cdn.ubr.uk/EFO_October-2018.pdf#page=50 Available: 15th May 2019.
- Office for National Statistics (ONS) (n.d) Table 116 Dwelling Stock: local authority stock by district: England 1994-2018. Accessed: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/773002/LT_116.xlsx Available: 19th August 2019.
- Olechnowicz, A. (1997) *Working-class housing in England Between the Wars: The Becontree Estate*. Oxford: Clarendon Press.
- Pollard Thomas Edwards (2014) King Square Estate: Design and Access Statement 2014. Available: <https://planning.islington.gov.uk/NorthgatePublicDocs/00340889.pdf> Accessed: 15th June 2019.
- Power, A. (2018) Overcoming the Stigma of Social Housing: Findings from Tenant Think Tanks. LSE: Case Report 115. Available: <http://sticerd.lse.ac.uk/dps/case/cr/casereport115.pdf> Accessed: 30th March 2019.
- Ravetz, A. (2001) *Council Housing and Culture: The History of a Social Experiment*. London: Routledge.
- Satchwell, H., and Cowan, L. (2017) Housing Estates and the Role of Urban Design. *Urban Design* 143: 18-20.
- Savills (2016) Completing London's Streets: How the regeneration and intensification of London's supply of homes and benefit residents. Available: <https://pdf.euro.savills.co.uk/uk/residential--other/completing-london-s-streets-080116.pdf> Accessed: 14th June 2019.
- Spicker, P. (1987) Poverty and depressed estates: A critique of Utopia on trial. *Housing Studies* 2(4): 283-292.

Stewart, J. (2005) A review of UK housing policy: ideology and public health. *Public Health*, 119: 525-534.

Taylor, P. (1979) 'Difficult to let', 'difficult to live in', and sometimes 'difficult to get out of': an essay on the provision of council housing, with special reference to Killingworth. *Environment and Planning* 11: 1305-1320.

Towers, G. (2000) *Shelter is not enough: transforming multi-storey housing*. Bristol: Bristol University Press.

Watt, P. (2013) 'It's not for us' Regeneration, the 2012 Olympics and the gentrification of East London. *City* 17(1): 99-118.

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APPENDIX 6: RISK ASSESSMENT FORM

BPLN0052 Major Research Project proposal template form

RISK ASSESSMENT FORM FIELD / LOCATION WORK



The Approved Code of Practice - Management of Fieldwork should be referred to when completing this form

<http://www.ucl.ac.uk/estates/safetynet/guidance/fieldwork/acop.pdf>

DEPARTMENT/SECTION LOCATION(S)

PERSONS COVERED BY THE RISK ASSESSMENT

BRIEF DESCRIPTION OF FIELDWORK: Fieldwork will include visiting social housing estates around London. Fieldwork may include talking to residents and distributing a questionnaire. It may also include talking to planning officers. Fieldwork will be undertaken by myself.

Consider, in turn, each hazard (white on black). If **NO** hazard exists select **NO** and move to next hazard section.
If a hazard does exist select **YES** and assess the risks that could arise from that hazard in the risk assessment box.

Where risks are identified that are not adequately controlled they must be brought to the attention of your Departmental Management who should put temporary control measures in place or stop the work. Detail such risks in the final section.

ENVIRONMENT

The environment always represents a safety hazard. Use space below to identify and assess any risks associated with this hazard

e.g. location, climate, terrain, neighbourhood, in outside organizations, pollution, animals.

Adverse weather, sun burn, sun stroke, slip hazards, assault, pollution, illness, getting lost, uneven pathways,

Is the risk high / medium / low ?
Medium

CONTROL MEASURES

Indicate which procedures are in place to control the identified risk

- work abroad incorporates Foreign Office advice
- participants have been trained and given all necessary information
- only accredited centres are used for rural field work
- / participants will wear appropriate clothing and footwear for the specified environment
- trained leaders accompany the trip
- refuge is available
- work in outside organisations is subject to their having satisfactory H&S procedures in place
- OTHER CONTROL MEASURES: please specify any other control measures you have implemented:

Take sunscreen and plenty of water when conducting fieldwork in the heat. Look at maps before hand and take mobile phone to prevent getting lost.

EMERGENCIES

Where emergencies may arise use space below to identify and assess any risks

e.g. fire, accidents

Loss/theft of property, accidents involving myself and others.

CONTROL MEASURES

Indicate which procedures are in place to control the identified risk

- participants have registered with LOCATE at <http://www.fco.gov.uk/en/travel-and-living-abroad/>
- fire fighting equipment is carried on the trip and participants know how to use it
- contact numbers for emergency services are known to all participants
- / participants have means of contacting emergency services
- participants have been trained and given all necessary information
- a plan for rescue has been formulated, all parties understand the procedure
- the plan for rescue /emergency has a reciprocal element
- OTHER CONTROL MEASURES: please specify any other control measures you have implemented:

I will ensure that I carry my mobile phone with me at all times to aid contacting emergency services. I will keep electronic equipment out of site whilst conducting field work to reduce the risk of equipment getting stolen or being lost.

FIELDWORK 1

April 2019

EQUIPMENT

Is equipment used?

N

If 'No' move to next hazard

If 'Yes' use space below to identify and assess any risks

e.g. clothing, outboard motors.

CONTROL MEASURES

Indicate which procedures are in place to control the identified risk

- the departmental written Arrangement for equipment is followed
- participants have been provided with any necessary equipment appropriate for the work
- all equipment has been inspected, before issue, by a competent person
- all users have been advised of correct use
- special equipment is only issued to persons trained in its use by a competent person

OTHER CONTROL MEASURES: please specify any other control measures you have implemented:

LONE WORKING lone working a possibility? Y N **If 'No' move to next hazard risks** **If 'Yes' use space below to identify and assess any risks**

e.g. alone or in isolation lone interviews. Difficult to summon help if danger arises. Personal attack. Is the risk high / medium / low? Low

CONTROL MEASURES **Indicate which procedures are in place to control the identified risk**

the departmental written Arrangement for lone/out of hours working for field work is followed

lone or isolated working is not allowed

/ location, route and expected time of return of lone workers is logged daily before work commences

/ all workers have the means of raising an alarm in the event of an emergency, e.g. phone, flare, whistle

/ all workers are fully familiar with emergency procedures

OTHER CONTROL MEASURES: please specify any other control measures you have implemented:

I will ensure that I tell a friend of my intended movements and update them on my progress at agreed time intervals.

FIELDWORK 2 April 2019

ILL HEALTH **The possibility of ill health always represents a safety hazard. Use space below to identify and assess any risks associated with this Hazard.**

e.g. accident, illness, personal attack, special personal considerations or vulnerabilities. Injury, asthma, personal attack. Is the risk high / medium / low? Low

CONTROL MEASURES **Indicate which procedures are in place to control the identified risk**

an appropriate number of trained first-aiders and first aid kits are present on the field trip

all participants have had the necessary inoculations/ carry appropriate prophylactics

participants have been advised of the physical demands of the trip and are deemed to be physically suited

participants have been adequate advice on harmful plants, animals and substances they may encounter

participants who require medication have advised the leader of this and carry sufficient medication for their needs

OTHER CONTROL MEASURES: please specify any other control measures you have implemented:

I will ensure that I take my asthma medication with me whilst conducting fieldwork. I will ensure that I wear appropriate clothing and footwear to prevent injury.

TRANSPORT **Will transport be required** **NO** **YES** **Move to next hazard** **Use space below to identify and assess any risks**

e.g. hired vehicles Accidents arising from lack of maintenance, suitability or training. Terrorist attacks on public transport. Personal attack. Is the risk high / medium / low? Low

CONTROL MEASURES **Indicate which procedures are in place to control the identified risk**

/ only public transport will be used

the vehicle will be hired from a reputable supplier

transport must be properly maintained in compliance with relevant national regulations

drivers comply with UCL Policy on Drivers http://www.ucl.ac.uk/hr/docs/college_drivers.php

drivers have been trained and hold the appropriate licence

there will be more than one driver to prevent driver/operator fatigue, and there will be adequate rest periods

sufficient spare parts carried to meet foreseeable emergencies

OTHER CONTROL MEASURES: please specify any other control measures you have implemented:

DEALING WITH THE PUBLIC	Will people be dealing with public	<input type="checkbox"/> Y <input type="checkbox"/> N	If 'No' move to next hazard If 'Yes' use space below to identify and assess any risks
<i>e.g. interviews, observing</i>	Personal attack, causing offence, being misinterpreted. Is the risk high / medium / low? Low		
CONTROL MEASURES	Indicate which procedures are in place to control the identified risk		
<input type="checkbox"/>	all participants are trained in interviewing techniques		
<input type="checkbox"/>	interviews are contracted out to a third party		
<input type="checkbox"/>	advice and support from local groups has been sought		
<input type="checkbox"/> /	participants do not wear clothes that might cause offence or attract unwanted attention		
<input type="checkbox"/> /	interviews are conducted at neutral locations or where neither party could be at risk		
<input type="checkbox"/>	OTHER CONTROL MEASURES: please specify any other control measures you have implemented: Interviews will be conducted in a public space to ensure the risk of person attack is reduced. Questionnaires will avoid sensitive material.		
FELDKWORK	3	May 2010	

WORKING ON OR NEAR WATER	Will people work on or near water?	<input type="checkbox"/> N <input type="checkbox"/> Y	If 'No' move to next hazard If 'Yes' use space below to identify and assess any risks
<i>e.g. rivers, marshland, sea.</i>	Examples of risk: drowning, malaria, hepatitis A, parasites. Is the risk high / medium / low?		
CONTROL MEASURES	Indicate which procedures are in place to control the identified risk		
<input type="checkbox"/>	lone working on or near water will not be allowed		
<input type="checkbox"/>	coastguard information is understood; all work takes place outside those times when tides could prove a threat		

<input type="checkbox"/>	all participants are competent swimmers		
<input type="checkbox"/>	participants always wear adequate protective equipment, e.g. buoyancy aids, wellingtons		
<input type="checkbox"/>	boat is operated by a competent person		
<input type="checkbox"/>	all boats are equipped with an alternative means of propulsion e.g. oars		
<input type="checkbox"/>	participants have received any appropriate inoculations		
<input type="checkbox"/>	OTHER CONTROL MEASURES: please specify any other control measures you have implemented:		
MANUAL HANDLING (MH)	Do MH activities take place?	<input type="checkbox"/> N <input type="checkbox"/> Y	If 'No' move to next hazard If 'Yes' use space below to identify and assess any risks
<i>e.g. lifting, carrying, moving large or heavy equipment, physical unsuitability for the task.</i>	Examples of risk: strain, cuts, broken bones. Is the risk high / medium / low?		
CONTROL MEASURES	Indicate which procedures are in place to control the identified risk		
<input type="checkbox"/>	the departmental written Arrangement for MH is followed		
<input type="checkbox"/>	the supervisor has attended a MH risk assessment course		
<input type="checkbox"/>	all tasks are within reasonable limits, persons physically unsuited to the MH task are prohibited from such activities		
<input type="checkbox"/>	all persons performing MH tasks are adequately trained		
<input type="checkbox"/>	equipment components will be assembled on site		
<input type="checkbox"/>	any MH task outside the competence of staff will be done by contractors		
<input type="checkbox"/>	OTHER CONTROL MEASURES: please specify any other control measures you have implemented:		
FELDKWORK	4	April 2019	

SUBSTANCES	Will participants work with substances	N	I 'No' move to next hazard
			I 'Yes' use space below to identify and assess any risks
<i>e.g. plants, chemical, biohazard, waste</i>	Examples of risk: ill health - poisoning, infection, illness, burns, cuts. Is the risk high / medium / low?		
CONTROL MEASURES	Indicate which procedures are in place to control the identified risk		
<input type="checkbox"/>	the departmental written Arrangements for dealing with hazardous substances and waste are followed		
<input type="checkbox"/>	all participants are given information, training and protective equipment for hazardous substances they may encounter		
<input type="checkbox"/>	participants who have allergies have advised the leader of this and carry sufficient medication for their needs		
<input type="checkbox"/>	waste is disposed of in a responsible manner		
<input type="checkbox"/>	suitable containers are provided for hazardous waste		
<input type="checkbox"/>	OTHER CONTROL MEASURES: please specify any other control measures you have implemented:		
OTHER HAZARDS	Have you identified any other hazards?	N	I 'No' move to next section
			I 'Yes' use space below to identify and assess any risks
<i>i.e. any other hazards must be noted and assessed here.</i>	Hazard: Risk: is the risk	<input type="text"/>	
CONTROL MEASURES	Give details of control measures in place to control the identified risks		
Have you identified any risks that are not adequately controlled?	NO	/	Move to Declaration
	YES		Use space below to identify the risk and what action was taken

Is this project subject to the UCL requirements on the ethics of Non-NHS Human Research?

If yes, please state your Project ID Number

For more information, please refer to: <http://ethics.grad.ucl.ac.uk/>

DECLARATION The work will be reassessed whenever there is a significant change and at least annually. Those participating in the work have read the assessment.

Select the appropriate statement:

/ I the undersigned have assessed the activity and associated risks and declare that there is no significant residual risk

/ I the undersigned have assessed the activity and associated risks and declare that the risk will be controlled by the method(s) listed above

NAME OF SUPERVISOR
Tobias Govert

****SUPERVISOR APPROVAL TO BE CONFIRMED VIA E-MAIL ****

FIELDWORK 5 April 2019