





Wornington Green

a briet for change





Wornington Green – a brief for change produced for Kensington Housing Trust by PRP Architects Ltd, October 2007



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The Vision for Wornington Green 2015

It is 2015

Walking north up Portobello Road, past Golborne Road, the street is alive with local specialist shops, market stalls, restaurants and small enterprises that define North Kensington. Among the shops, with a café frontage is the new landmark building – the Golborne Centre – providing a raft of local facilities including housing office, sustainability centre and community facilities. The Centre, the management hub for the new mixed tenure development, also fronts onto Athlone Gardens, a beautiful park where sports and recreational facilities complement the quieter Moroccan Garden and sensitive landscape design.

Wornington Green has been successfully assimilated back into the historical street network of the Portobello Road, Golborne Road and Ladbroke Grove area, reinforcing its links to the wider neighbourhoods of North Kensington, Notting Hill and Westbourne Grove. At its northern most point, Portobello Road now connects with Ladbroke Grove where the Barlby Road – Wornington Road roundabout is circled by residential and commercial enterprises, marking the top end of Portobello Road shops and market, and providing clear links through to Ladbroke Grove, Sainsbury's, and the Harrow Road beyond.

This architecturally-exciting development complements the Victorian terraces, adding to the dynamic make up of the neighbourhood. Wornington Green is considered highly desirable with the increased density levels easily absorbed thanks to the focus on high quality design and attention to place-making. The scheme boasts the full spectrum of accommodation choices including affordable housing, private housing for rent and sale and low-cost starter homes through shared ownership and equity buy-in schemes. Typical of North Kensington, the housing is visibly tenure-neutral and high cost homes for sale are located cheek-by-jowl with those for rent.

Car ownership is low due to improved public transport and energy consumption is reduced as a result of the high environmental standards achieved by the buildings. The inclusive approach to masterplanning involving residents and local stakeholders at every stage has paid off – residents are visibly proud to live at Wornington Green evidenced by their well cared for homes and surroundings, their active participation in the local Neighbourhood Management Company, and the buoyant market values.

Wornington Green is an exemplar inner-city, mixed use neighbourhood exhibiting high quality design in the built form, setting the bar for achieving environmental standards and demonstrating the qualities of an active and socially responsible community.

1.1 Wornington Green — a brief for change

Kensington Housing Trust (KHT), supported by its parent group, the Catalyst Housing Group (CHG), has embarked upon a comprehensive regeneration strategy for the Wornington Green estate. This document, A Brief for Change, sets out a framework for substantial change to take place. It establishes the strengths of the existing community, the site opportunities and constraints and KHT Board's aspirations and design guidance to ensure that any new development will complement the surrounding neighbourhood of North Kensington as well as providing high quality accommodation to meet the needs of current and future residents.

The regeneration is to be achieved by making the best use of land available, with an improved and sustainable environment physically, socially, and economically to create the sort of place where people will want to live, work and play. (KHT Board)

1.2 The Purpose of the Brief

The purpose of the Brief is to provide an informed framework and guidance for the masterplanning and development of Wornington Green. It pays specific attention to the characteristics of the neighbourhood and the residents who live there and sets out a raft of regeneration aspirations and standards to be addressed in the development of a detailed masterplan – the next stage of this project.

These aspirations and standards have been developed in the context of national, strategic and local regeneration policies – including the Housing Corporation (HC), Greater London Association (GLA), the Commission for Architecture and the Built Environment (CABE), and the Royal Borough of Kensington and Chelsea (RBK&C). The Brief indicates where additional contextual reports and surveys will be needed.

The document is also intended to assist potential developers understand the site and its community, the regeneration context, the constraints and opportunities, policy guidance and design standards.

Specifically it:

- Defines a vision and set of agreed aspirations;
- Provides a detailed profile of the physical aspects of the estate as it is now, its current relationship to its immediate surroundings and the wider area of North Kensington;
- Informs masterplanners, developers, and other interested parties of the constraints and opportunities presented by the site, and the scale and type of development expected, decanting and phasing expectations; and it
- Set outs the regeneration objectives and principles and the technical standards which will be required to meet them.

1.2.1 The Status of the Brief

While this Brief has no formal Planning Status, it has been developed in close consultation with the Wornington Green Steering Group comprising KHT Board members and RBK&C Cabinet members and officers including the Director of Planning.



1.2.2 Site Context and Design Guidance

The Brief considers the importance of acknowledging local features, site characteristics and the importance of integrating the new development into the existing landscape and built environment. It seeks to influence the design quality of a future Wornington Green by setting out a series of design strategies that will:

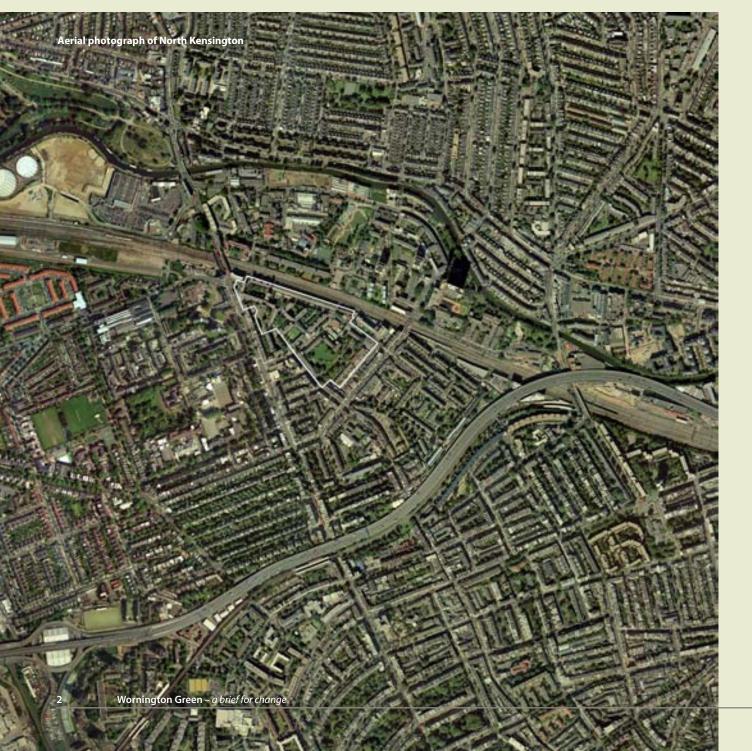
- Ensure a complementary design to the surrounding Victorian street patterns and house types;
- Enhance or make best use of the local features, mature trees and Athlone Gardens; and
- Provide design guidance on issues including scale, density, massing, height, landscape, layout and access in relation to neighbouring buildings and the surrounding area.

1.2.3 Specialist Input

This brief has been prepared with the assistance of Campbell Reith, structural engineers, who have advised on infrastructure and services; and GVA Grimley who have advised on market values and retail issues.

Their findings in this report are based mainly on desk-top studies. Additional studies will be required for:

- Ground conditions, contamination and remediation.
- Services and utilities.
- Traffic impact assessment and access arrangements.
- Environmental impact assessment.
- Socio-economic assessment.



1.3 Background to the Estate

1.3.1 Site Location

The Wornington Green Estate is located in inner London, within the Golborne Ward, at the northern end of the Royal Borough of Kensington and Chelsea. The triangular site is bounded to the north by the mainline west railway line to Paddington, to the south-west by Portobello Road, and to the south-east by Golborne Road. At its northern pinnacle the estate addresses Ladbroke Grove at the Barlby Road roundabout.

1.3.2 Site Description and Ownership

Ownership

The site is mainly owned by Kensington Housing Trust. Founded in 1926 by wealthy philanthropists, KHT has since grown and developed, and currently manages around 2,500 homes within the Borough. Of this housing stock, Wornington Green is the largest single estate representing 21.6% of the total KHT stock, with 538 homes.

RBK&C owns key areas of the site bounded by the Wornington Green estate, including Athlone Gardens, the sunken football pitch and the Venture Centre. This comprises a total area of about 1.99ha. The potential for land swaps to release land for the first stage of the development is currently being discussed with RBK&C, which would bring the full developable area to 5.66ha.

Built Form and Dwelling Types

The existing Estate houses 1707 residents in 538 homes, predominantly flats, built in stages between 1964 and 1985. The majority of the flats are arranged in long 4-6 storey blocks and are characterised by shared entrances, common stairwells and external horizontal deck access, typical of much local authority building of this period. The housing mix on the estate is mono tenure – all affordable housing – and consists of:

- 210 one bed flats
- 154 two bed flats
- 128 three bed flats
- 8 four bed flats
- 38 four bed houses

The majority of the estate, the fourteen blocks situated north of Telford Road between Ladbroke Grove and Wornington Road, are arranged around large external courts that are either car-parks or landscaped spaces, rather than fronting traditional streets. Thompson House, Pepler House and Edward Kennedy House front onto Wornington Road and back onto the mainline west-bound railway from Paddington. Telford, Wheatstone and Faraday Houses back onto Athlone Gardens, a council owned and managed park. The only houses within the Estate are on Munro Mews and Wornington Road. These have small private gardens and do not conform to the traditional arrangement of fronting streets.

Community Services and Facilities

In addition to the residential accommodation the following community services and facilities, owned by KHT, are also included within the redevelopment boundary:

- A small abandoned portacabin (previously used for youth work) beside Thompson House;
- Two shop units under Paul House accessed from Ladbroke Grove;
- KHT Housing Office located on the ground floor at the southern end of Telford House; and the
- KHT Housing Office's Annexe located in a temporary porta-cabin in the courtyard between Chesterton and Lionel House.

Located also within the redevelopment boundary, but owned by RBK&C, are:

- Athlone Gardens, a small public park accessed from Wornington Road and Portobello Road;
- The Venture Centre and Adventure Playground located on Wornington Road adjacent, but not linked to Athlone Gardens;
- A sunken, concrete play space opposite the Kensington and Chelsea College on the corner of Wornington Road and Munro Mews;

Located just outside, but adjacent to the redevelopment boundary are:

- Kensington and Chelsea College located on Wornington Road opposite Athlone Gardens;
- The Open Door Friendship Centre, located between Olive Blythe House and 300 Ladbroke Grove.
- Local shops at the Barlby Road roundabout on Ladbroke Grove; and
- Lock up garages in Munro Mews, many of which are used for storage by market stalls on Golborne Road.

1.3.3 Historical Context

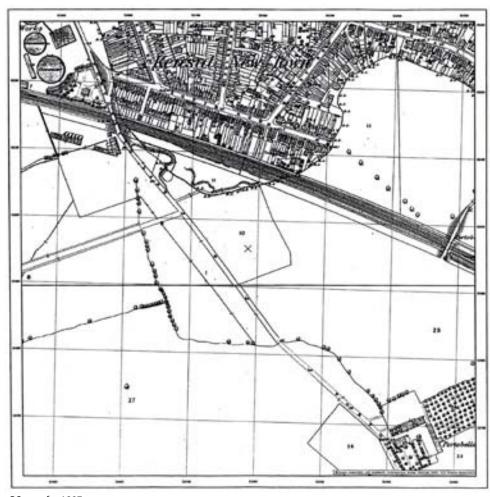
The estate is located on what, historically, were the fields of Portobello Farm. Up until the 1860s, Portobello Lane, now Portobello Road, was a country lane and the primary route north, linking housing at Kensal Green to the Kensington Gravel Pits, now Notting Hill Gate. With the Paddington branch of the Grand Union Canal opening in 1801 and the Great Western Railway in 1838, it wasn't until the world's first underground railway made an appearance in 1864 that the first signs of development appeared on the site.

By 1879, most of what is now Wornington Green Estate was covered by Victorian terrace housing. The built form reflected the scale and design of the traditional London terrace, although the housing was significantly smaller in plan form. Housing fronted Portobello Road and Wornington Road as the primary routes, with a long row of houses backing onto the railway. Wornington Road and Portobello Road continued through the site to create a junction with Ladbroke Grove. The three-storey houses with basements were built for the new middle classes who never arrived. Multi-occupancy soon filled this vacuum with many families living in just one room and sharing kitchen and toilet facilities. In 1930 Southam Street alone had 130 houses accommodating 625 families – some 2,386 people.

The area was razed to the ground in a programme of slum clearance in the 1970's when the current blocks of flats and houses were constructed for Kensington Housing Trust.

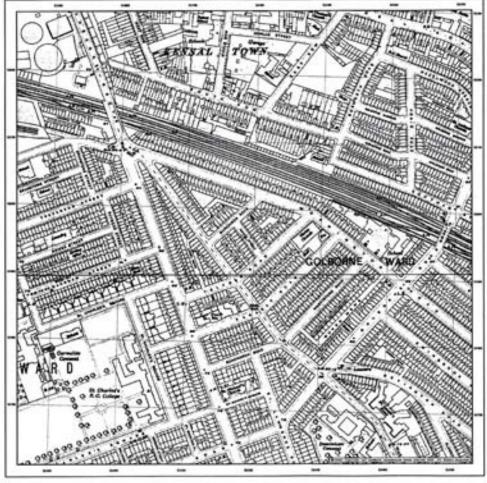
The traditional, grid street pattern was removed and new vehicle and pedestrian routes were created which followed the principles of 'Radburn' and 'streets in the sky'. The built form consists of large blocks of flats, built around landscape courtyards and parking courts, with single points of entry and walkway access serving multiple flats resulting in a tenure mix and built form that physically segregates the estate from the surrounding neighbourhood, creating an 'island' community. The long access decks and single-point entrances contribute to the perception of insecurity.

There have been a number of substantial improvements over the last fifteen years in an attempt to ameliorate its core design problems. These have included the removal of some of the overhead walkways and new communal entrances, and security systems to minimise public access. Invariably, however, these improvements have not been seen to successfully improve the quality of life for residents or to resolve the intrinsic design weaknesses of the existing estate.



OS map for 1897





OS map for 1972

1.4 Reasons for Change

North Kensington is a thriving and multi-cultural neighbourhood with long-established Spanish, Portuguese and Moroccan communities living among the British and Afro-Caribbean communities. Golborne Road, running through the centre of the ward, acts as a dynamic catalyst offering many Moroccan and Portuguese shops and cafes and the street market. However within this community are high levels of overcrowding, poverty, poor health, low educational achievement, and unemployment (MORI Survey 2005). Government ward deprivation indices place Golborne Ward within the top 10% nationally. And although Golborne Ward has benefited from a number of government-funded programmes over the years including: Housing Action Renewal, City Challenge, SRB 6 and Sure Start – providing a raft of local community initiatives - these programmes have merely scratched the surface of deprivation and failed to make substantial long-lasting socioeconomic improvements.

At the heart of this deprivation lies a poor living environment and overcrowding – and Wornington Green is central to this. Significantly different from the rest of North Kensington, with its poor physical appearance of the built form and surrounding environment, its tenure mix – comprising 100% affordable housing is untypical of the surrounding successful mixed-tenure street properties.

While the majority of Wornington Green residents enjoy living on the estate (evidenced by low turnaround and voids) the unit mix of the accommodation on the estate no longer meets their requirements (KHT Housing Needs Survey 2005); there is both significant under-occupancy, primarily by an ageing community, and also significant overcrowding by younger families and particularly the Moroccan community who enjoy large and multi-generational households. Security is considered poor – a perception which is reinforced by sporadic, significant incidents



of petty crime and anti-social behaviour around the estate; and the environment unfriendly with the several "courtyards" and inner spaces unusable. In addition the estate is imbued with a history of minimal maintenance and management. Located in the heart of the estate is the RBK&C owned Venture Centre offering a range of local activities, yet this is a poorly designed and located building, physically run-down and expensive to run. Its internal spaces are unsuitable and inadequate.

Athlone Gardens is a poorly-laid out and little-used public park. The surrounding buildings back, rather than front onto the park, offering little natural surveillance. The play areas are of poor quality and under-used. However the park has benefited recently from some minor improvements including lowering of the brick planters and renewed planting resulting in greater use at the Portobello Road end predominantly by Moroccan men

sitting around and talking and spilling over from the adjacent Moroccan café.

The highways infrastructure is poorly designed with a circular inner road and no through access from the two principal roads Wornington Road and Portobello Road through to the main north, south highway of Ladbroke Grove – thus adding to the sense of an "island community".

Faced with the requirement to bring the estate up to Decent Homes Standards – demanding substantial investment yet offering little to resolving the fundamental design flaws or socio-economic benefits – the KHT Board agreed to carry out a full Options Appraisal to establish the best way to achieve substantial and long-lasting regeneration to end the physical and social stigma attached to the estate and to integrate the estate into the surrounding neighbourhood.



2.1 Introduction

The regeneration of Wornington Green is a large-scale and controversial project in an area of London steeped in local history and community activism. Building consensus for change with the residents, their families and friends and neighbours has been a prime driver from the start. KHT's regeneration aims are broad, incorporating socio-economic benefits as well as physical improvements and KHT recognises the necessity of a collaborative approach – there are many players, local and strategic, who can assist this process. A considerable amount of trust has been developed - through consultation - with residents and stakeholders in putting together this document. It is expected that this high level of consultation be maintained throughout the masterplanning and construction stages. PPG 12 emphasises the weight accorded to determining a planning application where there is an audit trail demonstrating that the documents have been prepared in consultation with the public.

The process of preparing this Brief for Change has also involved seeking the views of a number of government departments, agencies and individuals, and balancing their interests in making recommendations for the development of the site within the overall policy framework.

These have included Kensington Housing Trust, Catalyst Housing Group, Wornington Green residents, local councillors, the local Member of Parliament, local voluntary organisations and faith groups, the Golborne Forum, the Wornington Green Steering Group, RBK&C, members and officers, the Housing Corporation and the GLA.

The development of regeneration proposals for Wornington Green is framed by the need to consult throughout with residents, stakeholders, statutory bodies and the client bodies, in order to identify the most sustainable outcome for the estate. Consultation, to date, has included initial research and information gathering to determine the existing attitudes of residents and stakeholders and ongoing consultation as the regeneration proposals have developed. It is expected that a further and comprehensive Consultation Strategy will be developed and implemented throughout the Masterplanning process.

A separate report is available chronicling the various consultation events to date, summarising key issues as they have arisen. A Consultation Log has also been kept detailing specific resident queries and concerns and identifying how these have been resolved, or incorporated into the design specifications.

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KHT Board's "Vision" 2.2

At the start of the project the KHT Board drew up a vision entitled "Key Principles for Consideration", listing a number of objectives which will contribute to the achievement of a balanced and sustainable community. These are:

Residents

- · Residents must be fully involved in all stages of the regeneration process.
- Proposals must reflect local equality and diversity issues.
- Mixed tenure development for a range of income groups.
- All existing tenants to be offered a new or refurbished home.

Homes

- · No loss of affordable housing.
- High standards, improved facilities and future flexibility.
- · Mix of sizes and types to reflect housing need and address overcrowding.

External environment

- Provision of commercial, retail, community and other buildings.
- Community development programme to be properly resourced.
- · Review of parking provision and transport links.
- Creation of a safe and secure environment.
- Use of non-KHT owned surrounding sites if feasible.
- Retention of a significant element of public/private open

Wornington Green – a brief for change



Open Day 4 Nov 2006

2.3 Socio-Economic Profile

The KHT Board has recognised that regeneration of the built environment alone cannot deal with poverty, inequality and social exclusion, these issues can only be addressed through the better integration of all strategies and programmes, partnership working and effective community involvement.

PPS1: Delivering Sustainable Communities highlights social cohesion and inclusion as an important aspect of achieving a Sustainable Community. Development which creates socially inclusive communities, including suitable mixes of housing should:

- Ensure that the impact of development on the social fabric of communities is considered and taken into account.
- Seek to reduce social inequalities.
- Address accessibility (both in terms of location and physical access) for all members of the community to jobs, health, housing, education, shops, leisure and community facilities.
- Take into account the needs of all the community, including particular requirements relating to age, sex, ethnic background, religion, disability or income.
- Deliver safe, healthy and attractive places to live, and
- Support the promotion of health and well being by making provision for physical activity.

To assist the understanding the socio-economic, the demographic profile of the estate and current and future housing need, KHT commissioned a number of studies. These have included:

- The MORI Survey, completed in 2003; and
- The Housing Need Survey, completed in 2005.

The following overview provides insight into some of the socioeconomic issues faced by residents of the estate.

The significance of this data to the Wornington Green regeneration brief is the need to ensure that the consultation process and design development responds to age, gender and ethnic-specific issues of the residents, particularly the young and the elderly, the unemployed and those with a disability, who comprise significant proportions of the residents.

2.3.1 Demographic Profile

The demographic profile of Wornington Green is similar to Golborne Ward as a whole with the following key characteristics:

- 40% of the population are under 24;
- 61% are female;

When compared with results from the UK as a whole there are some key differences. The Estate has a higher proportion of people under the age of 24 (32% across the UK) and a gender bias with approximately two thirds of the estate are female. The tenant population surveyed in 2003 is also ethnically diverse compared with both London and the UK, comprising of:

- 54% white (including Irish, Portuguese and Spanish).
- 23% Black or Black British, and
- 15% North African Arabic-speakers, of which 11% are Moroccan.

This is also reflected in the 38% of tenants whose first language is not English and the diversity of languages spoken on the Estate, with over 28 languages, apart from English.

The development process will therefore need to ensure that considerations for the different ethnic groups are understood and addressed, in terms of communication, design and future management arrangements.



Household characteristics

Household characteristics on Wornington Green identify a number of key characteristics of the residents on the Estate:

- Single person occupancy is in line with the UK average at 28%.
- More households contain dependent children than nationally, 35% compared with 29%.
- There is twice the proportion of one-parent families on Wornington Green than found nationally (15% on the Estate against 7%) and this is more likely to occur amongst households of black ethnicity at 29%.
- 14% are single, elderly adult households, and
- 14% have 3 or more adults.

Long-term residence on the Estate is common, with 77% of residents who have been on the Estate for six years or more, compared with 63% across England as a whole. 32% of residents have lived on the Estate all their lives, or more than 20 years.

Employment

62% of the population of the Estate is economically inactive. This includes:

- 27% who are fully retired;
- 13% who are long term sick/disabled;
- 18% who are at home/not seeking work; and
- 4% who are full time students.

Unemployment is a significant problem for tenants on the Wornington Green Estate. Only a quarter of all the tenants on the Estate are employed corresponding to 31% of adult tenants. This is lower than Golborne Ward (40%) and the country as a whole (59%). The ILO unemployment rate (the unemployed as a proportion of the economically active), is very high at 26% (compared with 6% nationally), though this is typical for Golborne Ward.

57% of households have no member who is working (compared with 18% nationally) and 74% receive at least one benefit (excluding child benefit) which is higher than the national figures.

Mean weekly income is lower than average for both England as a whole and London. This is reflective of the occupations of the main wage earner in households. Compared to national figures there are more people in elementary occupations (26% compared with 12%) and fewer in professional, management or associate professional positions (12% compared with 40%). The regeneration process will need to offer employment opportunities. This might be through opportunities for local labour apprenticeships, CTI or new community facilities, for example. Further options should be pursued through the programme.

Health

About 23% of residents have a long-term illness, health problem or disability, and this is higher than overall for the Golborne Ward (15%) and nationally (19%). These health problems are more prevalent among the elderly and those who live alone and, significantly, those who are unemployed (53%). The implications for the design brief are significant: 10% of all new homes will be required to be wheelchair-accessible homes to meet the current need, while all other new homes should be designed to Lifetime Homes Standard to enable people to stay in their homes for as long as possible, and to ensure future flexibility.

Community Involvement

There is a lower level of community cohesion experienced on the Estate at 41% compared to 51% nationally. Households without children state that they feel less involved (68%) than those with children.

The regeneration process is an ideal opportunity to support residents and create opportunities for the development of community activities, building on existing networks and contacts within the Estate.

Community Safety

Golborne Ward has a high incidence of both vehicle and street crime, similar to other areas in the Borough. However, instances of burglary are low, by comparison. This may be a result of the significant differences in socio-economic conditions throughout the borough. (Source: A Picture of Our Community – Kensington and Chelsea Partnership 2005).

The southern boundary at Munro Mews is an undesirable backroute known to the police for 'dodgy dealing' and car chases. Golborne Road is also known for its incidences of crime.

In recent years, police initiatives in association with KHT, have reduced crime generally in the area, but car crime, burglary, assault and mugging is still significant and above the national figures. As a result 70% of the residents feel unsafe walking alone around after dark, which compares with 50% across Golborne Ward and 32% nationally.

The implications for the redevelopment of Wornington Green suggest the need for a design which minimises the opportunity for incidents of crime and anti-social behaviour. The traditional street layout model, where public, semi-private and private realms are clearly defined, homes face the streets and public spaces have good natural surveillance can contribute to creating a safer environment. Additionally, secure parking, well-lit streets and secure homes will be required to reduce the incidence of burglary, assault and mugging.

2.4 Consultation Strategy

PRP was appointed to deliver an Options Appraisal and Consultation Strategy to assist the KHT Board determine the most appropriate way forward for comprehensive regeneration. One of PRP's first tasks was to work in partnership with the KHT Board to produce a Consultation Action Plan and delivery structure, mapping local groups and stakeholders and the hierarchy of groups to be consulted.







2.4.1 Consultation with residents and local stakeholders

In the MORI survey residents indicated that their preferred method of being kept informed was through a newsletter. A regular newsletter is used to keep residents up to date with the regeneration proposals. In addition the regeneration manager is located on site and operates an open-door policy to enquiries.

A number of consultation events have been held including:

- A stall at the KHT Tenants' Association AGM, September 2005.
- Walkabouts on the estate, November 2005.
- Interviews with representatives of the Tenants Association and Tenants' Forum.
- Interviews with local community stakeholders.
- Presentations to the Venture Centre Management Committee, the Golborne Forum and RBK&C Regeneration Exchange.
- Public exhibition at the Residents' Open Day November 2006.
- Three Design Workshops, February and March 2007, and
- Public exhibition in June 2007.

At the start of the process one to one interviews were held with key local stakeholders who either lived or worked on the estate or who provided a service to its residents. These stakeholders had a specific interest in the future of Wornington Green and detailed knowledge and understanding of the opportunities and constraints. Interviewees included:

- Members of the Residents' Group on the estate.
- Representatives of community organisations on the estate.
- Local councillors and the MP.
- Advice agencies.
- Community and religious groups working with the Moroccan community.
- The Golborne SRB.
- Sure Start.
- RBK&C Housing and Regeneration officers.
- RBK&C Race Relations Team, and
- The Police Community Safety Team.

Issues raised by residents and stakeholders can be summarised as follows:

- Disrepair, lack of maintenance, and a history of lack of investment in the estate.
- Extreme overcrowding due to extended families.
- The lack of move-on options for the younger generation.
- No opportunities to buy homes, or a stake in them.
- Lack of security due to the design of the estate long access decks and multiple entrance points coupled with plenty of cover for unsociable activities.
- Homes in need of modernising to deal with the damp and

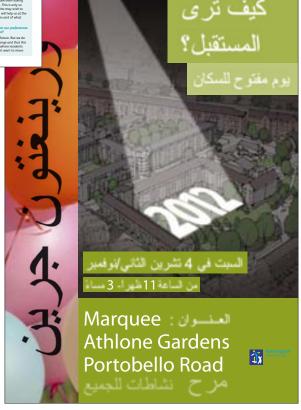


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cold and noise transfer.

- Athlone Gardens is poorly designed and not well used.
- A new community centre is needed to provide facilities for the whole community.
- Major regeneration is probably the right approach, but only if the design is right and the impact managed.
- A combination of refurbishment and redevelopment is probably a safer bet – Pepler House residents are particularly keen not to lose their block.
- Younger tenants are generally keen on full regeneration and the opportunities it will bring.
- Older people, many of whom are under-occupying, are very worried about the disruption to their lives and reluctant to countenance redevelopment.
- The need to keep people informed at all times, even when nothing is happening, and
- Advice to use the community infrastructure to reach residents

There is a clear expectation at the masterplanning stage that consultation with residents and stakeholders will continue to build on the work undertaken during the Options Appraisal and Feasibility stages.



2.4.2 Wider Stakeholders

PRP and KHT have held joint meetings with a number of RBK&C departments including Housing, Planning, Transport and Highways, Waste Management and Leisure, Regeneration and Valuers.

Departmental aspirations and planning guidance for the regeneration of Wornington Green have been incorporated into this document.

"Redevelopment proposals should transform Wornington Green into a showpiece of best practice for urban housing redevelopment." (RBK&C Head of Planning)

2.5 The Options Appraisal

In order to identify an appropriate approach for the regeneration of Wornington Green, KHT commissioned PRP to carry out an Options Appraisal involving a number of studies including:

- Site Appraisal
- Options Appraisal
- Market Testing and Feasibility
- Density and Design Testing

The purpose of the Options Appraisal was to assess the long-term requirements for physical and financial sustainability of the existing housing stock, the potential for extensive refurbishment, or partial/complete redevelopment of Wornington Green. All options sought to resolve the key issues on the site, addressing both the current and future needs. PRP adopted a "bookends" approach with minimum intervention to meet Decent Homes Standard as the baseline.

The options considered included:

Option 0: Decent Homes Standard.

Option 1: Full Refurbishment and Remodelling.

Option 2: Focused Redevelopment, Refurbishment and

Remodelling.

Option 3: Extended Redevelopment and

Refurbishment.

Option 4: Full Redevelopment.

All options were tested quantitatively, in terms of cost and meeting housing need, and qualitatively in terms of meeting KHT Board's vision.

In March 2007 the KHT board voted in favour of pursuing full redevelopment, in preference to refurbishment or partial redevelopment, as a means of securing long term viability and achieving their vision for the estate.

A copy of the Options Appraisal is available as a separate document.

A copy of the Density and Design Testing is available as a separate document.





2.5.1 The Options

Option 0

Decent Homes Standard		
Refurbished	538 units	
New Build	0 units	
Total Dwellings	538 units	
Density	98 dw pr ha – 295 hab rooms per ha	







Option 1

Full Refurbishment and Remodelling		
Refurbished	538 units	
New Build	0 units	
Total Dwellings	538 units	
Density	98 dw pr ha – 295 hab rms pr ha	



Perspective Plan



Option 2

Focussed Redevelopment and Refurbishment

Refurbished 372 units
New Build 275 units
Total Dwellings 647 units
Density 180 dw pr ha – 351 hab rms per ha







Option 3

Extensive Redevelopment and Refurbishment

Refurbished 151 units
New Build 778 units
Total Dwellings 929 units
Density 169 dw per ha – 481 hab rms per ha



Perspective



Option 4

Full Redevelopment

Refurbished 6 units
New Build 1097 units
Total Dwellings 1103 units
Density 201 dw per ha – 569 hab rms per ha



Perspective

Venture Centre

Can be re-provided in phase1 or retained until later in the build programme.

Athlone Gardens

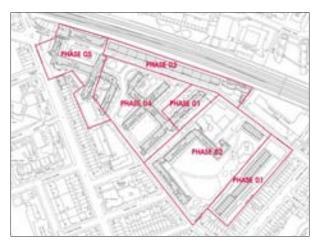
Will be fully re-provided in phase 2 before any construction occurs on the existing open space.



Plan

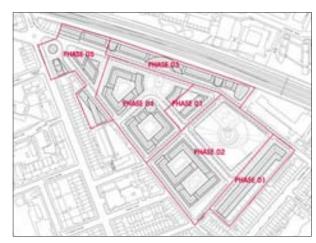
Option 4 Phasing

Phasing Demolition Option 4		
Phase 1 decant	71 units	
Phase 2 decant	117 units	
Phase 3 decant	112 units	
Phase 4 decant	135 units	
Phase 5 decant	110 units	



Plan – Demolition

Phasing New Build		
Phase 1 New-Build	189 approx	
Phase 2 New-Build	204 approx	
Phase 3 New-Build	264 approx	
Phase 4 New-Build	268 approx	
Phase 5 New-Build	179 approx	



Plan – New Build

2.5.2 What If's



Retained

- Athlone Gardens re-located on Portobello Road providing better integration with the surrounding area but limiting built form along Portobello Road
- Venture Centre reprovided in a new standalone building but not directly adjacent to Athlone gardens



Combined

- Athlone Gardens re-located on Portobello Road providing better integration with the surrounding area but limiting built form along Portobello Road
- Venture Centre reprovided within the ground floor of a new residential block or relocated off site





2.5.3 Options Appraisal Summary

The options detailed in the previous pages include refurbishment and redevelopment models. The Decent Homes model (Option 0) KHT is bound to deliver as a minimum to ensure compliance with current legislation. The full refurbishment model (Option 1), offers substantial improvements to the built form with new entrances and staircases, thermal and environmental improvements. However neither of these refurbishment models tackle the significant issue of overcrowding which would remain unresolved unless a radical reletting plan was adopted allocating existing households into more appropriate sized accommodation, a scheme which would almost certainly prove disruptive and unpopular to residents.

The mixed refurbishment and redevelopment models (Options 2 and 3) are based on an incremental development strategy starting at the north end of the estate, offering substantial improvements to the junction of Portobello Road, Wornington Road and Ladbroke Grove and bringing in mixed use and mixed tenure opportunities. The ratio of refurbishment to redevelopment in these options was not set in stone and could be further explored and tested to achieve a balance that meets resident and stakeholder aspirations. The approach detailed in both options could equally be extended into the full redevelopment model (Option 4) offering comprehensive regeneration of the estate.

The delivery of Option 4 assumes a construction start from the south end of the estate at Munro Mews, currently housing the lowest number of tenants and offering the greatest opportunity for redevelopment. Option 4 doubles the density of the site offering opportunities to address housing shortages within the capital.

A number of variant options were also considered, including Option 4H which retained and refurbished the more popular housing – Edward Kenedy House, Pepler House and the houses on Munro Mews – and redeveloped the rest of the estate. The "What if?" Options went a stage further and challenged some of the core assumptions – if a small reduction of open space was permitted, Athlone Gardens could substantially be retained in its existing location fronting onto Portobello Road, but broadened to take in sites currently occupied by Telford, Wheatsone and Faraday Houses.

The early relocation of the Venture Centre and Adventure Playground, either within the current area or elsewhere within Golborne Ward, offers greater flexibility for redevelopment providing immediate decanting opportunities.

It should be emphasised that the Options Appraisal exercise was not a masterplanning exercise. It set out to provide a framework for decision-making taking into consideration a number of factors including:

- poor design,
- · overcrowding,
- poor thermal efficiency,
- poor access and environment and
- severe overcrowding
- the planning and design guidance that will influence density, massing, heights, tenure and commercial mix, infrastructure, sustainability, parking and the environment;
- resident and stakeholders views;
- site constraints and
- the cross-subsidy that will be required to deliver new social housing.

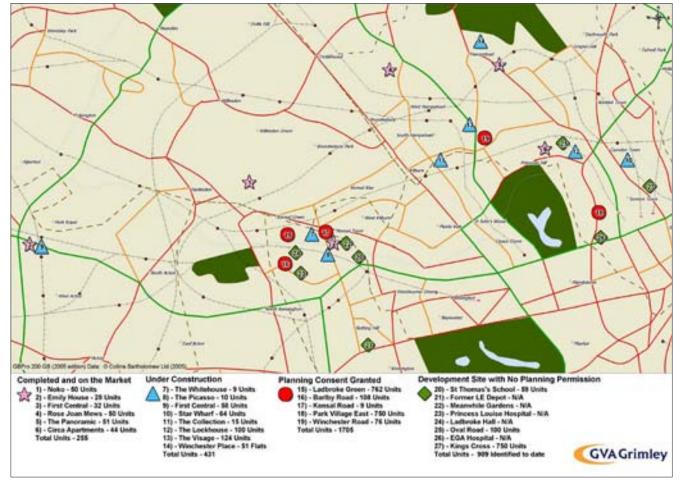
The four main options were financially appraised and compared in terms of construction costs and cross-subsidy values and a set of qualitative criteria drawn from the KHT Board's key principles for regeneration. On the basis of this the KHT Board took the decision to go for full redevelopment of the estate.

2.0 Progress to Date



2.6 Understanding the Market Context

The property market context of Wornington Green is an important consideration for the future of the community as the success of the development will rely on cross-subsidy from the private market to support the reprovision of affordable housing. Wornington Green is located next to some of the highest residential property values in London. However, it also lies within an area which displays a considerable range in prices. In the immediate locality, it sits within an area in transition, in terms of sale prices and rents. The scale and significance of the Wornington Green estate itself means that its future direction can have a considerable influence on potential sale prices and rents, both on and off the estate.



Developments in North-West London 2007

Fundamental Market Conditions

The area around Wornington Green benefits from a number of fundamental conditions that support a potential private market role. These include:

- A buoyant Greater London economy with a generally strong property market, strong employment activity and the continuation of strong employee incentives in the financial services sector.
- Strong access to public transport via bus, tube and overland rail services. There is rapid access to London's primary employment, entertainment, shopping and cultural offerings.
- A range of nearby local shopping, dining and entertainment options and the Portobello Road market are in close proximity to the estate.
- The fabric of streets, open spaces, development blocks and buildings in the Notting Hill and Ladbroke Grove area provide a valued built environment.
- A strong local property market across a range of residential unit sizes for both sale and rental properties.

Property Sale Prices in W10

There is considerable variation in prices in the W10 area reflecting a range of property conditions and types. Significantly, W10 encompasses a range of neighbourhoods including North Kensington and Ladbroke Grove close to Wornington Green, and Queens Park and Kensal Green to the north of the western railway main line. There are a number of neighbourhood sub-markets within this postal code. Property prices in the W10 postal code area have been characterised by:

- A long term growth trend.
- An increase in average prices from £100,000 in 1996 to £390,000 in 2007.

Property Sale Prices in W11

The W11 area includes sections of Notting Hill, Westbourne Grove and Holland Park to the south and east of Wornington Green. Property prices in this area have been characterised by:

- A long term growth trend.
- An increase in average prices from £200,000 in 1996 to more than £750,000 in 2007.
- A sharp upward departure from rising national trends, widening since 2000.
- A widening of the gross gap between local and national trends with local prices now more than £500,000 higher than national averages.

For all property types, average prices are considerably higher in W11 than in W10. Given the geography of W10 and the range of neighbourhoods it encompasses to the north, it is likely that prices immediately around Wornington Green will trend towards the higher end of the range for W10 and towards some of the more modest prices found in W11, particularly given the distance from the highest price international housing market locations in Holland Park and South Kensington.

Rental Values

This relationship is also reflected in rental prices. For all property types, average rents are considerably higher in W11 than in W10. Again, rents local to Wornington Green will be influenced by the Notting Hill market and it is likely that rents immediately around Wornington Green will trend towards the higher end of the range for W10 and some of the more modest prices found in W11.

Prices for New Build Properties in the Area

Research on new build properties in the Wornington Green area also revealed two important factors:

- There are a limited number of new developments in the vicinity on the market at present, as compared with other London markets such as Docklands.
- However, there are a number of planned developments and allocated Local Plan sites which will bring new units to the market over the next few years.

2.6.1 Future Market Conditions

Although there are fundamental market conditions which support the potential of private market residential development at Wornington Green there are a number of considerations which will determine what future price levels will be supportable, and therefore what the contribution may be. These include:

The context is in transition – there is continued residential renovation and new development on windfall sites in and around Notting Hill to the south. Although prices are continuing to rise there is a perception that the rate of increase has and will continue to slow. There is also a perception that prices to the south in W10 may continue to rise and at a faster rate than in W11. It is perceived that the W10 market has yet to reach its full potential.

Kensington Housing Trust has the opportunity to consider regeneration options presented by medium and long term price potential as well as immediate, short term market conditions when assessing future development options at the Wornington Green Estate.

The retail context is in transition – immediate retail rents are relatively modest. There is growing market interest in Golborne Road and Portobello Road north of the Westway as a retail location.

There are emerging plans for improvements to Golborne Road and its street market.

Improvements to access, visibility and the quality of the public realm will positively affect future retail rental values on these streets and any retail provision at Wornington Green.





The unique character of the core retail and street market area of Portobello Road also offers a nearby regional destination that has the potential to add to the appeal of the location generally.

Surrounding developments will affect future prices – key local developments will affect potential market prices at Wornington Green. The future development of the former Gas Works site and Sainsbury's site at Canal Way to the north-west will affect perceptions of the area. Other influences include the future development of Ladbroke Grove as a retail and residential corridor and transport performance and the quality of the public realm on and around the Ladbroke Grove Bridge.

Other internal properties will affect future prices: The future of other land-holdings within the Wornington Green Estate will affect potential prices at Wornington Green. The future configuration and quality of open space currently owned by the RBK&C within the site will affect potential prices. A higher quality open space may more positively affect future price potential and hence the benefit of any private-market cross subsidy for re-provision of affordable housing at Wornington Green.

Wornington Green will affect future prices – the future of Wornington Green itself will play a significant role in determining the potential in the area. A high quality public realm and housing product across the estate will support stronger performance by private market residential components.



2.7 Retail Capacity Assessment

An assessment been carried out by GVA Grimley to provide evidence and advice on the potential qualitative and quantitative need for retail floor space for new "comparison" (additional small shops, specialist restaurants) and "convenience" goods (local grocer, supermarket).

This high level assessment has demonstrated that the significant potential growth in the mix and size of the residential population, along with the uplift in spend, arising from the Wornington Green and the Golborne Road redevelopment and the growth in the wider Core Catchment Area (CCA) will, in turn, benefit the overall vitality and viability of existing shops, stores and market stalls in the area, as well as generating capacity for additional retail floor space.

The assessment, forecasts that there could be the potential for around 2,000sq.m of small specialist goods floor space, and around 650 sq.m of convenience goods. These figures are based on the GLA's 'low' and 'high' population growth predictions.

GVA considers that these forecasts to be robust and sound, as they are drawn on widely accepted and used baseline evidence and projections of population and expenditure growth. Furthermore, they advise that these headline floor space capacity figures could underestimate the potential for new retailing over the forecast period. This is because no allowance has been made for the potential 'inflow' of shoppers and spend from outside the CCA that would arise from a high quality and specialist retail and leisure offer in this area

GVA's assessment of 'good practice' examples of major residential and neighbourhood centre (re)developments across London and the UK, has highlighted that in all cases the inclusion of a foodstore/supermarket is an essential component. Although the scale and type of the foodstore varies across the case study examples, these stores are clearly important in terms of serving the frequent 'top-up' and 'bulk' food shopping requirements of local residents, and wider catchment populations. The right size and type of store in the right location will also help to generate footfall and spend across centres, to the benefit of other shops, businesses and service facilities.

In the case of the Wornington Green Estate / Golborne Road area, the main foodstore provision is the large Sainsbury store to the north, which predominantly serves shoppers in cars, and the Tesco Metro to the south on the Portobello Road. 'Gap analysis' has identified the potential for a smaller supermarket as part of the Wornington Green Estate redevelopment such as rolled out by a number of the major foodstore operators (for example, Tesco Metro and Sainsbury's Local), or the discount store formats of Aldi and Lidl. The scale and type of development would potentially, provide a good 'fit' for the overall redevelopment of the Wornington Green area.

GVA's qualitative assessment, has also highlighted the fact that although Portobello Road is effectively on the 'doorstep' of the Wornington Green / Golborne Road area, the commercial activity effectively ends at Oxford Gardens and the Portobello market does not integrate with the Golborne Road Market.



GVA considers several reasons for this:

- The physical and pedestrian linkages between the two shopping areas are weak.
- There is natural curve in the road that obscures views of the Golborne Road market.
- There are no active shop frontage between the two shopping areas.
- Signage is poor, and this area is too far from the main Portobello Road prime pitch for many traders
- The footfall between Portobello Road market and Golborne Road is mainly local people, rather than the significant tourists/visitors to Portobello Road

Their audit of the two shopping areas also indicated that pedestrian flows tend to peak at certain times of the day, such as at the beginning and end of the day for the 'school run'.

Given that the Golborne Road and Portobello Road areas effectively function as two separate and different shopping locations, GVA considers that Wornington Green / Golborne Road area should build a unique identity and retail/leisure mix, rather than aiming to be an extension of Portobello Road. For example, it could build on its strengths as a hub for the Spanish/Portuguese/Moroccan communities, comprising a wider mix of cafes/restaurants and specialist food shops that are targeted at both its local community, as well as marketed more widely to visitors and tourists from outside the area. The market traders along Golborne Road should also be supported and the market should aim to foster its own identity rather than trying to replicate Portobello Road.

Over recent years Portobello Road's success and attraction as one of the more distinctive unique and popular shopping and tourist locations in London has resulted in the opening of a number of national multiple retailers and leisure operators. GVA considers that the Wornington Green / Golborne Road area could effectively develop a complementary offer, acting as a more 'affordable' location for start-up and specialist retailers and independent operators that have been 'priced out' of Portobello Road. Local agents have reported that there is a growing interest in properties that come on the market.

The area is also popular with young fashion designers looking to capture the spin-off benefits of the area's close proximity to Portobello Road. This has been further underlined by the fact that Stella McCartney has a workshop in the area, there could be potential for the area to provide an affordable and 'fashionable' location for new start-up businesses.

There is also significant potential through the redevelopment of the Wornington Green / Golborne Road area to promote and design better and more attractive linkages with neighbouring shopping locations. As mentioned, there should be potential to draw shoppers and visitors from the Portobello Road area, provided that that mix and quality of retailing and leisure uses in the Wornington Green / Golborne Road area are complementary to these of Portobello Road's. There is also potential to improve the linkages to the shops and services by Trellick Tower, which is currently cut off from the rest of the Golborne Road by the railway bridge. Although it has a different and distinct offer to Golborne Road, essentially functioning as a local centre for local residents, there are opportunities to improve the linkages and



integration of this area.

In conclusion, there is significant potential to improve the scale, range and quality of the retail and commercial leisure offer in the Wornington Green / Golborne Road area in the context of the significant forecast growth in the local population and available spend up to 2020.

GVA's full report – KENSINGTON HOUSING TRUST – Wornington Green Estate / Golborne Road – Retail Capacity Assessment – June 2007' is available as a separate report.





Portobello Road market

3.1 Introduction

The regeneration of Wornington Green requires a detailed understanding of the physical aspects of the existing estate and its neighbourhood, the problems created by the existing built form and the services which supply it. This section of the Brief for Change is therefore an analysis and qualitative assessment of the existing estate and its local environment, and identifies the constraints and opportunities available. It looks in detail at the ground conditions and infrastructure, and considers an important aspect of the integration of the estate within its surroundings, in the access and movement through and around the estate.

The significance of open space and public and private amenity space is a key concern for RBK&C, and so a major section of this chapter deals with open space and landscape, describing in detail the open spaces and play areas on the estate, and the typology and quality of private and semi-public spaces typical of North Kensington. Land and building use is also particular to this area, and the Wornington Green estate provides a striking contrast to the North Kensington typologies, which is addressed in the analysis of the urban grain and built form.

This section therefore provides a broad overview of the challenges to be addressed in the future masterplan, and the opportunities to improve the wider neighbourhood through the redevelopment of the Wornington Green estate. It forms the basis of the principles set out in Secton 4.

3.2 Soil Conditions and Contaminant Environmental Issues

3.2.1 Neighbourhood and Local Context

The geology of the site from British Geological Survey Maps and Campbell Reith borehole records for nearby sites identifies the soil conditions of the area generally comprises 'made ground' overlying London Clay to between 30-50m below ground level. The depth of 'made ground' is not known but may extend to 2-3m below ground.



3.2.2 Wornington Green Estate

A desk study of geotechnical and contaminant environmental issues comprising a walkover inspection of the Estate and a study of archive and regulatory organisation records has been undertaken.

The walkover inspection identified no significant environmental concerns other than the presence of Japanese Knot weed in the lowered private garden at the west end of Murchison House. The site has had no potentially contaminative historic uses having been predominantly residential in use since its first development in the late 19th century. However, potentially contaminative historic uses nearby include the gas works, some industrial works, the railway and a hospital. Current contaminative processes near the Estate are limited to vehicle maintenance in garages adjacent to Munro Mews, a dry cleaners on Portobello Road and nearby petrol stations.

Due to the presence of London Clay, which limits the presence of ground water, and the distances from the Estate to the nearest open water course (350m or more) the risk of contamination of ground water or surface watercourses is considered to be 'low'.

The 'Made Ground' may contain low level contaminants typically metal compounds and hydrocarbon products, with occasional 'hotspots' which may derive from migration onto the site of other contaminants associated with some of the nearby industrial processes. 'Made Ground' may also produce ground gas, usually either carbon dioxide or methane. Normally this would be at a level which can be contained by a relatively modest layer of clean fill material and the adoption of basic gas prevention measures in ground floor construction.

In consideration of the site geology and groundwater regime, and the continued use for residential purposes, the Estate soil conditions are considered to be a low to medium risk to new development. This may require the provision of a layer of clean fill material in future private gardens.

The London Clay soils are susceptible to soil moisture changes particularly in association with trees. This will require increased foundation depths and protection heave for new building foundations.

A borehole and trial pit investigation should be carried out initially on a limited basis to improve the knowledge and confirm the main characteristics of the soil, the potential for contamination, and inform discussions about the conditions of the Estate. More detailed investigation will be required at a later stage to provide information for the design of foundations and soil remediation.

Surveys for the presence and safe removal of asbestos in properties will be required.



Ladbroke Grove, Barlby Road junction

Infrastructure and Services

3.3.1 Neighbourhood and Local Context

Assessment of the infrastructure has identified that Portobello Road and Wornington Road, together with their extensions north through the Estate to the roundabout on Ladbroke Grove, form key corridors for mains services both for the Estate and for the surrounding area.

Key

Wornington Green Estate Key service corridors along road alignment

Key service corridor diverted around buildings

Potential reinstatement of service corridor



Site Analysis – Strategic Service Corridors

3.3.2 Wornington Green Estate

Overview

The original services and infrastructure were substantially replaced when the present Estate was constructed in the early 1970's and no longer follow the original street pattern. The present infrastructure has thus been in place some 35 years, and consequently may have a limited future life.

The Portobello Road and Wornington Road service corridors should be retained as far as practicable. Both of these services routes through the Estate have a significant impact on the future layout for re-development as the potential costs of diversion have a major financial implication. However, reinstating Portobello Road and maximising build sites for the regeneration would require diverting some of the mains back to their original alignment.

Generally the remaining internal Estate service infrastructure is of normal size and configuration. In order to achieve a useful future life for re-development we would expect the local Estate services to be removed and replaced during re-development. This is normally done on a phase by phase basis, with temporary connections and diversions at the boundary of each phase, to create the new infrastructure whilst maintaining supplies to the adjoining areas and off Estate areas.

Gas

Transco record plans show that a large, low pressure 30" diameter gas mains service enters the site from Ladbroke Grove in the north, running to the west of Olive Blythe House and Murchison House, through to Portobello Road, having been specifically re-routed to avoid the present blocks of flats when the Estate was constructed. At Portobello Road it becomes two separate 18" and 24" diameter mains running along the length of Portobello Road.

Transco was unable at the time of enquiry to confirm the current capacity of the gas mains. It will therefore be necessary to determine both the existing capacity and whether the current system has adequate capacity to provide gas for an increased number of dwellings.

The Estate was originally serviced by a district gas heating system which has since been abandoned due to unreliability of the system and occasional flooding of the boiler rooms. All properties have since been provided with individual gas boilers.



Site Analysis - Existing Services

Electricity

EDF Energy's records show that the cabling on the Estate dates from the mid 1970s to the early 1990s, which matches the dates of the current Estate layout. As with the Gas Main, the existing main cable for electricity runs from Ladbroke Grove through to Portobello Road and was diverted around the Wornington Green buildings at the time of construction.

The electrical substation in the north part of the site, beside the railway line and Thompson House serves part of the Wornington Green Estate, however its primary distribution zone is the area to the west of Ladbroke Grove.

A second electrical substation outside of the Estate area, off Telford Road supplies part of the south of the Estate, together with a transformer chamber adjacent to Kensington and Chelsea College.

EDF has advised that the existing network will need to be upgraded to increase the capacity for the new development. Mains Water

Plans provided by Thames Water for potable mains appear to suit the current layout of the Estate. The plans show a network of 100mm diameter public mains in the roads with 75mm diameter public spurs to the buildings. Two spurs of 63mm diameter supplying properties on Munro Mews are shown as privately owned.

Thames Water is unable to guarantee future mains pressure and therefore measures will need to be provided to future proof the supply.

Drainage

Thames Water Utilities drainage records show a 1775mm diameter combined, main sewer from Ladbroke Grove to Portobello Road, which does not appear to have been diverted at the time of construction; in consequence two of the present blocks are thought to be built over this sewer.

A 1370mm diameter storm relief drain enters the site from Ladbroke Grove in the north, running to the east of the blocks of flats in the northern part of the site, through to and south along Wornington Road, and at a depth in excess of 10m below ground level. The route of this sewer has been kept clear of the present buildings.

Within the Estate, some blocking and backing up of the foul drainage system is known to occur, with leakage and occasional flooding into lower ground floor areas including the underground duct network of the former district heating system and old boiler rooms. Previous partial CCTV surveys of this have been undertaken. However, the results are not known. It is possible that the drainage network was retained from the original traditional street pattern.

Thames Water is unable to confirm the current capacity of the system and whether it is adequate to service an increased number of dwellings.

External Works and Drainage

The condition of the external works on the Estate is generally poor and run down.

Surfacing to private parking areas and pavings is deteriorating with cracking and breaking up of asphalt and displacement of paving slabs and brick paviours. Ponding occurs, due either to blocked gullies or incorrect surface falls.

Retaining walls to lowered ground communal and private areas are subject to water seepage and cracking due to ground movement.

British Telecom

The BT network is primarily routed along Portobello Road and Wornington Road, with cable routes from junction boxes into the blocks. BT has advised that the current network has sufficient capacity to accommodate an increased number of dwellings.

Cable Services

A CATV network exists in site. The operator is understood to be NTL. However they have been unable to provide us with any records of the installation.

3.4 Access and Movement

3.4.1 Neighbourhood and Local Context

Wornington Green Estate is located at the northern end of the Royal Borough of Kensington and Chelsea, London. As a result of its central London location, the residents live in close proximity to many of London's major attractions, sights and facilities, including the Royal Parks and the West End.

The Estate is included within the boundary of the extended Congestion Charging Zone which became operational in February 2007. It has excellent road links to the north and the west, being within 5 miles of both the M1 north and the M4 west. Additionally the A40 (Westway) passes 0.25 miles to the south of the Estate, with the nearest access to this road only 0.75 miles away.

Located within Transport for London (TFL) Zone 2, residents on the Estate have relatively good access to public transport reflected in the Public Transport Accessibility Level (PTAL) of 3, with Ladbroke Grove, immediately adjoining the site, having a level of 4. However, this is slightly lower than may be expected of such a central location. It is therefore important to understand the limitations of the PTAL rating which doesn't take into account the following:

- Any bus stops or stations outside the optimal walking distance:
- The destination of the bus/tube/train, and
- The journey time it takes to get to the destination once you are on the transport mode.

Additionally, as a measurement of public transport access only, it takes no account of access to services and facilities within walking or cycling distance.



3.4.2 Wornington Green Estate

Public Transport

Despite the low PTAL rating of 3, the residents of the Estate have good access to public transport, with a variety of modes, routes and interchanges available in close proximity to Wornington Green. However, the distance to tube stations may pose a problems for the elderly or disabled, of which there is a growing number on the Estate.

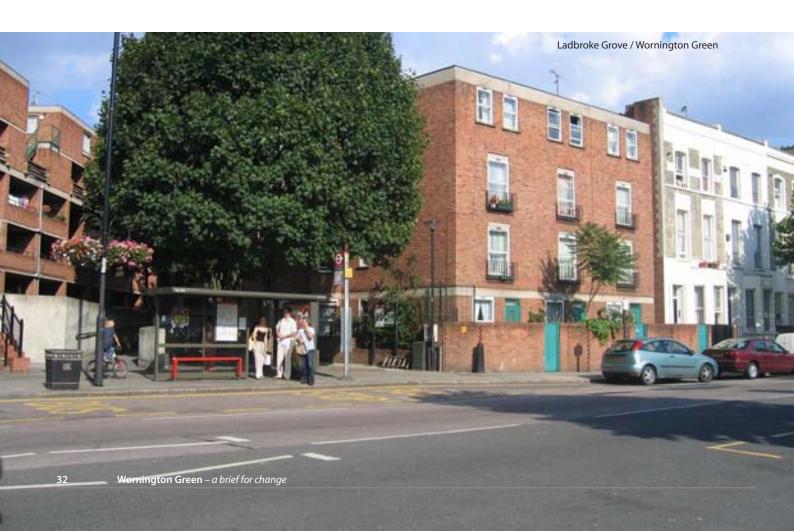
The Estate is located within a ten minute walk / five minute bus ride to Westbourne Park and Ladbroke Grove tube stations for the Hammersmith and City Underground Line, which links to Paddington, Euston and King's Cross Stations for National Rail services. Additionally Notting Hill Gate Station for the Central Line and Kensal Green Station for the Bakerloo Line are both approximately a 10 minute bus journey away from Ladbroke Grove. Kensal Rise National Rail station is a 10 minute bus journey for the North-West London Link Line.

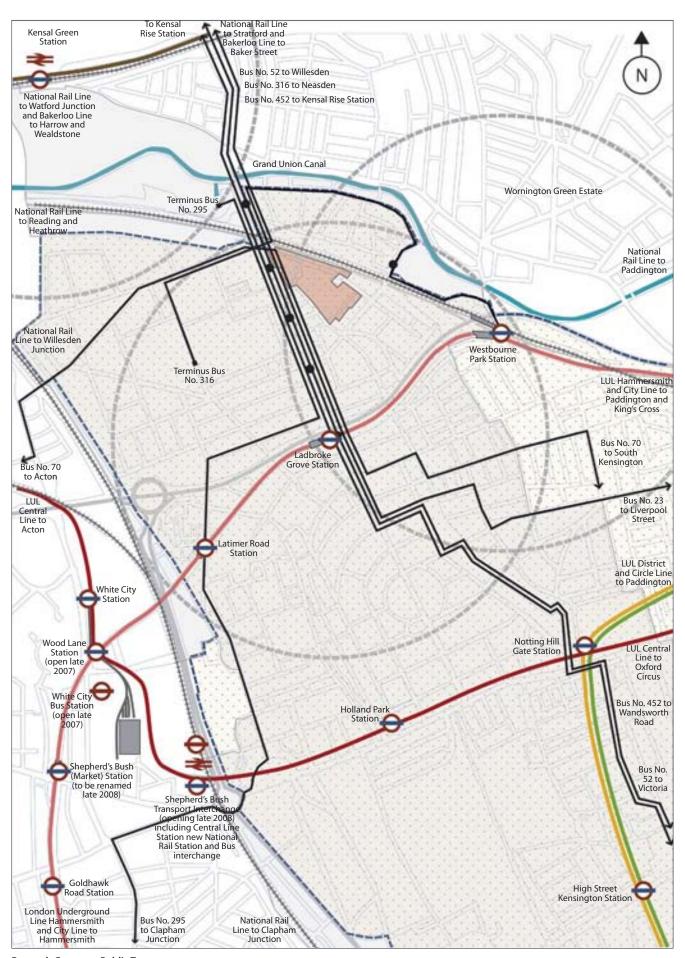
The Mainline Paddington-West railway borders the site to the north. Discussions with residents of the Estate identifies this as a significant source of noise and dust pollution, particularly for residents whose homes back onto the railway.

All residents of the Estate are within a 5 minute walk of the closest bus stops on Ladbroke Grove. Serviced by six bus routes, residents of the Estate have direct access to nearby services and facilities including Notting Hill Gate, Queensway

Shopping Centre, Shepherds Bush Market and the new White City Shopping Centre (currently under construction and due to be completed in 2008). Additionally, these buses also provide direct access to central London including Oxford Circus, Victoria Station, Kensington High Street and Paddington Station. The number of buses operating along Ladbroke Grove, are predominantly north-south services. Discussions with RBK&C highlighted a lack of east-west services in the north of the Borough. RBK&C officers identified a potential opportunity to provide an east-west service across the railway bridge, diverted around the market through streets within the new development. Initial discussions with London Buses identified that proposals for a new or rerouted service would require a business case to be presented supporting the need and viability of the service. Further discussions and investigations mill be required between RBK&C, London Buses and Transport for London to establish the need for an east-west route. This should be considered in the context of the development of the White City Shopping Centre and associated new transport interchange.

The development of the masterplan will need to consider the merits of an additional bus service and the impact this may have on the street infrastructure.





 $Borough\ Context-Public\ Transport$

Vehicle Movement

Wornington Green Estate is located in a primarily residential area bounded by three major transport corridors; Ladbroke Grove, the Paddington-West Mainline Railway and the elevated Westway. Both the Railway and Westway significantly restrict vehicle (and pedestrian) movement, concentrating through movement on routes which cross these barriers, principally Ladbroke Grove, the main north-south route, and Golborne Road, the main east-west route. Both of these currently experience heavy congestion, especially at peak periods. Golborne Road experiences additional congestion on Fridays and Saturdays as a result of the market traders and poorly regulated parking conditions.

Within the Estate, Wornington Road and Portobello Road do not connect to Ladbroke Grove but connect within the site to create an 'inner ring road'. The only road within the development, this provides no through connection, unlike streets in the surrounding area resulting in very little 'throughtraffic'. Preliminary discussions with RBK&C Highways have identified that a number of junctions and roads adjoining the site experience congestion or suffer from related design issues including:

- The existing junction on Ladbroke Grove at the Barlby
 Road roundabout is difficult to negotiate and unattractive,
 and
- Munro Mews is currently used as a rat run to bypass the market and associated congestion on Golborne Road, particularly on Fridays and Saturdays.

RBK&C has also indicated that there may be existing peak hour capacity issues with the following junctions:

- Ladbroke Grove/Chesterton Road/Golborne Road iunction, and
- Portobello Road/ Golborne Road junction.

Additionally the close proximity of the North Kensington Fire Station to the Ladbroke Grove/Telford Road junction, will need to be considered in any proposals.



Vehicle and Pedestrian links

Congestion Charge Zone

The Estate and Ladbroke Grove now fall within the extended London Congestion Charge Area, and as a result, residents qualify for a 90% discount on the charge. The longer term implications of this on both traffic congestion and car ownership are yet unknown. Initial results from the original congestion charge zone identified a reduction in traffic flows entering the congestion charge area by up to 20%, which could be supported by the inclusion of the additional two bus services coming into operation since the extended charge areas came into effect. However, the extended area is primarily residential (compared with commercial in the original congestion charge area) and resident discounts could result in it being financially viable for those residing within the charge zone to use their car. One implication of this is that there is a benefit for car owners to reside within the congestion charge zone in order to qualify for the discount.

Any regeneration proposal for Wornington Green which includes an increase in density will require a full transport impact assessment to support the masterplan.

Parking

Car ownership on the Estate is currently low, at 35% compared with the Inner London average of 49%. Of the households which own cars, the majority have only one and none have more than two. Additionally, work status, income and household composition have a clear impact on car ownership with 60% of those working, earning over £337 per week, or married/cohabiting with children having access to a car.

Parking within the Estate is in two forms, on-street parking as occurs in the surrounding area, and off-street parking courts. There are a number of issues with the current parking provision and arrangement as follows:

- On-street parking is limited and unregulated resulting in residents having to compete for spaces with other local residents, the College and Golborne Road Market and Shops, and
- Parking within the parking courts is poorly designed with trees, planters, walls and gardens fences obstructing natural surveillance and compromising the safety and security of both residents and their vehicles.

A full Parking Strategy will need to be generated as part of the masterplan. This will need to consider the implications of the congestion charge on the demand for parking spaces and include proposals/schemes which give non car owners access to a car, such as a car share scheme.



Site Analysis - Parking Types

Pedestrian Movement

Wornington Green Estate's inner London location gives the residents access to many facilities and services within easy walking distance. Situated at the northern end of Portobello Road, Wornington Green residents are within easy walking distance of both Golborne Road and Portobello Road fruit and vegetable markets to the south of the Estate and a large Sainsbury's store to the north of the Estate.

A primarily pedestrianised street, Portobello Road is world famous and attracts thousands of visitors each week, especially on Saturdays. The market is highly accessible on foot as a result of the interconnected street network which permeates the road. As a result, the pedestrian footfall generated by local residents, tourists and people coming from other parts of London to the market is significant and creates a vibrancy and level of activity in the area surrounding it.



Portobello Road



Wornington Green Road

Wornington Green does not directly benefit from the activity generated by the market. While some of this can be attributed to the market 'fizzling out' at the northern end of the road there are a number of factors deterring both residents of the Estate and those who live in the surrounding area from moving through the Estate on foot as follows:

- Many of the existing streets and pathways within the
 Estate do not integrate and connect with the adjoining
 streets and therefore Wornington Green sits as an 'island',
 segregated from the surrounding area.
- Those pathways that do connect are not legible because sight lines are obscured, paths are not direct and some are dead-ends leading nowhere.
- A large number of paths are not associated with vehicle routes and therefore lack activity and good natural surveillance.

Within the Estate, pedestrian movement is confusing and difficult to negotiate with, residents saying they feel unsafe walking around. This is due to a number of factors:

- Poor physical quality of the pedestrian environment including poorly maintained materials, poor lighting and a lack of continuity in the way different materials are used.
- Poor legibility including dead-end paths leading into the landscaped courts but not providing access to dwellings or buildings.
- A poor sense of safety due to obscured sight lines and dispersed activity; paths are provided at a variety of levels on the ground and additional elevated walkways exist between buildings.
- Poor natural surveillance with pathways passing under buildings, at the backs of flats, and obscured by buildings, trees and fences.
- Indirect routes including those providing access to the public park, Athlone Gardens, which is restricted to three gated entrances, only one of which is located on a pedestrian desire line.

As a result, is it easy for people to gain 'illegitimate' access to buildings, dwellings and public spaces within the Estate and this leads to incidents of anti-social behaviour.

Within the buildings, additional access issues arise as a result of the design of the pedestrian environment including:

- Security of the flats is compromised by the large numbers of dwellings accessed from any single entry point.
- Failure of the over-complicated entry control system
- Lack of maintenance and policing of the internal access points encourage anti-social behaviour.

3.5 Open Space and Landscape

3.5.1 Neighbourhood and Local Context

The RBK&C is the most densely populated Borough in London (and England overall). However, it has the least publicly accessible open space of any authority in London, excluding the City of London itself. A RBK&C survey in 1991 reported public open space as a proportion of land area to be 2.8%, significantly less than the greater London Average of 11.1%. Consequently, approximately 50% of the Borough has been identified as being deficient in publicly accessible open space. Wornington Green Estate, however, is not included within those areas of deficiency. However as a result of these borough-wide deficiencies, the protection and enhancement of all existing public open spaces within the wider Borough is essential.

Despite the low level of public open space, much of the Borough is considered to provide a high quality external environment. This can be attributed to both the high quality of the existing public realm and open spaces and the variety of additional spaces within the borough which provide amenity for the residents. Private open spaces such as the garden squares, cemeteries and grounds of institutions equate to some two thirds of all open space in the Borough (1992) and therefore their value as a recreational resource and ability to relieve the pressure on public open space should be acknowledged. Additionally, visual impressions would suggest that the RBK&C is also one of the greenest of the inner London boroughs. The average tree cover is estimated at over 40 trees per hectare. Again, a high proportion of the Borough's trees is in private ownership, accounting for 72%. However, the Borough also has the highest density of street trees in London at 1400 per sq mile, compared to London average of 910. The extent of tree cover is a reflection of the significant level of control afforded to RBK&C on the protection of trees through the 36 conservation areas, covering over 70% of the borough, and the use of tree protection orders (TPO's) on over 10,000 privately owned trees. As a result, the RBK&C is able to maintain the existing high quality of amenity experienced by its residents and the continued contribution made by the trees.

There is a range of different types of open space, both within the borough and on its borders which provide recreation space for residents, habitats for wildlife and contribute to the overall ecology and biodiversity of the borough. The range of open space has been categorised under the following generic headings:

- Public Parks.
- Private/Communal Gardens.
- London Squares.
- Community Gardens.
- 20th Century Estate Landscapes.
- Cemeteries.
- Green Corridors.





Wornington Green Estate



Kensal Green Cemetery

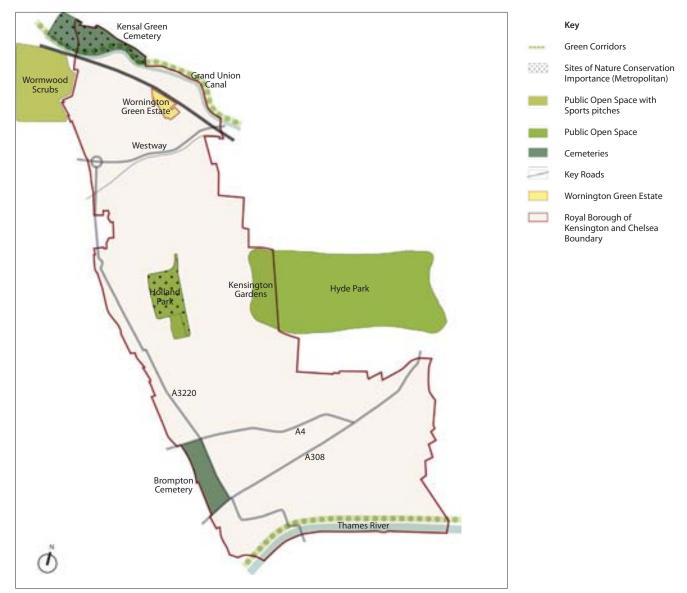
Public Parks

The Borough has twenty six public parks and open spaces, identified by the Council as either Major Parks (8) or Secondary Parks (18) based on their size and range of facilities. However, with the exception of Holland Park, most of the 'major parks' are only between 1-2 hectares in size, including Athlone Gardens which is just under 1 hectare in area.

The maintenance of public parks is currently contracted out to Quadron and the present contract arrangements run to 2008. Under this regime all the 'major parks' and a majority of the secondary parks have full-time park superintendents and are also secured at night time. Consequently the overall quality of

the park areas is significantly higher than in many other London boroughs. This is reflected in the feedback that, despite the limited extent of parks within the borough, seven out of ten people on the Councils' Residents' Panel cited that the parks were the best thing about living in the Borough.

Residents of Kensington and Chelsea also benefit from the proximity of significant open spaces within bordering boroughs. This includes the Royal Park of Kensington Gardens and Hyde Park in the City of Westminster and Wormwood Scrubs and Little Wormwood Scrubs in the London Borough of Hammersmith and Fulham.



Strategic Metropolitan Open Land



Private/Communal Gardens

Private gardens form the greatest expanse of green space within the Borough and Notting Hill is distinctive for its extensive rear communal gardens to the mid 19th century residential development. These spaces include substantial mature trees and provide significant amenity value to private residents. They also contribute visually to the street scene at the end of linear blocks with frontages to the street, providing breaks in the built environment are good examples Arundel and Ladbroke Gardens in the Notting Hill area.

London Squares

There are over a 100 traditional garden squares within the Borough with the majority of these managed as private communal gardens. These historic spaces have a street frontage and are over-looked by residential buildings, with gated, restricted access. Typical of the Notting Hill area, Norland Square provides a very attractive private central garden and includes a private tennis court. Although these spaces are effectively private, they make a major contribution to the visual amenity of the public highway and the biodiversity of the Borough.





Community Gardens

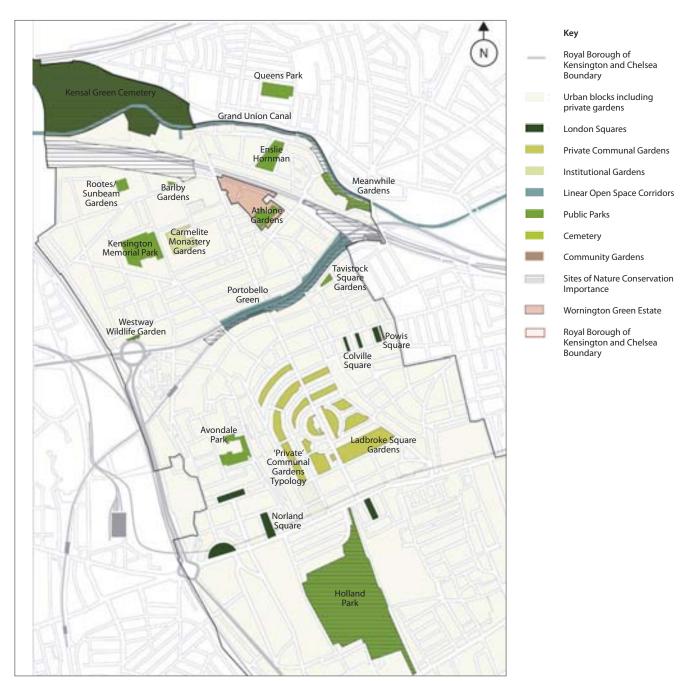
There are several park spaces within the Borough which have been developed and are managed by community trusts, two of which are in North Kensington and are within five minutes walk from Wornington Green:

- Portobello Green, and
- Meanwhile Gardens.

The Westway Trust previously known as North Kensington Amenity Trust, has optimised much of the undercroft and adjacent areas to the elevated M40, Westway and this has included the creation of Portobello Green which is approximately 1.2 hectares in area and located immediately to the west of Portobello Road and to the south of Cambridge Gardens.

Meanwhile Gardens is approximately 1.6 hectares in extent and provides a visual and physical connection to the Grand Union Canal in the north east of the borough. It provides play facilities specifically for children with disabilities.

Neither of these parks is identified in the UDP and, in contrast with the majority of the municipal parks in the borough, the spaces are not locked at night.



Significant areas of Green Space in North Kensington



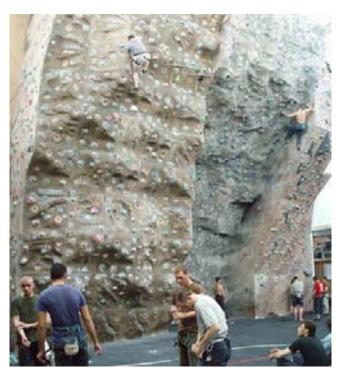
Courtyard behind Olive Blyth House and Paul House

20th Century Estate Landscapes

Typical to North Kensington, latter 20th century estate redevelopment has been detrimental to the overall quality of the public realm with a generally poor interface between the estate buildings and the traditional street pattern and a lack of boundary definition between the public and private space. The estates are often characterised by large areas of hard landscape, unusable isolated pockets of grass verge, poor quality street furniture and neglected planting. This is typified by the Wornington Green Estate.







Climbing wall

Green Corridors

There are a number of green corridors in the Borough associated with transportation infrastructure, all of which have been identified for their ecological value and some for the significant amenity value they provide for local residents.

The Paddington arm of the Grand Union Canal is within ten minutes walk of Wornington Green to the north and its banks have been ecologically enhanced by the planting of native shrubs and wild flowers.

There are extensive areas of green space associated with railway infrastructure which is not accessible to the public but which is valuable for wildlife habitat. This includes the West London and District Lines (incl. Site of Borough Grade 1 Importance for Nature Conservation) and the Hammersmith and City Lines (incl. Site of Borough Grade 2 Importance). Both routes include extensive areas of undisturbed vegetation providing valuable feeding and nesting sites. There are also some areas of sycamore dominated woodland including birch and alder within the railway land boundaries.

Sports Provision

Kensington Leisure Centre (a Council facility) in situated to the south, the other side of the Westway in Notting Hill just over 1km away. It was refurbished in 2001 and has been transformed into a modern leisure facility for the whole community and offers a full range of leisure, fitness and sporting activities with a gym, swimming pool and sports hall.

The Westway Trust also provides a range of sports facilities and some of these are within five minutes walk from the estate. They include the following:

- 6 floodlit all weather football pitches (including one full size pitch).
- Basketball pitch (floodlit).
- Climbing wall.
- Fives Court.
- Twelve tennis courts.
- Gym.

Other sporting facilities can be found in the above mentioned adjacent parks, including: football, netball, basketball, cricket, tennis etc.

Biodiversity

There are several scheduled sites of Nature Conservation Importance which fall within a 400m distance from the Estate and this includes:

- Railtrack Land.
- Metropolitan Line.
- Emslie Horniman Pleasance, and
- Meanwhile Gardens, which has a specific wildlife garden.

3.0 Site Constraints and Opportunities

3.5.2 Wornington Green Estate

Types of Open Space

A range of different types of open spaces have been identified within the estate area and these broadly fall within the following categories:

- Public Park Athlone Gardens.
- Pedestrian Access/Circulation Space.
- Streetscape.
- Semi-Private Open Space.
- Private Amenity Space; and
- Play Facilities.

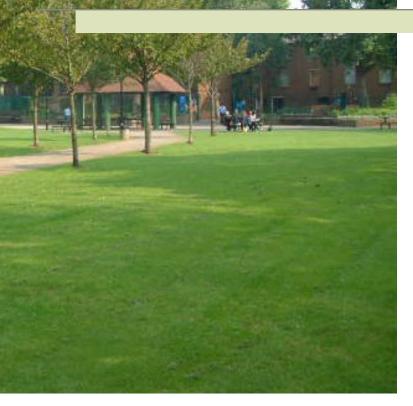


Athlone Gardens



Site Analysis - Open Space Typology





Public Park – Athlone Gardens

Athlone Gardens is the only publicly accessible park within the immediate vicinity of Wornington Green Estate and it has been recognised as extremely valuable to the wider local community which it serves. The importance of this local amenity is reinforced by the RBK&C's Ten Year Park Strategy (2005) which includes the development of a management plan for Athlone Gardens and target to achieve 'Green Flag' status for the park. Athlone Gardens is 0.91ha in area, including the ball court, and represents approximately 21.5% of the gross area of the combined total development area for Wornington Green Estate, Athlone Gardens and Venture Community Centre. The park is predominantly amenity grassland with trees, ranging from primarily small Cherry and Hawthorn species within the park to semi-mature/mature London Planes and a few Ash species around its perimeter. There are two distinctive rows of mature plane trees which pre-date the park and follow the historic alignment of Wheatstone Road, which has all but been removed, remaining only as a pedestrian path along the South Eastern boundary of the park.



The park includes the following facilities:

- Small fenced play area catering for under 7's (see play facilities section for more detail).
- Covered/band stand shelter with seats.
- Park Superintendant's office and maintenance store; and
- Ornamental garden area with raised planters, seating and picnic benches.

Additionally, outside the park itself there is a flood-lit, sunken, hard-surfaced and fenced ball court with a restricted access via an alleyway (see play facilities section for more detail). Initial site observations suggest that the park is moderately well used by the public. Even though the play area is in a poor condition it appears to be reasonably popular with local children. The Quadron Services park superintendent for Athlone Gardens identified that the park is popular with dog walkers. It is also used by families for picnicking during fine weather and it is used as a venue for members of the Moroccan community who play cards and board games on the picnic tables. In support of these comments, the following park users were identified during a landscape appraisal of the site (12.00 noon Thursday, 19th April 2007):

- Play Area: 6 number children and 2 adults
- Open Grassland: 4 number dog walkers
- Seating Areas: 11 number adults

However, consultation with the residents on the Estate reveal that while 21% use the gardens at least once a month, 45% haven't used the park in the last 12 months. When asked about factors which would encourage them to use Althone Gardens more often, these included the appearance and quality of the park as well as improved safety. This suggests a number of factors that inhibit use of the park including:

- Awareness of the gardens may be low.
- The park is perceived to be of a poor quality.
- Residents are concerned about issues of safety within the park, and
- Concerns about the use of the park as training ground for competitive dog fighting

These inherent issues are to some extent a result of the design of the park.

Located at the southern end of the estate, between Wheatstone, Faraday and Telford Houses and the terrace houses on Munro Mews, the park is almost entirely bounded by buildings. The park has only a very small amount of public frontage to Portobello Road and to Faraday Road. A public pedestrian path runs along the south-eastern boundary of the park, adjoining the terrace houses on Munro Mews. The park is securely fenced along its perimeter with metal railings to road frontages, pedestrian paths and Telford House; and solid brick walling and fences to the private gardens of the remaining buildings. Therefore, despite being a significant public open space, Althone Gardens is not easily accessible to the public, visible from the boundaries or overlooked for security.



As a result, public access to the park is restricted to four small gated entrances:

- The main entrance on Portobello Road.
- One entrance on Faraday Road near the Venture Centre, and
- Two entrances along the public pathway adjoining the terraces on Munro Mews.

An additional gated entrance is located between Wheatstone and Telford House providing rear access for residents of the ground floor units of Telford House only. However this is kept locked at all times. Access to the park is managed on a daily basis and gated entrances are locked at dusk.

In the past Athlone Gardens had a particularly poor reputation with regard to security and crime related activities. In early 2005, £150,000 was spent on improvements, mainly focused on improving the security and amenity of the park. This included increasing natural surveillance and establishing clear sight lines by removing all perimeter screening vegetation that extended along the boundary with Wheatstone Road and Munro Mews and reducing the height of the planters and associated planting at the entrance of the park on Portobello Road.

The park was subsequently replanted with approximately 2,500 plants, including 50 different species of plants consisting of ornamental grasses, perennials and low growing shrubs. The choice and location of the planting ensured clear sight lines were maintained and the planting was put in at extremely high densities to optimise their establishment. Consequently the majority of this ornamental planting has survived with very little vandalism.

Quadron Services maintains the park with the full time presence of a park superintendent whose responsibility includes opening the park on a daily basis, providing a degree of 'policing' and undertaking maintenance operations. Any incidents or problems within the park are dealt with by the Royal Parks Police who are responsible for policing all of the parks in the Borough.

Recruitment and retention of park keepers is particularly challenging in parks where anti-social behaviour is a regular event. Quadron Services has stated that the improvement of the horticultural value of the park was an important factor for them in providing job satisfaction for their park superintendent employees and subsequently for them being able to retain good staff at the park.

In addition to a full time park superintendent, the Royal Parks Police are responsible for policing all the parks in the Borough and have a remit to visit Athlone Gardens, ideally, on a daily basis. The Royal Parks Police has confirmed that since the park was altered in early 2005, the level of anti-social behaviour has significantly reduced. However, there are still ongoing incidents including the use of the park to train dogs for competitive fighting.

As a result of much of the boundary to the park being bordered by the backs of residential properties the park remains both visually and physically cut off from the surrounding residential area and the residents themselves. Consequently, natural surveillance over some of the park areas remains limited and few opportunities exist to improve this further if the park remains in its current form. Much of the park's inherent deficiencies need to be resolved in relation to its fit with the surrounding built development. The regeneration of the whole Wornington Green Estate area therefore provides the opportunity to transform this valuable amenity into an exemplary park for the Borough and



Athlone Gardens exits onto Portobello Road



Athlone Gardens: View South from Wheatstone House boundary



Faraday House boundary to Athlone Gardens

Streetscapes

Portobello Road and Wornington Road are both adopted streets; however there is a small section of adopted highway connecting the two which is within the ownership of the Estate.

The character of Portobello Road is mixed. In the vicinity of Telford House, the street is addressed by the built form with a consistent frontage defined by low height brick walls and metal fencing to shallow front gardens. Opposite Telford House, it is defined by a hard street edge boundary with an active street frontage (retail units) on the back edge of pavement. Car parking is on-street in designated bays. Surface materials consist of tarmac carriageways, granite stone kerbs, and predominantly York stone pavements. Generally street furniture (lighting, signage etc) and tree planting is located on the edge of the kerb maintaining a clear footway. Street furniture is 'heritage' in style and painted black. Average footways are approximately 3m wide, with approximately 7.5m wide carriageways. This reflects the streetscape character typical of Kensington and Chelsea and of the surrounding area.

Further along Portobello Road into the Estate, the active street frontage shops, as the buildings lit perpendicular to the street with blank flank walls.

Wornington Road is largely residential, apart from the Kensington and Chelsea College. The northern side of the street is defined by the built form with solid brick boundary parapet walls to lower basement level properties. Trees line the street along the kerb edge. The southern side exhibits an inconsistent building line. The buildings do not address the street but look on to semi-public courtyards. Blank ends of buildings front the street with intermittent trees. Car parking is on-street (tarmac carriageway) in designated bays.



Portobello Road, North End



Wornington Road



Semi Public Space

The blocks of flats on the Estate are positioned in 'H' patterns creating open courtyard spaces between the blocks; these are a combination of:

- Resident parking courts.
- Semi-public open space with hard and soft surfaces,
- Play areas
- One containing a temporary port-a-cabin housing the KHT Annexe and parking.

These spaces are poorly defined with no real boundaries and no change in surface materials to denote pedestrian movement from the public realm into a courtyard space. Despite being surrounded by the private gardens of residential dwellings, four of the courtyards have no direct access for residents. As a result of this and their poorly defined function, there is a lack of ownership and these spaces appear to be under utilised.

All of these courtyards are characterised by semi mature/mature tree cover and varying level changes, up to 1.5m below surrounding road levels. There are approximately 120 trees on the Estate, predominately London Planes, which have also been planted at varying levels. Many of the trees are located in restricted areas and in close proximity to adjacent buildings where residents report that they exacerbate poor lighting conditions for homes. Given the location and density of the tree planting, many of the trees have distorted crowns and are leaning over.

Grassed areas in the courtyards have generally been split into unusable pockets of raised lawns. Apart from the trees, there is little other vegetation. The pavement areas are a mixture of continuous insitu materials such as tarmac and concrete or small element paving; brick, concrete block, or pre cast concrete slabs. Pavement materials have been used in an ad-hoc manner, providing no legibility to these spaces in relation to amenity, access and poor definable thresholds between public and semi private space. Five of the courtyards have hard surfaced areas. However, only two appear to have a specific purpose; a seating area and a laid out 'play' track. It is not apparent whether they are actually used by children for play.

Of the three courtyards which have parking areas in them, all of them have residential units with ground floor access entering onto the space. In two of these courtyards the parking is partially obscured behind screen walling and tree planting. While this provides a degree of visual interest within the courtyards, it reduces natural surveillance and obscures sight lines compromising safety and security. As these are primarily parking courts, cars dominate the space and have a significant and poor visual impact on the amenity of the surrounding buildings.

The spaces provide a significant green foil to much of the unattractive built environment. However they are not obviously of much practical benefit to the immediate residents.



Wornington Green, semi-public open space





Wornington Green parking

Private Amenity Space

The majority of ground floor units within Wornington Green Estate have front garden areas acting as useful defensible space and rear gardens. However these vary in size. Some of the front garden areas have been personalised by the residents, improving the amenity of the bordering public spaces. Many of the rear gardens, including those of the terraces and the 'H' blocks, back onto the publicly accessible open space, thereby compromising privacy and security of both these gardens and the dwellings. The variation in changes of level throughout the Estate also increases the opportunity for overlooking of rear gardens, and compromising privacy. There are a variety of balcony spaces on the Estate, including private terraces on upper floors, balconies where flats have been recessed back from the building line, and Juliette balconies, many of these private external spaces are well looked after despite their lack of access to sunlight and daylight.



Wornington Green balconies

Play Spaces and Facilities

There are a number of designated public and private/managed play facilities provided within or in the vicinity of Wornington Green including:

- Publicly accessible formal play area for under 7's within Athlone Gardens, comprising six items of fixed equipment within a fenced area.
- Publicly accessible sunken ball court located on the corner of Wornington Road and Munro Mews.
- Adventure Playground and toddlers' play area within the Venture Centre, which includes formal sport and play facilities.

Additionally there are a number of other spaces which provide the opportunity for informal play including:

Both hard and soft surfaced areas within the semi-private courtyards and a skate board track adjacent to Watts House.

The quality of the play equipment and the sunken ball court are poor. Some of the play facilities, specifically the slippery slide, would not meet current health and safety standards.

Additionally the ball court is not overlooked by surrounding buildings and access is via an alleyway, so it is not perceived as a safe or desirable place to play.



Wornington Green play area

Assuming a current estate population of approximately 1700 people (in 538 homes), the estate currently meets the spatial requirements of the National Playing Field Association (NPFA) 'Six Acre Standard' for the provision of play areas as follows:

- Local Area of Play (LAP): The existing courtyard spaces currently fulfil the requirements for LAPS, being informal spaces of approximately 100m2 and within a 60m radius of residential properties. Some contain features such as track areas or are large enough to be used as ball courts.
- Local Equipped Areas of Play (LEAP): The formal play facilities within Athlone Gardens and the Venture Centre fulfil the requirements for a LEAP for a majority of the Estate area, on the basis that there are five types of equipment and a small games area within a 240m radius of the Estate. The north-west corner of the Estate however does not comply with LEAP requirements.
- Neighbourhood Equipped Area of Play (NEAP): Include eight types of equipment and facilities for ball games to be provided within a 600m radius of the site. This level of facilities is provided in the recently refurbished Emslie Horniman's Pleasance and Kensington Memorial Park which fall within the 600m radius/15minute walking

requirements for NEAP's. However, the railway line to the north of the site and Ladbroke Grove immediately to the west could be perceived as a barrier to pedestrians accessing these parks.

The NPFA also provides standards for the provision of sports pitches in relation to population and accessibility; however these standards are extremely stringent and would be impossible to comply with in an urban situation.

Regeneration of the estate would need to comply with the recently prepared Draft Supplementary Guidance to the London Plan: Providing for Children and Young People's Play and Informal Recreation (2006). These requirements are tailored to London's urban character and are significantly more rigorous than the NPFA standards including the provisions of a minimum of 10m² of play space per child.



Play provision





Landscape Tree Assessment

There is a high proportion of well established tree cover within the Wornington Green Estate and this assists in detracting from the poor visual quality of the existing residential development.

A preliminary tree assessment has been undertaken. This identified approximately 185 trees within the Estate and Athlone Gardens with the predominant species being the London Plane. Other species which are numerous include Cherry, Lime, Ash, Birch and Sycamore.

The majority of trees on the Estate are roughly the same age, having been planted at the time of the Estate's construction, they are covered by individual TPOs. Many of these are planted above or below street level and show signs of having been managed including some recent pollarding. Some new tree planting has recently been undertaken on the Estate.

The trees in Athlone Gardens have a wider age structure from recently new plantings to mature trees along the boundary of the old Wheatstone Road alignment. Trees within Athlone Gardens are under the ownership and care of RBK&C.

Thirty-five of the trees on the estate have been identified in the highly desirable/desirable category to be retained on the basis of their health and amenity value. These are mostly mature trees on old or existing road alignments which have good forms with room to grow. Generally they are also at the same grade as the surrounding levels whereas the remaining trees, some of which, as previously mentioned, are planted at lower levels or in constricting situations, have been placed in the 'optional retention category'.

It is possible that the location of many of the trees may be an issue with regard to their proximity to buildings and particularly within the north facing courtyard areas where they may reduce daylight levels to adjacent residential accommodation.

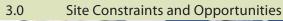
It is anticipated that any wholesale development of the estate will result in the loss of a large proportion of the existing trees, given their current locations and the complexities of split level external space areas. A tree strategy will be required, and should include mitigation proposals.



Biodiversity

There is no nature conservation policy designation within the estate area and no specialist ecological appraisal has been undertaken as part of this study. The extent of tree cover over the estate and the adjacent park however will be of significant value for nesting and feeding birds.

Optional
Site Boundary





3.6 Land and Building Use

3.6.1 Neighbourhood and Local Context

Residential

Kensington and Chelsea is primarily a residential borough despite its commercial importance to London, particularly in the fields of small and medium enterprises, shopping and tourism. It is a mixed tenure borough with 44% owner-occupied, 30% private rented and 26% social rented (2001 census). The number of social rented homes is in line with London as a whole but a higher percentage of private rented than the London average (17%). Additionally, North Kensington, including Golborne Ward, has a higher proportion of social rented housing compared with other parts of the borough, at more than 46%. In terms of the types of residential dwellings, Kensington and Chelsea is ranked the fourth highest borough in England for the proportion of flatted properties which is 30%. Importantly it is also ranked the fourth highest for percentage of homes which are overcrowded, again at 30%.

Indicative Historical Density Analysis

	Including Athlone Gardens and the Venture Centre to the middle of the pavement on all adjoining roads	Excluding Athlone Garder and the Venture Centre to th middle of the pavement o all adjoining roac
Total Site Area (ha)	5.46	4.3
Original Victorian street layout – assuming all houses		
No of Dwellings (as houses)	300	n/
Number of Habitable Rooms (assumption:	1800	n/
total rooms per house = 9, assumed 6 habitable		
rooms per house)		
Density (dw/ha)	55	n/
Density (hab rooms/ha)	330	n,
Original Victorian street layout – assuming all		
occupied as flats		
No of Dwellings (subdivided – assumption of 3 flats per house)	900	n/
Number of habitable rooms (assumption: total rooms per	1800	n/
house = 9, assumed 2 habitable rooms per flat)		
Density (dw/ha)	165	n/
Density (hab rooms/ha)	330	n/
Existing as Wornington Green Estate		
No of Dwellings	538	53
Number of habitable Rooms	1620	162
Density (dw/ha)	99	12
Density (hab rooms/ha)	297	37

Density

The density of the land comprising the Wornington Green Estate has been through a number of changes over the years, both through the physical form of the buildings on the site and through the occupation levels of those buildings. The original Victorian houses, initially built for middle-class families close to the new Metropolitan Underground Line, were soon in multiple-occupation by a number of families; historic records for nearby areas show an average of 18 people per house in over 130 houses around the 1930s.

The adjacent table compares:

 Fig 1: the intended density of the original Victorian houses.

- Fig 2: an assumed density of the over-occupation of the Victorian housing based on the average occupation discussed above, and
- The current density of the Estate.

The original Victorian layout included small back gardens with little shared public open space, untypical of much of the immediate area. It is therefore appropriate to consider the current and proposed density of Wornington Green including and excluding the area of Althlone Gardens.

The density of the adjacent street properties to the south have considerably higher densities of 216 dw/ha. These usually reflect buildings of 4-5 storeys in height for example Colville Square.



Comparison of residential densities in north Kensington

Retail and Shopping

As an historic area of London and on the borders of the West End, the Borough plays host to a number of international attractions and institutions. Of particular relevance to Wornington Green is the proximity of the street markets of Portobello Road and Golborne Road. Portobello Road Market is one of the most famous street markets in the world, statistically featured in the top ten rankings of the most visited tourist sites in London.

The Market began in the late 1860s or early 1870s coinciding with the new housing in the area and was one of several street markets operating at the turn of the century. The Market was originally held on Saturdays only; however, by the mid-1920s a daily Market took place in Portobello Road, which continues to this day.

The Market falls into three sections: antiques and bric-a-brac; fruit and vegetables; and second-hand clothing, bedding and the like. The trade in antiques has grown markedly in the last few years and, although most tourists know Portobello Market for its antiques, local residents use Portobello to buy fruit, vegetables, cheese, bread and many household items. Golborne Road market specialises in Caribbean and North African produce predominantly servicing the local ethnic communities.

But Portobello Road is much more than a street market. The road is also lined on both sides, with an unusually wide range of small, independent shops which offer an array of goods and services which complement the market well, including a Tesco Metro.

There is no shortage of pubs and restaurants, and Portobello Road is also home to the famous Electric Cinema. A number of cafes, offices and light industrial users are situated close to the street, particularly under the Westway, managed by the Westway Development Trust.

The original Victorian terraces remain along most of the length of the street providing an intimate streetscape. Most remain as single shop units, their independence often affirmed by the colour scheme of the facade, as well as by the shop signage. Even the few larger buildings tend to have a narrow frontage

onto Portobello Road, remaining in tune with the small scale and intimate character of the place. The exception to the rule is the section of buildings between Oxford Gardens and Golborne Road which is walled. The traditional monasteries, the Spanish School and the housing scheme of St Joseph's Close all have blank walls to Portobello Road and as a result the shops and markets currently fizzle out towards the northern end of the road, especially during the week when the market is less busy.

There are also a number of small shops and cafes located on Portobello Road, to the north of Golborne Road, providing a fine grain retail environment. Portobello Road, once connected to Ladbroke Grove, ends abruptly at Wornington Green Estate.

A complicated system of one way streets limits through–traffic ensuring Portobello Road is primarily a pedestrian route whilst providing traffic access to shops. Public transport connections are good, with three tube stations within walking distance of the street.

Golborne Road is also an historic retail centre and market, once specialising in butchers, the key focus now is on ethnic food items. Patronage of the market is principally from local residents within walking distance during the week and pedestrian flows from Portobello Road at the weekends. As a result the market and shops are heavily dependent on the link to Portobello Road market.

However, unlike Portobello Road, Golborne Road is an important thoroughfare due to the railway bridge crossing at the end of the street, and it is heavily congested. This is compounded by the poor parking and market stall regulation along the street. An in-depth study of Golborne Road and its regeneration potential was commissioned by RBK&C, which discusses the above issues in further detail.

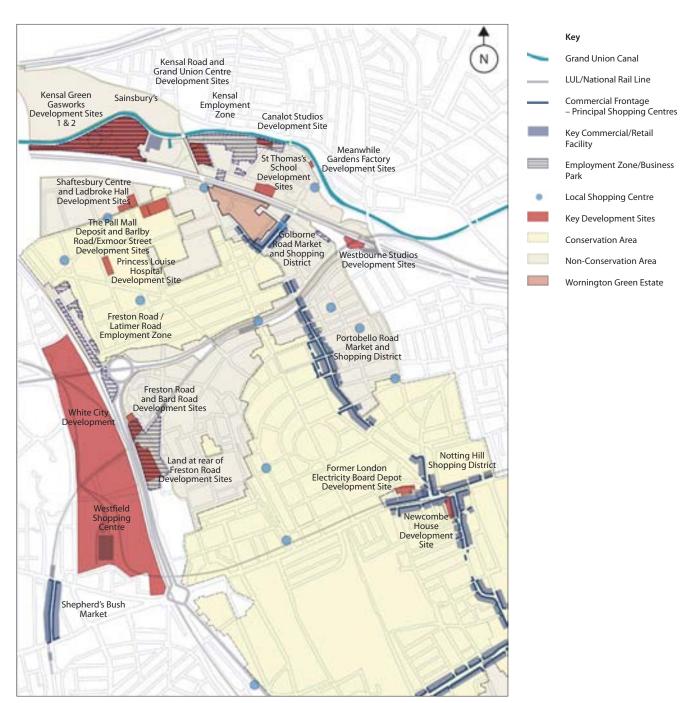
Situated within a dense and extremely diverse residential area, Portobello and Golborne Roads offer shopping, leisure and entertainment within a human-scale environment. There is also a Sainsbury's store within a five minute walk to the north of the estate.

Industry and Employment

The Borough's principle industry is small and medium size enterprises, light industrial workshops and diplomatic offices. Of particular note is the Kensal Employment Zone to the north of the Estate, between the Grand Union Canal and the railway. Comprising mostly of small office and light industrial firms engaged in the creative industries including media, design, printing, publishing and communications, this is typical of the employment makeup of the area. The area has been particularly attractive to firms and individuals which are highly innovative in

multimedia and are involved in the growth of the independent music industry. Many companies choose to locate in this vibrant area of North Kensington, and Stella McCartney's Fashion Warehouse, is a prime example.

Additionally, the success of the small, flexible business units which comprise the Barley Shotts Business Park, just off Golborne Road, is considered a good example of light industrial uses in the area.



Land and Building Use

3.6.2 Wornington Green Estate

Residential

Wornington Green Estate is predominantly residential with the only other uses being associated community facilities and local services for the residents. The Estate is single tenure and comprises 100% affordable housing. This is not comparable to the surrounding areas which are mixed communities. KHT commissioned a MORI survey and conducted a Housing Needs Survey from which a number of key issues regarding the existing residential provision on the Estate were identified as follows:

- There is a low turnover of residents on the Estate and a short void letting period which suggests the Estate is popular. While this can be interpreted as being due to location or the accommodation itself, a comparably higher percentage of residents is dissatisfied with their accommodation than those nationally, being 62% compared with 80%. This suggests that location may be an important aspect of the apparent popularity.
- There is a significant mis-match between housing need and housing provision, indicating by the number of families living in over-crowded conditions and the number of homes which are under-occupied.
- Many of the larger households are made up of extended families of several generations, with adult children.
- The properties are predominantly 1-bed homes (40%), and the Housing Need Survey shows that even more are required.
- There are 3 households with a wheelchair-user and 117 households which have a family member with a disability.

Right to Buy

Wornington Green residents do not benefit from the 'Right to Buy' scheme. However a significant number of residents and their adult children aspire to owning their own homes, but are prevented from doing so in the locality because of exorbitant residential prices.

The Estate is well served by a number of local shops including:

A newsagent and corner store in the ground floor of Paul House, supported by a number of small premises at the Barlby Road roundabout on Ladbroke Grove, including a local store, laundrette and Indian takeaway.

Community Facilities

The Estate has a variety of existing community facilities, both within or immediately adjoining it, including:

- The Venture Centre and Adventure Playground.
- The Open Door Friendship Centre.
- KHT Housing Offices and Portacabin extension

It will be necessary to determine at masterplanning the full extent of community facilities that will be needed to support the new and enlarged community.

The Venture Centre and Adventure Playground

The Venture Centre is a registered charity: The Venture Community Organisation. The association acts as an umbrella organisation to allow different projects, courses and events to operate with a degree of autonomy while sharing resources and facilities.

The services provided within the centre include:

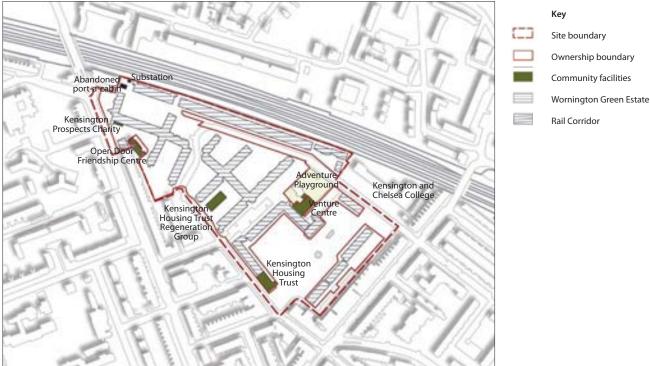
- Creche.
- Venture Care: after school and vacation care.
- Notting Hill Adventure Playground.
- Glissando Steel Orchestra.
- Weekly classes and courses.
- Hire of the Venture Hall.

Initial consultation with the residents and stakeholders reveals that the Venture Centre is popular and oversubscribed; 30% of households on the Estate have used the facility in the last year. Within the centre itself the most frequently used facility is the Adventure Playground. Additionally, due to the wide range of services and classes available within the centre, the hire of the hall for private functions is difficult. Residents also mentioned the cost of using the facility and attending courses as being beyond the reach of many residents on the Estate.

Physically, the relationship between the Venture Centre and the surrounding Estate, including Athlone Gardens, is poor. The entrance is located next to the entrance of Faraday House and complaints from residents regarding noise and anti-social behaviour are common. The Centre is surrounded by high walls with barbed wire above. The Management Committee has indicated that it would consider relocation within the wider area and would prefer main entrance to be on Portobello Road or Wornington Road and for the Centre to have a better relationship to Athlone Gardens.

Further investigation is required to determine the future needs of the centre.





Community Facilities on Estate

Open Door Friendship Centre

The Open Door Friendship Centre is located in a two-storey building on the north west corner of the Estate, just outside the estates boundary.

Run as a not-for-profit Christian Charity, it has recently been extensively refurbished, and now acts as a drop-in centre and focus for social facilities as well as providing language support and advice.

Initial discussions with the organisation suggest that their current location suits them and they would not necessarily welcome a more public front door.

KHT Housing Offices and Annexe

KHT's Housing offices are also based on the Estate, located on the ground floor of Telford House on Portobello Road. However, these premises are over crowded, and do not provide good working conditions for KHT staff. The fact that the office occupies a converted flat means that additionally, the facilities are poorly arranged. Additionally, a temporary Portacabin, located in the courtyard space between Chesterton and Lionel House houses the KHT Wornington Green Regeneration and Community Development Teams.

Other Facilities

Adjacent to Thompson House is a now vacant and almost derelict portacabin which has previously been used as a base for a variety of community based projects including as a base for community policing, and by a youth group.

Educational Facilities

The area is generally well served by educational facilities across a range of levels, with:

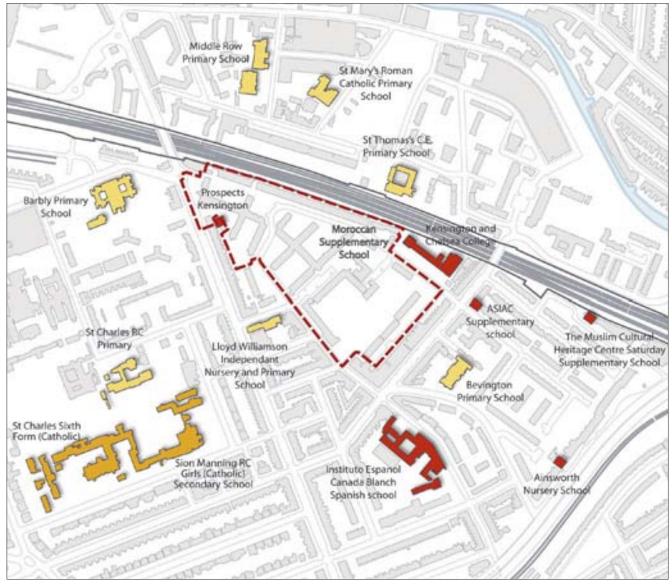
- Six local Primary Schools within a five minute walk (400m);
- Holland Park Comprehensive (mixed), the only secular secondary school in the Borough;
- Sion Manning Secondary School (girls) and St Charles
 Sixth Form College (mixed);
- Kensington and Chelsea College located on Wornington Road adjoining the Estate; and
- A number of supplementary schools supporting the ethnic communities (mixed).

Holland Park Comprehensive is heavily oversubscribed, with 800 applications a year for 240 places, resulting in many children having to travel a significant distance. RBK&C has plans to

provide a new secondary school – Chelsea College on the Lots Road site in south-west Chelsea.

Due to its proximity to the site, the interface between Kensington and Chelsea College and the redevelopment of Wornington Green needs to be considered. Currently the interface with the college and the street is poor as a result of the sub-basement level and the high, solid brick wall. There is also little interaction between the activities within the College and other community facilities within or immediately adjoining the Estate, the only mention in the Colleges' website was a link between the Open Door Friendship Centre and the College.

Further work is needed to establish potential links between Kensington and Chelsea College and the regeneration of the estate.



Local Schools and Colleges



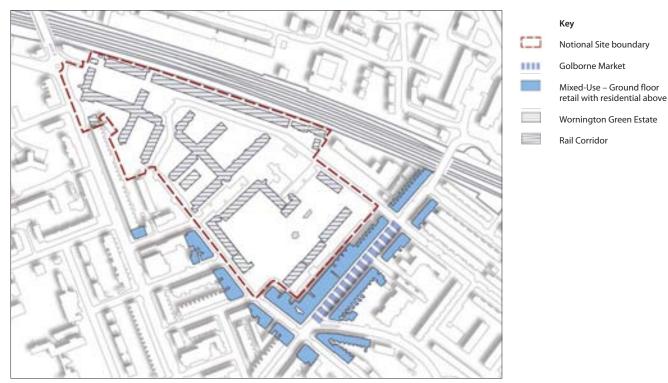
Retail/Commercial/Mixed Use

There is currently litte retail, commercial or mixed use provision within the Estate, however, commercial led retail shops, café/restaurants and businesses are in the local area, specifically on Portobello Road and Golborne Road.

Retail space on Portobello Road, particularly to the southern end, is highly sought after and in short supply. However this dissipates with a lack of frontage between the Spanish school and St Joseph's Close residential development. The emergence of a number of boutique shops and cafés in the Victorian Terrace

at the northern end of Portobello Road, directly opposite Athlone Gardens, demonstrates the high demand on this road frontage for commercial premises and suggests the viability and future potential for this to expand and be incorporated in the redevelopment of Wornington Green.

A Retail Assessment was completed by GVA Grimly towards the end of this study and is available as a separate appendix to this document.



Local Mixed-Use

3.7 Urban Grain and Built Form

3.7.1 Neighbourhood and Local Context

Urban Grain

The typical urban grain of 70% of the Borough can be seen in the zone to the south-west of Wornington Green. This zone, which is also a conservation area, is typified by linked streets bounded by narrow-frontage houses with buffer zones of semi-private front garden areas and secure, enclosed private rear gardens.

The Figure Ground Plan, below, has been drawn from the Ordnance Survey base, and clearly shows the strong urban form of these conservation areas around Wornington Green, and the dense housing to the north side of the railway, both of which are highlighted in yellow. The notable features are the nearcontinuous, smooth frontages which have a direct relationship with the street. This can be compared with the Wornington Green estate where the blocks are irregular and atypical of the area, with no direct relationship with the street, and a lack of clear definition of private and public space.



The strong urban form bordering Portobello Road can be observed along its length, until the most northern part, where the urban form breaks down, alongside Wornington Green's northernmost blocks.

Other less regular areas can be seen on this plan, and these relate to hospitals, schools, light industrial zones or other housing estates.



Urban Grain in North Kensington

Built Form

Key

Lower Ground

High Rise (+6 St.)

The Royal Borough's unique residential character is a major contributor to London's diversity and vitality. A large part of the Borough derives its character and townscape from its heritage of nineteenth and early twentieth century buildings. There are 35 designated conservation areas, encompassing about 70% of the Borough, many centred around the famous garden squares. The Borough also contains some 3,800 buildings that are listed for their special architectural or historic interest.

The diagram below demonstrates the diverse range of heights of Wornington Green estate and of some of the buildings in the neighbourhood. While the highest of Wornington Green's blocks are 6 storeys high, this is exceeded by a number of tower blocks in the area, which are between 12 and 15 storeys. These are dwarfed by Goldfinger's Trellick Tower, which rises between the railway and canal to the east of Wornington Green, to a majestic 31 storeys.

3-4 Storey

1-2 Storey



View of Trellick Tower from Golborne Road



Heights of tall buildings on and around Wornington Green estate

3.7.2 Wornington Green Estate

Overview

The buildings within Wornington Green are significantly different from the historic buildings of the Borough. Built in the 1970s and early 80s, they are typical of much local authority building of the period, characterised by shared entrances, common stairwells and horizontal deck access. Initial consultation with the residents revealed that satisfaction with the home is lower than across England as a whole, 62% compared with 80% of council or housing association tenants nationally. An initial structural investigation was completed on the buildings as part of the Options Appraisal, and along with resident consultation the key issues have been identified.

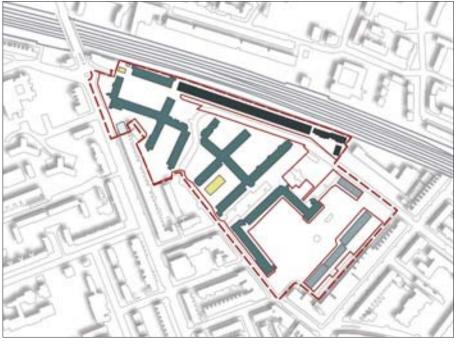
Block Arrangement

The physical characteristics of the buildings within Wornington Green Estate allow them to be grouped into four building typologies:

- 300 Ladbroke Grove;
- Houses on Munro Mews and Wornington Road;
- Pepler House and Edward Kennedy House; and
- Remaining buildings which form a large group arranged around open courts.

300 Ladbroke Grove

The block of six flats at 300 Ladbroke Grove works well in its current location. The building backs onto the street forming part of a typical urban block. Due to the small number of flats there is a strong sense of community among the residents. In terms of structural issues there are few problems with the building and flats which could not addressed through Decent Homes or the Trust's on-going refurbishment programme. There is concern about the security of the exposed rear gardens, particularly during the Notting Hill carnival, but this can be addressed easily.



Building Groups





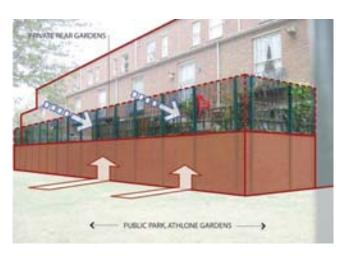
Houses on Munro Mews and Wornington Road

While these houses are street level properties, a number of issues occur as a result of their orientation and location:

- Poor definition of fronts and backs as a result of the different orientation of the houses along the Mews;
- Poor natural surveillance of the park due to the houses on Wornington Road backing onto it and some of the houses on Munro Mews doing the same; and
- A lack of security due to exposed rear gardens and public access to Munro Mews.

Pepler House and Edward Kennedy House

Designed with a clear frontage to the street and back to the railway, these blocks follow more traditional principles of block design. The blocks are designed with vertical core separation meaning access to communal entrances is restricted to eight flats off the circulation core. As a result, residents feel a sense of community and security. These entrances are repeated along the length of the block creating an active frontage along the street. The basement level flats have both a front and rear garden. However, the front gardens are quite dark and damp and the rear suffers noise and dust pollution as a result of the railway. Despite this, most of the outdoor spaces appear to be well maintained.





Rear of houses 'fronting park'





Front of Replar House

Main Blocks

The main blocks on the Estate, are arranged in three distinct groups as follows:

Group 1: Located at the northern end of the site between Ladbroke Grove and Wornington Road/Portobello Road link.

- Thompson House.
- Norman Butler House.
- Paul House.
- Olive Blythe House.
- Rendle House.
- Wells House, and
- Murchison House.

Group 2: Located between Telford Road and Wornington Road/ Portobello Road link.

- Katherine House.
- Macaulay House.
- Chesterton House.
- Breakwell Court.
- Chiltern House.
- Paul House, and
- Watts House.

Group 3: Located on the northern side of Athlone Gardens adjoining Portobello Road and Telford Road

- Telford House.
- · Wheatstone House, and
- Faraday House.

Entrance at Lionel and Watts Houses

The design of all these buildings is predominantly the same with the following key characteristics:

- The buildings are medium rise, deck access flat blocks between 4-6 storeys.
- The buildings do not front the streets as in traditional designs. The first two groups are arranged around external open courts designed as landscaped spaces or car parking areas and the third around Athlone Gardens, the publicly accessible park.
- All of these buildings have direct access to individual flats at ground floor or sub basement level, with large central circulation cores to deck access at first and fourth floor levels
- The circulation cores are located at the ends of the buildings or where a number of buildings join and this facilitate links between the buildings within each group.
- Deck access is not provided on each floor therefore some flats gain access via additional stairs to maisonettes or flats on upper or lower levels.
- Access points to the upper floor decks are restricted to a few major entrances servicing a large number of households, and
- Many of the flats are maisonettes, interlinked with different neighbours, causing problems with sound transmission, identification of location, etc
- The arrangement of the flats within the buildings is confusing.

These key characteristics result in a number of underlying issues which, despite a programme of improvements over the past ten years, remain fundamentally unresolved. These issues relate to poor security, difficulties in maintenance and policing of the buildings and a lack of privacy for the residents and have been identified as follows:

- Despite being dual aspect flats, many of them do not benefit from the arrangement because of the deck access design.
- Public access to the external courts results in both facades of the buildings being public compromising the security of the ground floor dwellings.
- The restricted number of entrances and their concentration at the ends of buildings reduces pedestrian activity to a few key locations.
- The complex arrangements of both the flats within the buildings and access to them make it difficult to find your way around.
- The courtyard arrangement of the blocks means the dwellings look internally to the courts and as a result there is poor natural surveillance of the streets.
- Unauthorised access, poor legibility and difficult to monitor communal areas have resulted in circulation areas becoming through routes and locations for anti-social activities which compromise household security.

Internal Layout and Communal Areas

Tenants highlight various issues relating to the design and maintenance of communal areas within the buildings, including:

- Difficulty with access to the buildings/dwellings including entry phones and security doors not working, lifts not working, security doors too heavy and unauthorised access to the buildings.
- The appearance and cleanliness of the communal areas.
- · Refuse chutes too small or not working.
- Issues around the deck access including poor security and noise.

Within their home, almost all Wornington Green tenants highlight at least one issue as a serious problem with the most significant issues identified being:

- · Damp and condensation, and
- Issues relating to unmodernised rooms or building design such as:
 - · Out-of date bathroom and kitchen fittings
 - Cracks in walls or ceilings.
 - Badly fitting doors and windows.
 - Poor soundproofing; and
 - Poor ventilation.

In terms of the internal arrangement of flats, while residents are generally happy with this aspect, some of the flats have kitchens and bathrooms which fall below current space standards, an issue which would be difficult to resolve with refurbishment.

The Options Appraisal identified that bringing the flats up to Decent Homes Standards would not address the fundamental weaknesses of the built from and surrounding environment and would fail to resolve all of the issues within the residents' homes. Similarly, significant improvements including full refurbishment and remodelling would leave many unresolved.

A significant objective of the regeneration of the Estate is to fundamentally resolve the current issues and to improve current conditions. This includes meeting current space standards, resolving overcrowding, improving resident's health, reducing fuel poverty and creating a safe and secure place for residents.



Refuse chute at top floor level



Chesterton House entrance on Portobello Road

Construction/Materials

All properties are of load-bearing masonry with concrete floors to the flats and maisonettes and timber upper floors to the houses in Munro Mews. Many of the blocks are constructed with exposed concrete to floor slabs, balconies and roof edges. Most of the blocks have flat roofs; some have had pitched roofs installed post-completion. The method of construction results in a number of issues for the flats as identified by both the residents and the Project Team:

- Poor thermal performance of the flats as a result of uninsulated external cavity walls, and cold bridging.
- Severe condensation problems, mould growth and running condensate water on windows.
- Those without the new roofs demonstrate typical problems of flat roofs, such as poor insulation leading to cold-bridging and condensation within flats, and cracks to flat roof covering causing leaks into top floor flats.
- Historically, there has been a district heating system
 on the Estate, served from boilers beside Watts House.
 Replacement of the district heating system began in 1999
 on a phased basis with individual boilers being provided
 for each home.

4.1 Introduction

The principles and strategies identified here for the development of Wornington Green are based on a thorough understanding of the political, social, environmental and physical context of the estate within Greater London, RBKC and North Kensington. This section defines the policy context and the development objectives for the regeneration, identifying minimum standards where necessary to ensure the quality of the development to meet KHT's aims and aspirations.

Summary / Overview

The redevelopment of Wornington Green provides both a tremendous opportunity and a great challenge in ensuring the long-term sustainability of the new community.

The re-provision of the existing affordable dwellings, the need for regeneration and the demand for huge growth in the population of London further support the opportunity to increase density at Wornington Green.

RBK&C guidance suggests that densities in excess of 600 habitable rooms per hectare would fall outside the current regulatory framework. However, testing models and current thinking suggest that densities in the region of 700-800 habitable rooms per hectare could be achievable.

Urban renaissance thinking maintains that urban intensification is inherently more sustainable than low density developments. Urban policy in London is partly about securing the future of the city as a world capital by supporting the accommodation needs of its growing workforce. Higher densities support the capital's drive towards securing a sustainable future in three ways:

- In social terms because it encourages mixed communities, enhancing social capital.
- In economic terms because it brings economies of scale in services and markets.
- In environmental terms, owing to reduced carbon footprint of new dwellings built to modern standards, replacing environmentally poor existing homes.

At Wornington Green, the proposed increase in density is such that it falls into the category of 'super density'. A vital requirement for the long-term sustainability of the new development is the provision of affordable family housing and the integration of mixed tenures across the whole development. We have taken as our definition of family housing any home with two or more bedrooms, in recognition that two bedroom apartments can often accommodate a couple and two small children. Also, the objectives and strategies set out apply across all tenures (unless otherwise stated) for simplicity and to ensure future flexibility.

In the current market many dwellings end up being sold to speculators or investors and rented out, on a short term basis. It will be important that everything possible is done to prevent this from happening in the regeneration of Wornington Green as the impact on building a sustainable community could be considerable.

Flexibility should be maximised through all aspects of the design and development process; a 'loose fit' approach is to be taken to enable future change not only in tenure and occupancy but also in potential use. Designing-in flexibility will enable Wornington Green to evolve and change as social and economic demand change over time.

The buildings should be robust, adaptable and flexible, allowing different uses over time. The ground floor of building frontages on Portobello Road for example should have a minimum floor to ceiling height of 2.5m to facilitate retail or commercial uses in the future.

Place-Making

The creation of an appropriate context for an increase in density at Wornington Green requires a thorough place-making approach. Work already undertaken with local stakeholders should be built on and stakeholders brought together to create a successfully animated, mixed use environment which is sustainable in social, economic and environmental terms. Experience of place-making should be encouraged in the composition of the development team and be clearly evident in its activity and programme.

Project evaluation and approval should be on a broad enough range of criteria to pick up evidence of successful place making.

Key Principles

- Processes should be employed to bring together the local stakeholders with developers and their professional advisors to create a shared vision for Wornington Green of an animated environment in which mixed communities can successfully thrive.
- The social and economic case should be thoroughly made, and set alongside considerations of physical context. An overly restrictive or overly sensitive approach to form and scale should not be used as a pretext for constraining substantial development at Wornington Green. This may lead to lost opportunities for building social and economic regeneration.
- Wornington Green should be used to provide critical mass and economy of scale to address current deficiencies both on and off site, and
- Existing tools should be used to establish an holistic and appropriate context for the proposed masterplan.
 e.g. CABE Building for Life (Proposals should achieve Gold Standard under this scheme), Housing Corporation Sustainability Toolkit, Housing Quality indicators.

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4.2 Policy Context Overview

The future regeneration proposals for Wornington Green will need to reflect the adopted policies and good practice guidance set out in:

- National Planning Policy: Planning Policy Guidance (PPG) and their replacement Planning Policy Statements (PPS).
- Strategic Planning Policy: The Greater London Authority's (GLA) London Plan and its Proposed Alterations and Modifications.
- Local Planning Policy: The Royal Borough of Kensington and Chelsea's (RBK&C) Unitary Development Plan (UDP) and the replacement Local Development Framework (LDF), together with associated Supplementary Planning Documents and Guidance (SPD / SPG).

The 'London Plan' and a number of relevant national planning policies postdate the publication of the Council's UDP which is dated May 2002. In those instances where there is a conflict between UDP policies and national/regional guidance, the latter will generally take precedence.

It is also important to acknowledge that the planning policy context may change during the progression of the regeneration proposals for Wornington Green. Development proposals will therefore need to take into account the future requirements of emerging planning and government policy.

At the regional level, The Mayor has recently consulted upon draft Further Alterations to the London Plan. Adoption and publication of the Further Alterations is scheduled for 2008. At the local level, the Council's UDP is due to be replaced by a Local Development Framework (LDF). Whilst currently in the early stages of developing its emerging LDF, the RBK&C will be expected to fall in line with strategic guidance set out in regional and national policy.

In terms of its current status, the Council submitted its Statement of Community Involvement to the Secretary of State in January 2007 and the public examination has been held in June 2007. The document sets out a time frame indicating the adoption of the Core Strategy in November 2008 and adoption of Development Control Policies, Site Specific Allocations and the Proposals Map in July 2010.

4.2.1 Design Influences and Guidance

The regeneration of Wornington Green provides a significant opportunity to contribute to the Government's Sustainable Communities Agenda. According to the DCLG's definition: Sustainable communities are places where people want to live and work, now and in the future. They meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all.

The Sustainable Communities Plan identifies eight key components that all sustainable communities should be:

- Active, inclusive and safe fair, tolerant and cohesive with a strong local culture and other shared community activities.
- Well run with effective and inclusive participation, representation and leadership.
- Environmentally sensitive providing places for people to live that are considerate of the environment.
- Well designed and built featuring quality built and natural environment.
- Well connected with good transport services and communication linking people to jobs, schools, health and other services.
- Thriving with a flourishing and diverse local economy.
- Well served with public, private, community and voluntary services that are appropriate to people's needs and accessible to all.
- Fair for everyone including those in other communities, now and in the future.

All proposals for the redevelopment of Wornington Green must be drawn up to:

- Include the components of a 'Sustainable Community' as listed above.
- Reflect the principles of a design-led approach to development as set out in PPS3, and
- Follow the principles amplified in good practice guidance including:
- The Urban Design Compendium, EP 2000.
- By Design. Urban design in the planning system towards better practice, DETR 2000
- Safer Places: The Planning System and Crime Prevention, ODPM 2004.
- Cleaner, Safer, Greener Communities: How to Guides, ODPM 2007.
- It's Our Space, Cabe 2006.
- Spaceshaper, Cabe 2006.



4.3 Access and Movement

4.3.1 Overall Movement Framework

Objective

The original streets on Wornington Green were laid out in the traditional form of a distorted grid and integrated seamlessly into the surrounding fabric of Kensington. Following historic routes and desire lines, the streets were well connected, permeable and maximised the ease of movement for pedestrians and cyclists. In the context of the regeneration of Wornington Green, this traditional form of streets should be reinstated to give the residents the opportunity to utilise sustainable transport methods wherever possible.

The movement framework should be designed to provide the maximum amount of choice for journeys with particular emphasis on the accessibility and convenience of active and public transport modes (but not to the detriment of other modes). In this way the movement framework should positively discriminate in favour of walking, cycling and public transport.

Additionally, in the context of the principles of permeability and accessibility, the proposed road network should aim to reinstate historic routes and pedestrian desire lines to reconnect currently disjointed parts of the urban fabric.

Key Principles

- An overall movement framework is to be established which identifies a hierarchy of roads, access to public transport, and pedestrian and cycle movement.
- The movement framework is to positively discriminate in favour of sustainable transport modes in the order of pedestrians, cyclists, public transport and private vehicles. This should not, however, inhibit the movement of the car.

4.3.2 Street Network

Objective

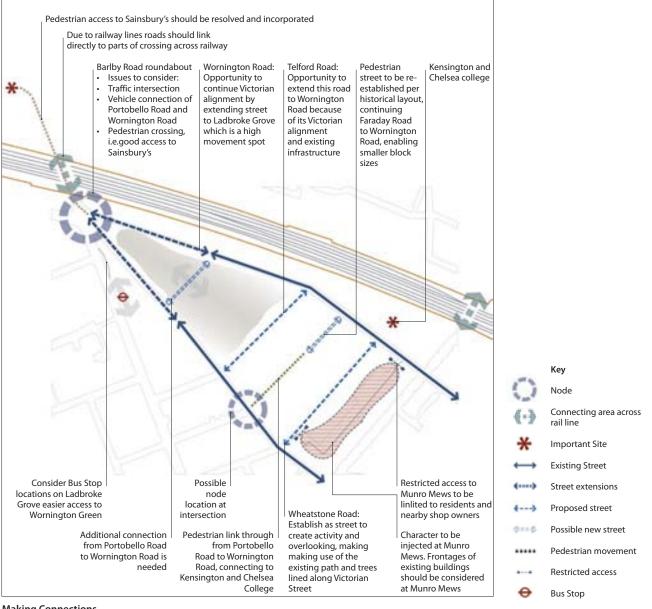
A new Wornington Green seamlessly integrated into the traditional street network of the surrounding area with streets that are permeable, legible and directly connected to existing routes and facilities. The street network should have a clear hierarchy and be designed to be safe for all users.

Key Principles

Re-establish original Victorian alignment of streets including:

- Portobello Road and Wornington Road through to Ladbroke Grove at Barlby Road roundabout.
- · Wheatstone Road.
- · Telford Road.
- Additional streets to improve accessibility, permeability to facilities and existing routes.
- The junction design of Wornington Road/Portobello Road/Ladbroke Grove at the Barlby Road roundabout to be designed to avoid creating a rat run through/ adjoining the development.
- Access to Munro Mews could be restricted for residents, shop servicing and access to garages for market stalls i.e. not a through route.





4.3.3 Streetscape – Character and Scale/ Dimensions

Objective

The street is the most prevalent public space. Streets bring vitality to the places where we live, encourage interaction between people from all walks of life and provide the opportunity to create distinctive places on your front door.

The RBK&C has distinctive, robust streetscapes which follow traditional principles. The character of the street is determined by the combination of the scale of both the street and the buildings which line it, the arrangement of parking, the choice of materials and landscape and the street furniture placed along the street. Parking is on street, street furniture is well placed and uncluttered and the materials are attractive and hard wearing. Additionally, street trees form a major part of the streetscape, adding colour and life to an otherwise very urban environment.

The design of the streetscape for Wornington Green should follow the principles of streetscapes prevalent in the rest of the Borough providing a clear hierarchy and including visual amenity for its residents.

The streetscape character should respect and complement the streetscape of the surrounding area, and the scale and dimensions of the streets should be functional and safe.

Key Principles

- Portobello Road is to be the principal route through the development.
- Wornington Road is to be the secondary route through the development.
- Additional routes should be provided to add permeability, legibility and access.
- The roads should be designed as traditional streets with a vehicle carriageway, parallel parking spaces (where possible), kerbs and pedestrian paths on either side.
- Street designs should incorporate the requirements of the refuse strategy and comply with emergency vehicle access requirements.
- All streets should be designed and built to RBK&C adoptable standards (RBK&C adopted Supplementary Planning Guidance: Transportation Standards).

4.3.4 Parking

Policy Context

The Council's UDP sets out a series of maximum car parking standards which for flats of up to 5 habitable rooms equate to 1 space per dwelling (reduced to 0.66 space per affordable dwelling). However, given the good accessibility of Wornington Green to a range of public transport options, some permit free parking may be appropriate. This approach is supported in the Council's Supplementary Planning Guidance. In this scenario

some tenancies or leasehold properties would be expected to rescind any rights to obtain parking permits within the Borough. Objective

The provision of parking on Wornington Green should be in line with the principles of sustainable transport and as such it should be a reduced car development. Additionally, the visual impact of cars should be mitigated so that they do not dominate the streetscape. It is therefore essential that undercroft and/or underground parking be considered. The existing land levels will assist in this, as many of the existing residential blocks to the north of the estate are set below road level. In order to ensure that these parking areas are secure, it will be necessary to consider a concierge system or controlled entry and, because of the need to apply service charges for this benefit, it is most likely that this type of parking will be suitable for private sale homes only. This strategy will leave parking at grade, where it can be overlooked, for residents.

Parking below grade can be achieved by a number of means:

- Single-aspect homes or shops at ground floor level, with a courtyard amenity space provided at first floor level above a parking court;
- High level windows at the rear of perimeter housing where the parking is at semi-basement level, and amenity space is a half-level above ground;
- Fully underground parking courts, with central amenity space at grade level.

In addition, innovative programmes such as car clubs should be explored to provide further opportunities to reduce parking requirements without reducing access to cars.

Furthermore, parking should be safe, secure and convenient.

- Parking provision should be provided in accordance with the parking standards (Planning Standards section of the RBK&C UDP 2002).
- The scheme should be designed as a reduced car development, with a target of 0.5 spaces per dwelling unit.
- Reduced parking provision should be offset by the provision of a car club on site.
- A number of car-share on-street parking places should be provided.
- Residents to be instructed on the benefit of car share schemes.
- Parking should be provided as:
 - In line on-street parking.
 - Secure, controlled access, underground or at grade parking within the perimeter blocks, or
- In the case of Munro Mews, on street parking, perpendicular to the kerb should be considered.
- All on-street parking should be overlooked by adjacent dwellings.

4.3.5 Public Transport

Objective

Public transport needs to be safe, convenient, reliable and accessible in order to encourage people to use it. In the regeneration of Wornington Green, improvements to the public transport to encourage increased use should be investigated.

Key Principles

- · Potential of additional lateral bus route to be explored
- Relocation or additional bus-stops on Ladbroke Grove to encourage bus use to be considered.



4.3.6 Pedestrian Network

Objective

Walking is not only a sustainable form of transport, it also provides many benefits in terms of impact on health and lifestyle. RBK&C is a densely populated borough and, as a result, many services, facilities and attractions are within walking distance. The regeneration of Wornington Green should create a safe, attractive and convenient pedestrian environment. All pedestrian paths should be legible with clear sight lines and well overlooked. They should be provided along pedestrian desire lines and be direct.

Key Principles

- Pedestrian pathways should be provided on both sides of all streets.
- All Pedestrian pathways should be overlooked by adjoining dwellings.
- Direct, prioritised pedestrian movement from Ladbroke Grove to Portobello Road should be encouraged.

4.3.7 Cycle Network

Objective

Adequate facilities and services need to be provided within the development to encourage cycling as a convenient and viable transport mode. This should include provisions for cycle storage for both residents and visitors. RBK&C's cycle strategy aims to encourage cyclists to use the street network, without the provision of dedicated cycle paths and lanes. This is to create a street which caters for a variety of transport modes and makes all road users aware of each other.

Key Principles

- Ample cycle storage should be provided
- Additionally visitor cycle spaces should be provided.
- Cycle storage should, where possible be covered, convenient and secure.

4.3.8 Future studies

- A Traffic Impact Study including Barlby Road roundabout and junction capacities, impact of the increased density of traffic etc.
- A Traffic Survey to include parking provision.
- A feasibility study to estimat potential.
- Additional revenue generated through the sale/lease of private car parking spaces.

The following studies will be needed at the Masterplan Stage:

- A feasibility study to determine need, viability and route of an east-west bus service across Golborne Road Bridge.
- A pedestrian movement study (potentially Space Syntax or similar) to determine potential changes in pedestrian footfall around Portobello Road and Golborne Road markets as a result of the realignment of Potobello Road. This will help to inform other strategies such as retail/ mixed use, public transport and open space.

4.4 Open Space & Landscape

Policy Context

In accordance with RBK&C's UDP there will be a presumption against the loss of any publicly accessible open space within Wornington Green, although opportunities to better re-distribute the existing open space within the Estate might be possible within the context of the policy objectives (including, potentially the redistribution of the large public open space at Athlone Gardens).

The provision of new and improved open space and/or play facilities for prospective residents is also sought by a number of UDP Policies and would be applicable to any

comprehensive redevelopment proposal for Wornington Green. To meet UDP requirements these spaces should be designed and landscaped to a high standard, be fully accessible to residents, meet a broad range of community needs and help improve safety and security.

There are a number of important trees within the Wornington Green Area, many of which are covered by Tree Preservation Orders. UDP policy requires that development proposals should not result in unnecessary damage to or loss of trees. In those instances where tree removal is necessary, suitable replacement provision should be made.

4.4.1 Athlone Gardens

Objective

The reprovision of Athlone Gardens within the new redevelopment is fundamental component to delivering a masterplan for the wider Wornington Green Estate. In order for the new park to be successful, the landscape design needs to be integral to the architectural and urban design rationale for the rest of the masterplan.

Atlhone Gardens should be considered as the main civic focus for the local community and provide interest at a borough level.

As a minimum, the current gross area of the park, defined by the existing railing boundary plus the kick-about area should be maintained in any reprovision of this space. The park should also, ideally, be reprovided as one contiguous area and not by separate or fragmented green spaces through the estate. Given the likely duration of the implementation programme, comparable park facilities should be provided during each phase of the development.

The new park should be safe, accessible and have good natural surveillance.

The open space should be attractive, usable and of a high quality, and contribute to the visual amenity of the surrounding area.

The design of the park should provide for flexibility in the future to meets both current and future needs of the residents of Wornington Green and the wider community.

The location and design of the park should promote greater social inclusion and ownership by both the residents of Wornington Green and the wider community.

- The park area should be retained/reprovided as one whole if possible.
- The park should have both a frontage to and a key entrance on Portobello Rd.
- Entrances and paths within the park should connect directly with adjoining pedestrian desire lines.
- The park should either be locked and secure at night time or accessible at night time, pedestrian routes should be well lit whilst minimising light intrusion and impact on wildlife.
- Increase confidence in using open space is achieved by design which is sensitive to issues of safety, anti-social behaviour and fear of crime in green spaces.
- All buildings adjoining or overlooking the park should be frontages.
- The park should meet RBK&C's 10 Year Parks Strategy for 'Excellent Standard'.
- The new park should be designed to meet Green Flag benchmark.
- A Detailed Management Plan should be developed alongside the design.
- The park should include provision for formal and informal, passive and active, recreation.
- Effective public involvement should take place throughout the design process.
- Community facility/local activity (café, interpretation/ education/park keepers office) should be designed around the park to optimise safety and increase natural surveillance
- A range of local public art (signs, furniture, metal work, wall & floor art etc) should be incorporated.



4.4.2 Communal Open Space

Objective

Increasing development density requires that the usability and value of external spaces is maximised. A key consideration is that there is a clear definition between public and semi-private/communal spaces. Communal spaces should be physically but not necessarily visually secure from highway areas and public open space and the areas. The communal open spaces should be easily accessible to residents with well defined circulation and access routes.

Areas that remain in continuous shade within communal garden areas to be be minimised by appropriate building orientation and massing. The Building Research Establishment: Site Layout for Daylight and Sunlight (BRE209) guidelines should be regarded as a minimum standard.

Key Principles

- Semi private communal space should provided in the form of communal gardens with restricted access.
- 70% of courtyards areas should be of soft landscape with the remaining 30% hard surface.
- Grass areas should be designed to maximise use.
- Plant species should add visual interest and variety.
- All pedestrian paths should be legible and safe, welloverlooked.
- Ground floor dwellings should have direct access to communal space.
- A range of local public art (signs, furniture, metal work, wall & floor art etc) reinforcing the character of the neighbourhood should be incorporated.

4.4.3 Private Amenity Space

Objective

Ground floor dwellings should have front doors on street and a front garden – 'defensible space' large enough in area to accommodate a dustbin store and /bicycle/motor cycle storage space. Secure access should be provided from ground floor dwellings to front and also rear garden areas. and rear garden spaces are to be fully secure by boundary walls. Sunlight should be maximised as Communal Open Space. Open access balconies/walkways should be provided in redevelopment.

- The boundary of defensible space should be well detailed wall or parapet & railings.
- Shrub planting/hedge should be provided where space allows especially where railings are provided, to increase privacy and add visual amenity from the street.
- Small patios or gardens should be provided at ground level
- Private gardens should back onto communal open space only.
- All flats should be provided with balconies of a useable size to accommodate table and four chairs.
- Roof terraces/gardens should be provided where possible for private or communal use and be high quality usable spaces: predominantly soft landscape, visually interesting, secure and accessible.



4.4.4 Play Facilities

Policy Context

The Mayor of London's policy on 'Providing for Children and Young People's Play and Recreation' and RBKC's play provision strategy requirements are met in the development.

Objectives

The external environment should be designed as a safe but stimulating environment for children & young people and safe routes for children should be provided to access the various play facilities and spaces within the development. Formal play facilities should be provided to meet the needs of different age groups. These should also be safe, secure, stimulating and accessible.

The play provision should meet both current and future needs of children & young people and there should be no net loss of overall play space(s) throughout the life of the regeneration. Play space(s) should be safe, stimulating, and accessible and have good natural surveillance.

There should be no net loss of overall Venture Centre space and facilities throughout the life of the regeneration and any re provided facilities should have a positive external appearance and relationship with the park.





- Effective public involvement of children and young people in the design process and through the construction process is essential to foster a sense of ownership.
- An agreed Management Plan should be drawn up involving local children and young people in the process.
- Formal play areas for children under 5 should be provided within 150 metre from all new homes/family dwellings.
- Junior play areas should be located within 400 metres of all new homes/family dwellings. Provision for this could be met within Athlone Gardens.
- The different cultures within the surrounding community should be reflected in the design and provision of play facilities.





4.4.5 Biodiversity

Policy Context

The RBK&C Biodiversity Action Plan 2007 to 2011 lists a series of objectives, actions and targets. There are no specific targets for Wornington Green Estate, but many of the borough wide objectives could be applied to the regeneration of the estate. RBKC also has a local species action plan for woodland, tree and hedgerow species. This would need to be a key reference point for any replanting which is carried out across the estate area.

Objectives

The open spaces within the masterplan should be designed not only to optimise visual and recreational value but to maximise opportunities for wildlife habitat Tree planting should also be maximised within the new master plan to ensure there is no net loss of tree cover.

A wide range of planting types should be incorporated including native species to maximise habitat potential and biodiversity value supported by appropriate ecological management measures.

Opportunities should be maximised for habitat creation through appropriate management of green spaces.

- Where possible existing trees where identified as having a good shape and form with a long life expectancy should be retained.
- Vertical planting (cable stays) and nesting boxes (invertebrate/bird/bat) should be integrated within building design.
- A programme to engage the range of planting should include shrubs, herbaceous, bulb layers and wildflower grassland.
- All non accessible flat roof areas optimised as green or grey roofs.
- Maintenance & management regimes should be adopted which protect, enhance and promote different habitats.
- 30% of the recommendations for bio diversity enhancements met in accordance with the Code for Sustainable Homes.
- Local community in biodiversity initiatives should be integrated into the masterplan design process.
- Changes to ground maintenance contracts to facilitate habitat.
- Creation of loggery (insect habitat).
- · Creation of wildflower borders within park.
- Installation of nesting boxes including bird and bat boxes.
- · Installation of bird feeders.
- Modification of floodlighting to reduce intrusion.
- Installation of interpretation boards.
- Coordinate with residence groups to encourage biodiversity initiatives.



4.5 Land and Building Use

4.5.1 Policy Context

The Government's Sustainable Communities Agenda is supported by policies outlined in:

- PPS1: Delivering Sustainable Development.
- PPS3: Housing.

These planning policies cover:

- Making suitable land available for development in line with economic, social and environmental objectives to improve people's quality of life.
- Protecting and enhancing the natural and historic environment and existing communities.
- Ensuring high quality development through good and inclusive design, and the efficient use of resources.
- Ensuring that development supports existing communities and contributes to the creation of safe, sustainable, liveable and mixed communities with good access to jobs and key services for all members of the community.

A key objective in promoting sustainable economic development is to provide an adequate amount and type of housing. Local planning authorities are encouraged to 'ensure the provision of sufficient, good quality, new housing (including an appropriate mix of housing and adequate levels of affordable housing) in suitable locations, whether through new development or the conversion of existing buildings. These objectives are reiterated in PPS3 which seeks to ensure the provision of a mix of housing, both market and affordable, particularly in terms of tenure and price to support a wide variety of households in all areas.

Alongside the Government's sustainable communities agenda is an aspiration to ensure that the most efficient use is made of the available land. PPS3 notes that while more intensive development is not always appropriate, ... when well designed and built in the right location, it can enhance the character and quality of an area'. In considering the 'right' locations for housing intensification the Government is committed to maximising opportunities on brownfield (previously developed) sites which offer a good range of community facilities and with good access to jobs, key services and infrastructure.



Massing Study – looking North-East across reprovided Athlone Gardens

Residential Density

In accordance with national, regional and local planning policy the favoured land-use in any redevelopment of Wornington Green is for continued residential use.

However, in considering the redevelopment of the site, both PPS3 and The London Plan clearly articulate the need to realise higher densities. Any future development within Wornington Green must therefore be designed to make the best and most effective use of the available land, particularly taking into account the accessibility of the site and the townscape benefits which could derive from a comprehensive redevelopment proposal.

The London Plan sets out proposed density levels for future development based upon the location of a site, its setting in terms of existing building form and massing, and its public transport accessibility. As already mentioned Wornington Green is identified as having a PTAL of 3. Within this context the matrix indicates that densities of between 300 and 450 habitable rooms per hectare, (hrh equivalent to 100–150 dwellings per hectare) are appropriate where the development will mostly consist of flats. The Mayor's proposed further alterations to the London Plan include a revised density matrix, but in the

context of Wornington Green no amendments to the adopted density levels are proposed. The density matrix is not intended to be static and densities above the maximum threshold may be appropriate on a site specific basis, particularly where future transport proposals improve the public transport accessibility rating. RBK&C planning officers have indicated that 600-700 habitable rooms per hectare may be acceptable on this site. Housing Mix

In accordance with UDP policy, which requires an appropriate mix of dwellings types and sizes within any development scheme, the redevelopment of Wornington Green should be based on an up-to-date analysis of housing need in the locality.

The Mayor's SPG on Housing also sets out general housing mix targets for London, which indicate a particular need for family accommodation (both in private and affordable tenures). In meeting this requirement the GLA's SPG on Housing notes in the context of Estate renewal programmes that redevelopment to achieve a more appropriate housing mix may lead to a loss of dwellings. This is considered to be acceptable where it is justified by housing requirements and where there is no net loss of total habitable rooms.



Massing Study – looking South from Barlby roundabout



Housing Tenure

At present the housing tenure within the Estate is exclusively affordable. In accordance with UDP policy it is expected that these units will be replaced in any development proposal in accordance with local housing needs.

The Council's Policies further indicate that at least 33% of any new housing should be affordable. The London Plan, which postdates the Council's UDP, proposes a more stringent target that 50% of new housing be affordable. In developing its emerging LDF the RBK&C will be expected to fall in line with this strategic guidance.

While opportunities to further increase the amount of affordable housing provision within Wornington Green will be supported, it is acknowledged that in order to create a balanced and sustainable community and to promote a viable development, a significant element of any additional accommodation will take the form of private housing. This approach is supported in the GLA's SPG on Housing which notes that:

'To achieve 100% replacement of demolished social rented units, development at significantly increased density may be necessary to generate sufficient value from market development to support replacement of affordable housing provision or to achieve a mixed and balanced community objective. In such a case, the net gain in total provision need not achieve the usual proportion of affordable housing provision expected from a new build development.'

In order to provide a balanced supply of housing, the London Plan advises that the affordable housing provision should comprise 70% social for rent and 30% per cent intermediate housing in the form of shared ownership or shared equity housing.

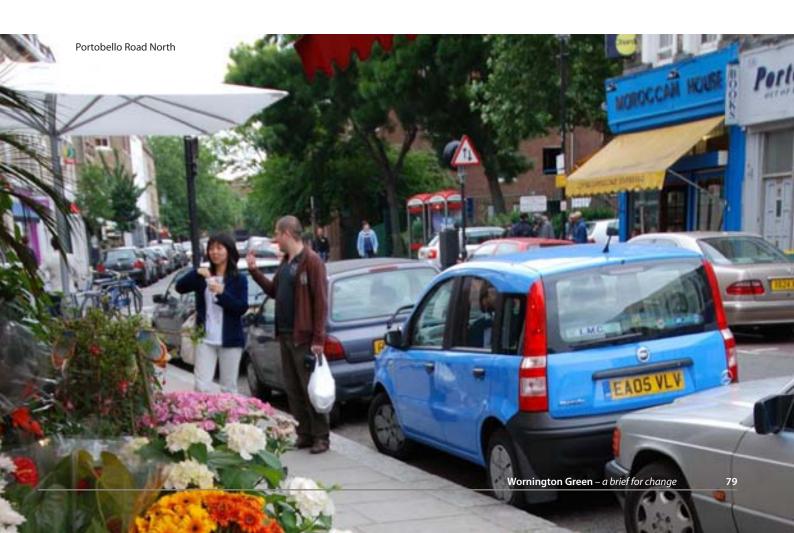
Early discussions with the GLA suggest that there are specific requirements for this site which will include 100% replacement of affordable housing to resolve current overcrowding. It is presumed that, as the cost of this will be financed through cross-subsidy, a lower overall percentage of affordable housing will be acceptable.

Social and Community Uses

In accordance with UDP Policies, the existing Community Centre (The Venture Centre and Adventure Playground) should be retained or re-provided within any redevelopment proposal. New social and community uses and facilities will also be encouraged in appropriate locations where they relate to the needs of the local community.

Retail Provision

There is a small shopping/retail area at the north of the estate adjacent to the Banlby Road roundabout. In order to complement and enhance the vitality and viability of nearby shopping areas (including Portobello Road, Ladbroke Grove (north) and Golborne Road (north), any redevelopment of Wornington Green should maximize linkages to these areas. Opportunities for the provision of new retail and restaurant facilities along Portabella Road and within Wornington Green might also be acceptable where there is no adverse affect on residential character or amenity, no material increase in traffic or parking and where there would be no harm to the vitality and viability of the established shopping locations.



4.5.4 Residential Land Use

The site is to be redeveloped predominantly for residential purposes with no net loss of affordable housing.

The primary goal for KHT is the re-provision of the existing 538 affordable dwellings for rent in a sustainable development and community which meets both housing need and resident aspirations.

An increase in density (the number of homes in the area) is sought to maximise the development opportunity within the site while developing and sustaining a high quality built environment which supports a vibrant, healthy and economically viable community.

The higher densities should be located around the public open spaces such as the reconfigured Athlone Gardens, along the northern edge of the site bounding the railway line and at key landmark locations such as the proposed junction between Ladbroke Grove, Portobello Road and Wornington Road. The increase in density will enable the addition of private sale dwellings and mixed use buildings. A pepper-potting of tenures is required with a tenure-blind approach (no clear distinction between tenures) to all buildings.

Different tenures should be distinguished by vertical core separation only. Private dwellings can be located within the same building as affordable dwellings if doing so facilitates the appropriate location of specific dwelling types: e.g. private flats with independent access cores and circulation located above affordable maisonettes with individual front doors accessed directly from ground level.

The provision of family units is a key consideration in the development of the masterplan. For most people a family flat is second-best to a house and the challenge for the Masterplan design and KHT is to mitigate the downside of flat dwelling. Family units at ground floor level with private gardens and front door to the street capture some of the advantages of a house. There will inevitably be limited floor space available for family flats at ground level therefore the use of narrow fronted maisonettes (or duplexes) is sought here as it will both double available floor space and further enhance the active streetscape with front doors serving individual dwellings.

Maisonettes at ground and basement level should be used where appropriate to increase overall floor space within the block. While a basement-only flat may offer inadequate outlook, a ground / lower ground floor maisonette can capture the advantages and efficiencies commonly found within RBK&C street properties.

Top level flats, although dependent on lifts, should be utilised to provide additional family accommodation with the benefit of large terraces. These top level dwellings should be used for the provision of private family sized penthouses and affordable family units.

Overcrowded families with a large number of adult members should be offered two normal-sized adjacent homes to suit their needs, interlinked to maintain family life and routines, but suitable for conversion back to the normal sized homes when required.

- The proposed density should maximise the capacity of the site while ensuring appropriate amenity provision.
- Tenure pepper potting with a tenure blind approach in relation to building appearance.
- No larger family homes (three bed +) should be provided above fourth floor (except as 'penthouse' with large amenity space.)
- Narrow fronted maisonettes should be used to optimise family dwellings with direct access from street level, and be provided with private patios or gardens with access to communal gardens.
- Masterplan and detail design should comply with Secured by Design standards.
- Internal space should be flexible for future uses.
- 10% of all new-build properties are to comprise of wheelchair adaptable dwellings and should be 15-20% larger than standard unit dwelling areas.
- All homes are to meet Lifetime Homes Standards.
- Accommodation for the elderly: A block of flats solely for the elderly should be a consideration.
- Home Space Standards: New affordable (and private) homes should be designed to meet current space standards as a minimum.
- New Home Sizes: New homes should be designed to provide a 'loose-fit'. So, for example, a 3-bed home would be suitable for 3, 4, 5 or 6 people. This reduces the number of dwelling-types, but provides greatest flexibility in letting. This increases the re-build area significantly and will create opportunity for additional funding. Refer to the proposed accommodation chart below which summarises the proposed accommodation to meet these criteria.
- Space standards required for the affordable dwellings are suggested for all tenures to enable future flexibility, with specific application for dwellings that are remote from the ground. This is in order to compensate for the reduction access to ground level facilities and amenity

Dwelling	No of	DWELLING	Habitable	Total	Total
Туре	Dwellings	Area (Net)	Rms / Dwelling	Net Area	Habitable Rms
1B2P	237	48.5	2.0	11494.5	474
2B4P	122	71.5	3.0	8723.0	366
3B6P	123	90.0	4.0	11070.0	492
4B7P	47	111.5	6.0	5240.5	282
5B8P	16	121.0	7.0	1936.0	112
Total	545			38464.0	1726

Proposed affordable schedule of accommodation

4.5.5 Local Services and Community Facilities

A network of community facilities and services which are accessible, inviting and cater for the needs of the local community should be established and integrated into the masterplan.

Shared use of facilities across tenures and with local community groups should be encouraged to maximise resources and improve safety and security

Community facilities such as the Venture Centre and the KHT Housing Office could be integrated within residential buildings at ground level. The provision of residential dwellings above community facilities could optimise the developable footprint and provide additional surveillance when facilities are not in use.

Key Principles

- Community facilities to be located for maximum public exposure, both to the residents and to the wider community.
- A detailed socio-economic study will be required investigating the roles, capacities and facilities of the existing community groups and services, both on Wornington Green and in the local area. This study will inform a detailed brief for the future requirements and how best to provide them.
- The Venture Centre should be reprovided on the estate with a direct relationship to Athlone Gardens.
- There should be a clear segregation between amenity space for the Venture Centre and that of Athlone Gardens
- Community facilities could be located within mixed use buildings to optimise development potential.

4.5.6 Retail and Commercial

There is significant potential to promote and design better and more attractive linkages with neighbouring shopping locations. As set out in GVA Grimley's Retail Capacity Assessment the significant redevelopment and growth of Wornington Green will benefit the overall vitality and viability of existing shops, stores and market stalls in the area as well as generating capacity for new retail floorspace. GVA forecasts the potential for the expansion of:

- Between 1,855 and 2,191sq. m net of new comparison goods floorspace at 2020, and
- Between 554 and 743sq. m net of new convenience goods at 2020.

Further studies and consideration concerning the inclusion of commercial and retail facilities should be undertaken. The amount of retail and commercial, and the ratio of this to the housing will be one of the key drivers in the development of the masterplan. Consideration of how these assets could benefit the community should be explored, with clear linkages made between the retail and socio-economic strategies. North Kensington already has a successful development trust, The Westway Development Trust, and the benefits of a development trust model for Wornington Green should be explored.

- A commercial / retail strategy is to be developed.
- The retail strategy should be considered within the context of the socio-economic strategy.
- The extent and location of the commercial / retail units will influence the masterplan and business plan.
- New facilities should complement those of Portobello Road, encouraging small local and specialist shops.
- The area could support the inclusion of a small superstore Tesco Metro etc.
- The benefits of forming a Development Trust (similar to the Westway Development Trust) should be considered as a means of keeping the assets in the area for the benefits of the community.

4.6 Urban Grain and Built Form

4.6.1 Policy Context

RBK&C considers that the special character of North Kensington should be protected and that all new development should enhance Kensington and Chelsea's environmental quality. The new development will also need to reflect Government thinking about urban design and housing development as stated in Planning Policy Guidance Note 3, and in the joint DETR and Cabe documents, "By Design, Better Places to Live, A Companion Guide to PPG3," and "By Design, Urban Design in the Planning System: Towards Better Practice."



Portobello Road North

4.6.2 Summary/Overview

The original layout of the Wornington Green area, a Victorian street pattern represented a built-form typical of RBK&C. It had well-connected streets, perimeter blocks, and smaller mews lanes at the rear of the properties. The demolished perimeter blocks contained over 350 buildings, most of these were terraced houses, but they also contained large civic buildings including a church and school, and public houses on street corners.

Redevelopment provides the opportunity to re-establish a street pattern within the estate area and recreate a more appealing thoroughfares than the access decks of the present estate.

A comprehensive reconsideration of the overall layout of Wornington Green is required, including the street network and pattern, form and location of the new residential blocks, public open space and communal open space for residents, the mix and location of community facilities and services.

The proposed increase in density at Wornington Green will require appropriately clear street patterns, urban legibility and the careful siting of blocks. The distinction between public and private domain will be of the highest importance.

The proposed urban block should take its form from the 'perimeter block' typical of that found across RBK&C. Whilst the majority of the site will be residential, some areas should have mixed use facilities which occupy the ground and lower storeys. Spaces, such as open piazzas, should be animated with active mixed use frontages and located strategically to link with the surrounding context of Ladbroke Grove, Portobello Road, Golborne Road and Athlone Gardens

The new development should effectively define the road frontage by providing a continuous, relatively unbroken street frontage of building facades related to the pavement line, similar to the surrounding Victorian streets, perhaps punctuated with mews type openings to lead, or provide visual links through, to internal amenity spaces or courtyards.

Key Principles

The Masterplan should:

- Set out three dimensional proposals for building, spaces, movement and land use.
- Define the height, bulk and massing of buildings.
- Link streets, squares and open spaces.
- Set out relationships between buildings and public spaces.
- Determine activities and uses which will take place in the area.

4.6.3 Legibility

The existing Wornington Green estate provides a confusing and dysfunctional environment. By comparison, a legible environment is somewhere which is easy to navigate on first visit.

Redevelopment provides an opportunity to create a recognisable urban identity, with subtle landmarks, gateways, nodes and focal points, resulting in a sense of place which is attractive, readable and easily navigable.

There are a number of views which will be important in considering any re-development of the site:

- Views from and across Ladbroke Grove towards the northwestern corner of the site, currently featuring Norman Butler House and appearing as a most unwelcoming entrance to the estate.
- · Views North from Portobello Road.
- Views East along Telford Road and Faraday Road.

While all these perspectives provide good opportunities, perhaps the most obvious opportunity for improvement in terms of the estate, which will address the surrounding area and advertise itself to the surrounding area, is the North-western corner of the site where Thompson House, Paul House, and Norman Butler House provide rather a grim introduction to the estate; redevelopment of this corner of the estate could provide some significant townscape benefit, offering the opportunity for a building or buildings of greater presence (which might include greater height) to provide a focal point at this location for views down and across Ladbroke Grove.

- A hierarchy of landmark/distinctive buildings should be established which complement rather than compete with the surrounding area.
- Buildings at the junction of Portobello Road and Ladbroke Grove should be designed as landmark/ distinctive buildings to mark it as an important junction and a gateway to Portobello Road.
- Corner buildings should be designed to either:
 - · Address both streets as frontages, or
 - Address the principal street as a frontage and have windows, etc, on the secondary frontage to provide good natural surveillance of the street.
- The design of the built form should incorporate subtle changes and respond to surrounding conditions to create different characters within the development, including:
 - · Portobello Road;
 - the junction of Ladbroke Grove and Portobello Road, and
 - Athlone Gardens frontage.



4.6.4 Public Realm

The intensity of use of the public realm and shared spaces will require location-specific design of varying scales, from the reprovision of Athlone Gardens as the primary public open space to individual private amenity space, which can be in the form of balconies, terraces or private gardens. Careful analysis is required to demonstrate comfortable conditions for people to enjoy, and appropriate habitat for plant species flourish.

The Landscape and Open Space section of this document has covered the requirements in detail. However, the built form and massing should be organised carefully in relation to environmental impacts on external space including sunlight and daylight, microclimate, wind and falling objects.

Private open space is highly valued and should be provided for all homes, whatever the dwelling tenure or type – houses, flats or maisonettes. The space provided must be safe for children and large enough for the entire family to sit out, receive direct sunlight at some time of the day at least and in any event be no less than 3 square metres in area.

- The provision of a range of private, communal and public spaces that are adequately connected.
- The classic Garden Square should be used as a model for the reprovision of Athlone Gardens.
- Proper provision is made for children to play in all communal space.
- Different categories of external space should be carefully located in relation to each other and the buildings surrounding them to maintain privacy and avoid conflicts in use.
- Children's play should be adequately catered for in existing public spaces; Athlone Gardens and the Venture Centre.
- Daylight and sunlight studies are to be made to minimise areas in permanent shade.
- Down draft wind and wind turbulence should be mitigated.
- Falling objects psychological and real barriers should be mitigated in the use of public realm immediately adjacent to tall façades.





Surveillance of communal area

4.6.5 Building Frontages and Edges

The building form should follow the street pattern, have front doors facing onto the streets and public open space, and enclose communal gardens.

This form is referred to as the 'perimeter block' and is similar to the historic streets surrounding Wornington Green. It is an appropriate form because it ensures that there is a distinction between private, semi-private and public space, it provides surveillance of the streets and public open space and is consistent with existing successful forms in parts of RBK&C and surrounding areas.

The masterplan should create a variety of spaces between buildings with differing levels of privacy which relate directly to internal and external uses of space and accommodation. The built form should be animated with active frontages and ensure that all dwellings are safe and secure

- The built form should be designed in accordance with the principles of 'perimeter blocks'.
- All dwellings should have clearly defined public fronts and private backs.
- The built form should define the street by providing a continuous, relatively unbroken façade. This can be interrupted with carefully designed mews type streets or openings, providing visual glimpses through to internal amenity spaces or courtyards.
- The built edge should generally adhere to a common building line to avoid areas that are hidden and out of site.
- Projections and set backs from the building line should be incorporated to add emphasis and interest at key locations.
- Back-to-back distances should be designed to take into account privacy, access to sunlight and daylight and provision of amenity space.
- All ground floor residential dwellings should have a zone of defensible space.
- All ground floor dwelling front doors and communal entrances should be accessed from the street.



Building frontages and surveillance



Typical garden arrangements in North Kensington

4.6.6 Building Heights

The perimeter blocks should be designed to vary in heights and provide architectural detail to build upon the characteristics of the surrounding area.

Building heights are to be proportioned to respond to the orientation of the site and maximise daylight penetration. There are a number of locations within the site where heights should be maximised or restricted in response to this requirement. Landmark buildings create visual interest and character, as well as help people to find their way to and within the site. However there will be few opportunities for such buildings, except principally at the proposed junction between Ladbroke Grove, Portobello Road and Wornington Road where a building of significant height may be used to mark the gateway to Portobello road and Wornington Green and at the ends of roads or key vistas in and around the site.

A typical building form should be designed to reflect the surrounding and site specific context and include a semi basement level and a setback terrace roof level. This built form is specific to RBK&C and the predominant proportions are (for example) a 5 storey building with three principal storeys, which prevent buildings from appearing overbearing and out of scale. Dual aspect accommodation should be optimised in the design. Cross-ventilation avoids the necessity of air conditioning and is an important consideration against the predictions of climate change. Dual aspect accommodation increase the likelihood of longer hours of good daylight penetrating the building plan. Any new development along Portobello Road is to be limited to six storeys (including top floor apartments with terraces) to enable light penetration over the buildings and maintain the historic scale and promotion of the street.

Development along Wornington Road, bounding the railway line, should both maximise the southern aspect and provide a barrier between the railway and the Wornington Green area.



Closing vistas and surveillance

- The heights and massing of the built form should respect and complement the surrounding built form.
- The heights and massing of the built form along Portobello Road should respond to the existing character of the street. This does not have to replicate the existing but needs to show how it complements it.
- The heights and massing of the built form should assist legibility of the new neighbourhood.
- The opportunity for a tall building at intersection of Portobello Road and Ladbroke Grove should be explored and additional height on buildings around the Barlby Road roundabout.
- All dwellings and open spaces should be attractive, and have good access to daylight and sunlight.
- The heights and massing of the built form should be designed so that all dwellings and open space/amenity spaces comply with daylight and sunlight access in accordance with BREEAM.
- The opportunity for additional height on building frontages overlooking the public park should be explored.
- The heights and massing of the built form should maximise the benefits of passive solar gain and orientation to the southern aspect.



4.6.7 Entrances

Ground floor dwellings should wherever possible have private entrances accessed directly from the street. This will reduce the number of residents using communal entrances and reinforce the street and local context.

Communal entrances should also be accessed directly from the street and form part of the street pattern. Entrances should be clearly distinguishable but should not dominate the built form. Access and circulation should be limited to distinct blocks with vertical core separation.

The design and management of communal entrances is of high importance in securing the long-term success of the development. All communal entrances should provide independent access for mail delivery, refuse disposal, storage for bicycles and prams and access to any secure parking and communal amenity space.

- All ground floor dwellings should have private entrances.
 accessed directly from the street
- All communal entrances should be accessed directly from the street.
- All communal entrances should use a secure entry system.
- Communal circulation cores should be limited to distinct blocks with vertical core separation.
- Entrances should be well lit, spacious and welcoming.
- Consideration should be given to provide a concierge system for the whole development.



Entrances from the street



4.6.8 Planning Arrangements for Flats

The development of the masterplan should consider the planning arrangements for the provision of all flats. It may be beneficial to apply differing arrangements for specific locations and varying tenures.

Corridor access will only be acceptable where the orientation of the block avoids north-only outlook and the quality of the view from both sides is equivalent. Corridor access will not be acceptable for the provision of family units, because this eliminates the potential of cross-ventilation.

Deck access carries a heavy stigma at Wornington Green as it is used across most of the estate at present and functions poorly due to the number of flats accessed in this way. The use of deck access should be limited in its application and serve no more than three dwellings in one direction from a distinct core at each level.

Decks will only be acceptable when they offer the opportunity to provide all flats with the best primary outlook (e.g. into a communal courtyard) and are located adjacent to non habitable rooms.

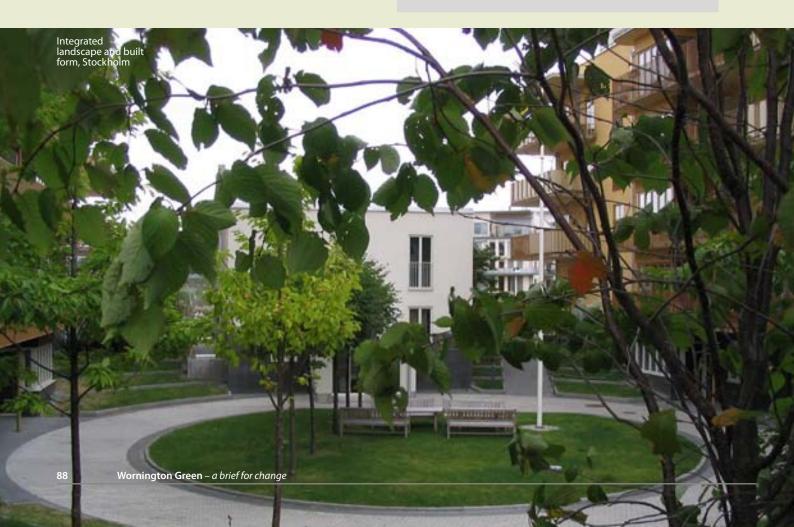
Core access is generally the most successful arrangement found in London and should be used as the primary arrangement in the development of the masterplan. Grouping between four and eight flats, but not more than 20-25 dwellings off one entrance, per floor around a single core will provide good efficiency of cores and afford dual aspects to dwellings.

Communal halls and corridors

Secure door entry systems should serve no more than a total of 20-25 dwellings to promote good neighbourhoods and optimise surveillance and informal 'policing' of the common areas.

Cores containing more than 20-25 affordable dwellings for rent will require additional security measures. With large numbers of flats the security of common parts (entrance lobbies, lifts, stairs and corridors) cannot be guaranteed simply by the provision of door entry systems, with or without remote CCTV. The only fail-safe method of achieving secure common parts above those numbers appears to be some form of full-time concierge, and this has financial implications for the residents.

- Core Access is recommended as the primary approach for the arrangement of dwellings.
- The number of affordable dwellings accessed from any communal entrance and circulation core should be limited to a maximum of 20-25 dwellings, protected by a secure door entry system.
- When a concierge is required, it should be located at each access point. Adequacy of remote control of access points have to be demonstrated by reference to successful schemes, taking into account the social makeup of residents, the physical layout of the development and the technology employed (including cost-in-use).



4.6.9 Elevations

The treatment of the elevations of the new buildings should respect and complement the existing character of the surrounding built form, assist in breaking down the massing and height of the buildings and reflect the relationship between the external and internal spaces.

Elevations should aid legibility and be well detailed, providing visual interest close up and from a distance.

Materials should relate well in appearance and colour to the traditional and characteristic facing materials of the Royal Borough, such as yellow or brown brickwork, or painted render.



- The buildings should be designed to have a dominant vertical rhythm.
- The composition of materials, detailing, setbacks and storey heights, breaking down the elevation into horizontal bands (secondary to the vertical rhythm) should be as follows:
- Semi-basement/sub-basement level.
- Principal elevation formed by the middle storeys, which may include slight vriations in window hierarchy etc, and
- Uppermost floor set back or treated as a flat in the roof.
- The building elevation should be considered as a whole composition, rather than isolated elements.
- Doors, windows and openings should be scaled to reflect a hierarchy of internal spaces.
- Windows, doors and openings should be deeply inset or subtle treatments applied around them to create shadow effects, emphasis and importance.



4.6.10 Design of Homes

The reprovision of the existing homes at Wornington Green not only provides the opportunity to meet predicted housing need and improve the standards of dwelling performance and layout but further creates a need to specify enhancements to dwelling design to take account of the increased density.

For the reasons set out earlier in this document we have defined family homes as having two or more bedrooms. The principle objectives which follow should apply across all tenures to ensure future flexibility and the creation of a balanced sustainable community.

The highly valued and sought-after location of Wornington Green, combined with the strength of the existing community, has resulted in overcrowding and over-occupancy of many of the existing dwellings. Whilst the predicted housing need takes account of the future demand of the existing residents with a loose fit approach, the requirement for large, well proportioned space in habitable rooms will be vital (living/eating/cooking and sleeping areas) in order to support family life and daily activities when dwellings are fully occupied.

The usefulness of habitable rooms is more relevant than overall dwelling size, and space should relate to occupancy, not number of bedrooms. Furthermore, provision should be made for recycling and the washing and drying of clothes where proposed dwellings are remote from the ground.

Kitchens should be separate from the main living space to enable a segregation of recycling and washing/drying. For larger flats or where the kitchen area is part of, or connected to, an open plan living area space should be provided in the form of a utility room.

There should be enough well proportioned space in living/ eating areas to provide hospitality to visitors when all members of the family are at home. Additional space may be required to watch television with friends or for visiting friends to play or to allow for the likelihood that larger households might get more visitors.

Storage space should be provided for a wide variety of household and personal items, dispersed in convenient locations, and of different depths.

A good balance between shared/social spaces should be provided where people can do things together, and private/ individual spaces where people can do things quietly and alone. Bedrooms should be large enough to accommodate a bed, wardrobe and a desk and provide adequate or an appropriate place for teenagers to study and find the privacy they need. Bedrooms should, where possible, be capable of subdivision in the future to provide separate rooms for children of the opposite sex.

Flexibility is required so that spaces can be used to suit different cultural lifestyles and changing needs and circumstances.

Separate kitchen/diners will be desirable for affordable three bedroom homes and larger. The provision of single bedrooms will provide extra flexibility too; the single room could provide a study or playroom or be knocked through to an adjoining room. Space and facilities are required to allow a member of the family to remain at home whilst suffering from temporary illness or incapacity, and to enable the resident to offer hospitality to a visitor in a wheelchair.

The required standard is Lifetime Homes Standard.





- All affordable homes should provided at sizes no smaller than those of existing dwellings.
- All homes should be designed with good accessibility (known as Lifetime Homes Standards).
- 10% of homes are required to be easily adaptable for wheel chair users (20% larger than general needs provision).
- Affordable and private housing should be indistinguishable (tenure-blind).
- All homes should be meet Secured-by-Design Standards.
- Dwellings should be robust and adaptable and cater for the living requirements of different ethnic communities.
- A variety of internal layouts should be provided to cater for the living requirements of different ethnic communities.
- All homes should have direct access to private outdoor space (balconies, back gardens or roof terraces) and communal outdoor space. Balconies to be no less than 3 or 5m² for 1 or 2 bed flats respective.
- The internal layout of the dwelling should maximise the amenity quality.
- Living rooms and external amenity spaces should be orientated to the south as far as possible.

- Single aspect north facing flats should be avoided.
- Internal design of dwellings maximise natural surveillance of the public realm.
- As far as possible, each dwelling should offer 'active' views which look out onto the public areas and 'passive' views which face the private spaces of the dwellings. The active view should be carefully designed to provide both privacy and allow good natural surveillance.
- GLA space recommendations are to be applied, with the addition of separate utility space of at least one square meter per person for all family dwellings which don't have private garden space with external storage.
- 50% of all five person or larger affordable dwellings are to have separate kitchen and dining rooms.
- Single bedrooms should not be smaller than 8.5 square metres for affordable dwellings only.
- Kitchens should be separate from living rooms.
- Robust and high specification materials are to be selected with a view to reducing long-term maintenance costs.

4.7 Sustainability

4.7.1 Policy Context

Resource consumption

PPS1: Delivering Sustainable Communities outlines one of the key aspects of achieving a sustainable community as the 'prudent use of Natural Resources' – ensuring that we use them wisely and efficiently, in a way that respects the needs of future generations. PPS1 outlines the broad aim as maximising the outputs while minimising the consumption of resources. This includes the aim to:

- Reduce the consumption of non-renewable resources including making more efficient use or reuse of existing resources.
- Ensure that the use of resources does not cause serious damage or pollution.
- Promote and encourage the use of renewable resources (for example, by the development of renewable energy).
- Promote resource and energy efficient buildings.

Energy

With regards to energy consumption and efficiency, the Energy White Paper sets out the government's Energy Policy which includes putting the UK on a path to cut its carbon dioxide emissions by some 60% by 2050, with real progress by 2020. In order to achieve this, significant improvements and contributions will need to be made in:

- The development of renewable energy.
- Improvements in energy efficiency, and
- The development of combined heat and power.

The Government has already set a target to generate 10% of UK electricity from renewable energy sources by 2010. The White Paper set out the Government's aspiration to double that figure to 20% by 2020, and suggests that still more renewable energy will be needed beyond that date. This is supported by the London Plan, which currently requires major developments to provide 10% of its energy through on site renewable energy regeneration. However, it should be noted that in September 2006 the Mayor published Further Alterations to the London Plan which proposes an increase in this target to 20%.

New development must also comply with the Code for Sustainable Homes introduced in April 2007.

Waste

PPS10: Sustainable Waste Management aims to protect human health and the environment by producing less waste and by using it as a resource wherever possible. Through more sustainable waste management, this policy aspires to identify ways to break the link between economic growth and the environmental impact of waste including:

- Addressing waste as a resource and looking to disposal as the last option;
- Creating a framework ensuring communities take more responsibility for their own waste;
- Securing the recovery or disposal of waste through methods which don't endanger human health or harm the environment; and
- Ensuring the design and layout of new development supports sustainable waste management.

Pollution

Pollution control is concerned with preventing pollution through the use of measures to prohibit or limit the release of substances to the environment from different sources to the lowest practicable level. It also ensures that ambient air and water quality meet standards that guard against impacts to the environment and human health.



4.8 Environmental Sustainability

Objective

The objective is to create a safe and sustainable community, where the impact on the local and global environment is minimised through the overall design approach and technical specifications.

A strategic holistic strategy must be developed to ensure the proposals meet the requirements of current and forthcoming legislation whilst providing added value in terms of design quality, enhanced economic viability and planning gain.

The project offers a significant opportunity to incorporate the requirements of the Code for Sustainable Homes Levels 5/6* for all new build dwellings as the development will not be complete until after 2016. The developer should demonstrate how the new Wornington Green can achieve carbon neutrality over time through futureproofing and incorporating measures such as XXXX combined heat and power (CCHP) and energy supply through an energy savings company (ESCo) which dovetails with KHTS business strategy. The principles and strategies set out in this document aim to assist the preparation of a masterplan which enhances the local community and addresses the environmental concerns we are facing.



4.8.1 Legislation and Planning Policy Context

In London currently, large scale development which comprise or include the provision of more than 500 dwellings must be referred to the Mayor under the Town and Country Planning (Mayor of London) Order 2000, Statutory Instrument 2000 No. 1493. The proposed scheme will therefore be required to comply with all the essential standards in the Mayor's SPG Sustainable Design and Construction.

Planning Policy Statement: Planning and Climate Change (supplement to PPS 1) is currently under consultation but has been referred to along with emerging alterations to the London Plan as an indication of future changes in policy which will be relevant to this project

All current and anticipated forthcoming RBK&C policy requirements must be met.

The UK Government is currently minded to make the Code for Sustainable Homes mandatory for all new homes in England from April 2008. It is proposed that the required achievement levels will rise up to Level 6* by 2016.

4.8.2 Environmental Standards

Objective

The aim is to meet recognised environmental and design standards to demonstrate the performance of the development in terms of sustainability.

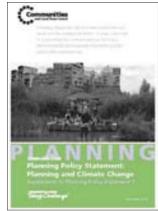
The key objectives include:

- Using recognised industry methods for demonstrating environmental performance.
- Creating an environment in which residents and occupiers feel safe and secure.
- Creating flexible, adaptable homes which can accommodate changing needs of occupants over time and ensure accessibility and independence is possible.

The Code for Sustainable Homes and EcoHomes/BREEAM are recognised methods for demonstrating environmental performance and a commitment to sustainable development. All new build dwellings must be designed to achieve the Code for Sustainable Homes Level 4* (Level 5* from 2010 and Level 6* from 2013), new non-domestic buildings must achieve a BREEAM rating of 'Excellent'. All existing dwellings (current proposal is to only retain 300 Ladbroke Grove) to achieve an EcoHomes Very Good rating as a minimum.

The development should include measures to minimise the risk of crime and maximise security, such as incorporating passive surveillance of streets, strong demarcation between public and private spaces and landscaping and vegetation which do not obstruct views. A Metropolitan Police Architectural Liaison Officer must be consulted and Secured by Design principles considered during the masterplan process.





Inclusive design principles should be incorporated in the scheme and principles of the SPG "Accessible London: Achieving an inclusive environment" adopted. All dwellings must meet Lifetime Homes standards (existing dwellings only if feasible) and 10% of the total number of dwellings to meet wheelchair accessibility standards.

- All new build dwellings to achieve the Code for Sustainable Homes Level 4*, rising to Level 5* from 2010 and Level 6* from 2013.
- All retail and commercial buildings to achieve a BREEAM 'Excellent' rating.
- Any existing retained dwellings to achieve an EcoHomes Very Good rating as a minimum.
- Achieve a Secured by Design award.
- All dwellings (existing dwellings only if feasible) to achieve Lifetime Homes standard and 10% to meet wheelchair accessibility standards.
- The new development should achieve the Buildings for Life, minimum Silver award.

4.8.3 Energy

Objective

Masterplanners and developers should set out to:

- Minimise energy consumption and carbon dioxide emissions.
- Utilise passive design principles in masterplanning and design of buildings.
- Reduce energy demand associated with the occupation of the development.
- Maximise energy contribution from renewable, low carbon energy sources, and
- Reduce energy consumption associated with the construction of the development.

Buildings should be designed to provide good levels of thermal comfort and minimise energy consumption. The measures for achieving this are highlighted below in the order of priority that they should be considered.

- Passive design principles should be used to reduce energy demand for heating, lighting and cooling before other measures are considered. Buildings should be orientated to benefit from passive solar gain and windows designed to provide adequate levels of daylight to reduce the need for artificial lighting. Buildings should be appropriately spaced to prevent overshadowing and allow daylight penetration. Windows should be appropriately sized and incorporate shading to prevent overheating during summer months.
- 2 Energy efficiency measures will also reduce energy consumption associated with the occupation of the development. At masterplanning stage the upgrade of the thermal insulation levels of existing buildings and super insulating new buildings should be considered in relation to the effect this may have on building footprint.
- 3 Energy contributions from renewable and low carbon sources will be required to reduce carbon dioxide emissions to levels required under the Code for Sustainable Homes and in accordance with national and local planning requirements. Low or zero carbon energy systems should be considered for the generation of district heat, coolth and power and a feasibility study will be required to ascertain whether CCHP or CHP is viable. At least 20% of the development total carbon emissions will need to be offset through renewable technologies but this percentage will rise depending on which Level of the Code for Sustainable Homes is to be achieved. A district heat and power network should be considered in relation to serving surrounding sites and developers will be required to demonstrate that they have entered discussions with adjacent owners.



A district heat and power plant should be included in Phase 1 of the development and if biofuel is proposed, adequate storage must be provided and consideration given to access for deliveries and the flue location. It may therefore be appropriate to locate the plant room on a main distribution road such as Wornington Road.

The energy generation strategy must be developed during the masterplan process to ensure adequate space is provided for the plant room(s), the plant room is located in a suitable accessible position and any renewable technologies can be incorporated. With regard to the renewable technologies it will be important to ascertain if, depending on the proposed technology, there is enough roof space to accommodate the technology, the roof is orientated correctly, there is enough wind access or if the ground conditions are suitable.

Car clubs can reduce the number of private vehicles and therefore whilst reducing transport emissions can reduce car parking requirements on a development. The inclusion of a car club should therefore be investigated at an early stage in the design process for Wornington Green.

- The new development should be designed considering passive solar design techniques.
- Energy efficiency measures should provide at least 15% improvement over Part L 2006 for new build and existing.
- At least 20% of the net total CO2 emissions should be offset with renewables (in accordance with the London Plan)
- Carbon emissions related to the new build development should be reduced by a minimum 44% above Building Regulations Part L 2006 (rising in line with the Code for Sustainable Homes Levels.
- District heat and power systems should be incorporated unless this is found to be unfeasible. Negotiations should be held with an ESCo with regard the supply and sale of heat and power on the site.
- Future proofing the development must be adaptable to anticipated uplifts in statutory regulation and the introduction of new technologies when available or existing when economically viable.

4.8.4 Water Management

Objectives

Masterplanners and developers should set out to: Reduce the potable water consumption and minimise the volume of storm water entering the sewer system by reduce impact of proposals on water demand and existing capacity.

- Reducing potable water demand through water recycling.
- Incorporating sustainable drainage systems and reduce run-off from roofs and hard surfaces.

Rainwater or greywater (recycling of bath/shower/basin water) recycling will be required to achieve the requirements of the higher Levels of the Code for Sustainable Homes. Systems could be provided on an individual dwelling or communal basis but where blocks of flats are to be provided communal rainwater storage tanks are likely to be the most cost effective method of achieving this requirement. However, where roof area is limited due to building design, such as a point block, then the volume collected may not be sufficient and individual greywater systems may need to be installed in each dwelling. Space for water recycling systems must be allowed for at masterplan stage.

In addition sustainable urban drainage systems (SUDs) should be incorporated to reduce the amount and intensity of run-off and reduce pollutants in the run-off entering water courses. The SUD strategy must be considered at masterplan stage to ensure any storage facilities such as swales or balancing ponds are included in the layouts.

It is anticipated that Green roofs will be a requirement of the forthcoming London Plan revisions and as such they must be included in the Wornington Green development. Green roofs can form part of SUDs strategy but will also help to reduce the heat island affect and pollution levels whilst absorbing carbon dioxide levels. Allowance must be made in the masterplan proposal for the inclusion of green roofs.

- Internal water consumption to be ≤ 105 litres/person/ day for new dwellings achieving Level 3* of the Code for Sustainable Homes and 80 litres/person/day for those achieving Levels 5* and 6*.
- Internal water consumption to be ≤ 105 litres/person/ day for existing dwellings.
- Rainwater or greywater recycling to be provided for all dwellings and non dwellings.
- A sustainable urban drainage system to ensure that peak run-off rates and annual volumes of run-off post development will be no greater than the previous conditions for the site and to achieve a minimum 50% attenuation of the undeveloped site's surface water runoff at peak times.
- The provision of intensive, extensive or biodiversity green roofs should be considered where flat roofs are being considered.





4.8.5 Materials

Objective

The aim is to reduce material resource consumption, ensure materials are sourced responsibly and life cycle analysis is undertaken.

Sustainable specification and procurement of materials can reduce the impact of the development on the environment. Materials should be chosen for minimal environmental impact over their lifetime, taking into account embodied energy from extracting/manufacturing a product or component, transport costs, durability and fitness for purpose.



- The quantity of materials consumed should be kept to a minimum.
- Materials should be sourced from suitably accredited suppliers, within the local vicinity where possible.
- Consideration of a material or component's life cycle analysis is paramount.
- At the early stage of the design process decisions may be made with regards to structural framing, construction methods and material selection, due consideration must be given to the environmental impact of these decisions.
- The development should meet the requirements listed in the SPG Sustainable Design and Construction.
- No materials rated D or less in the Green Guide for Housing Specification 2007 should be used for dwellings.
- 50% timber to be sourced from an accredited sustainable source and the balance from a known temperate source.
- 25% construction materials by mass used in development to be sourced from a factory/plant, quarry, wharf, railhead or recycling centre within 35 miles of the site, and
- 20% of total volume of materials used to be derived from recycled and reused content in products and materials selected.



4.8.6 Waste & Recycling

Objective

The aim is to minimise the quantity of waste generated during the demolition, construction and occupation phases of the development. To ensure waste materials are reused or recycled as appropriate,

The redevelopment will:

- Reduce the volume of demolition and construction waste which goes to landfill.
- Encourage recycling and reuse of existing materials
- Provide sustainable operational waste management systems.

During the masterplan design process a refuse strategy must be developed for the site. In particular the method of storage and collection of refuse and recycling waste must be considered. Innovative methods such as bulk underground storage, a vacuum collection system or an incineration system to generate energy may be appropriate for Wornington Green but these must be considered in consultation with RBK&C Waste Management Department.

Consideration should be given to the reuse of demolition materials on site to avoid sending waste to landfill and consuming new materials. The dismantling of existing buildings will take more time than the usual demolition process so allowance must be made in the programme.

4.8.7 Pollution

Objective

The aim is to minimise noise and dust pollution from the railway along the north-east boundary of the site and measures should be taken to mitigate pollution during construction and occupation of the development by:

- Minimising the existing and adverse impacts of noise on, from, within or in the vicinity of development proposals.
- Minimising dust pollution from the railway.

When considering the design of the masterplan, the railway must be considered carefully in terms of its impact on visual outlook, noise and dust pollution. Dwellings should be located to mitigate these impacts. The orientation and aspect of dwellings and room location will assist in achieving satisfactory solutions to these aims. Construction methods will help to reduce noise penetration through the building fabric. Landscape including green roofs can reduce airborne pollutants and dust levels and as such the location should be considered in relation to the railway.

Key Principles

 Develop the design to reduce airborne noise and dust levels within the development through the utilisation of control measures.



4.8.8 Future Proofing

Objective

The aim to for all accommodation to be able to adapt to potential future changes in weather patterns, occupants requirements and lifestyles and to accommodate new technologies. To achieve this masterplanners and developers will need to:

- Design to consider changes in temperature and weather patterns (Climate Change).
- Ensure accommodation is flexible and adaptable.
- Incorporate measures to accommodate future technology.

At the masterplan stage it will be important to consider the microclimate to ensure heat can be dissipated from the urban mass of Wornington by local winds. Design should consider the impact of higher temperatures and increased rainfall; these may include roof overhangs for shading and rainwater attenuation systems.

Key Principles

- Dwellings should be designed to be flexible to allow for adaption of the dwelling as occupants age or suffer from illness. Services routes around the site should be easily accessible and have capacity for expansion.
- Renewable energy systems are advancing and buildings should be designed to allow for retrofitting as they become more economically feasible and new technologies are introduced.
- Non-fossil fuel powered vehicles are becoming more popular such as electric cars. Provision of charging points should therefore be considered.



Development work for the Carbon Challenge competition

This report has aimed to set out the regeneration opportunities, site constraints and design aspirations for the development of a new and sustainable Wornington Green. The raft of standards and developing criteria from The Housing Corporation, CABE, and the GLA will ensure the provision of high quality homes however the real challenge will lie in the success of bedding the new development into its immediate environment and the wider Golborne Ward and in meeting the wider socio-economic objectives that are so vital to the success of this project.

High density

High density brings a number of specific challenges and in order to succeed it is essential that criteria to meet these challenges are identified early and an integrated approach adopted in deisgning and evaluating the scheme. We recommend East Thames'Toolkit for Delivering Successful Higher-Density Housing as a particularly useful document in establishing and evaluating high-density criteria.

Involving residents

As stated throughout this document the importance of continued open and honest discussions with the community is of paramount importance for this project. The mature and informed community and buoyant local voluntary sector offer an unprecedented opportunity for the a successful future for Wornington Green. However the challenge will lie in keeping them on board, whilst the majority are in favour of substantial improvements and partial redevelopment to the existing estate, many are apprehensive about complete demolition and redevelopment. Residents and local stakeholders will need to be reassured that the regeneration process will be in safe hands and that improvements will be sustained through long-term high quality responsive management.

Housing and Management Issues

Overcrowding and the lack of housing choice for existing tenants are two of the significant drivers for the regeneration of Wornington Green. Redevelopment will offer existing tenants new homes to meet their requirements and offers the potential to bring in a range of intermediate housing options to encourage shared and outright ownership for those tenants who aspire to own their own homes. One of the core regeneration aims is for full tenure integration and tenure "blindness", however vertical separation will be considered to allow independent access cores and to keep service charges down for affordable housing tenants. However the increased density and mixed tenure development will bring management challenges and service charge issues that will need to be strategically addressed throughout masterplanning stage.

Management issues will need to be inextricably linked with the design process, for example a scheme of this scale and density will require caretakers and concierge systems offering both a local presence and ensuring easy access to fast and responsive local management. Locally based neighbourhood management agreements or mechanisms for involving residents in a management company will contribute to a successful management approach.

Community Investment

A programme of community investment should be developed in partnership with the local community stakeholders to support the economic and social regeneration of the area. The introduction of increased retail provision brings with it opportunities for community investment through the potential retention of assets within the community, through the formation of a Development Trust. There is already a successful model for this in the nearby Westway Development Trust.

The replacement of the Venture Centre and the land it occupies could well hold one of the keys to this development. Successful negotiation with both the Venture Centre Board and RBK&C the freeholders regarding the relocation and rebuilding of these facilities could result in "free land" allowing a first phase of the development free of decanting tie-in.

Good Luck!

Responses and clarifications to queries about the Brief for Change: 16 November 2007

Item 4.4 - Landscape

There is a mis-match between KHT's own client landscaping preferences and the landscape proposals. Given the density here open ground is likely to be shaded, especially the courtyards, and this limits what can be grown – grass is out for a start! It is usually better value to put in trees that really work, than to clutter up the place with straggling shrub beds and hedges. 70% soft/30% hard may not be realistic. The ecology targets, especially bulbs and wildflower grassland may not work in this context!

- The landscape proposals at planning stage will be subject to scrutiny by the GLA.
- The light penetration to courtyards will be subject to BRE
 209 guidance, which is mentioned in the text.
- The main questions will be: what are the courtyards to be used for, and how will they work, and these will be subject to detailed discussion and consultation in due course.
- There is a shade tolerant grass mix available, if required.
- Soft landscape refers to shrubs and trees of course, as well as grass.

Item 4.4.4 - Formal Play Areas

Formal play areas for under 5s within 150m of all new family homes. This is a dangerous target because we are likely to end up with patches of squidgy tarmac and a couple of springy dogs, surrounded by hooped railings, all with quite onerous maintenance regimes. I think you will need to be a bit more imaginative about integrated children's play.

- This text refers to the 6-acre standard for play provision, and it may be possible for some of the courtyards to provide play areas.
- Current thinking on play (Tim Gill for the Mayor of London) suggests an emphasis on playability rather than equipment, so you'll be glad to hear that we do not envisage lots of primary-coloured nodding donkeys!
- In recent schemes we have specified more natural things like boulders, stepping stones, timber walkways, and the like, which prompt children to use their imaginations, but are available as seating or hang-out space for other people. The boundary is then blurred between play and relaxation.
- The images which accompany the text provide guidance on the aspirations

Item 4.4.4 - Different Cultures Reflected in Play Facilities

'The different cultures within the surrounding community should be reflected in the design and provision of play facilities' – are we proposing segregated play areas for boys and girls so that girls are not driven to the margins by boys playing football?

- This is recognition that Wornington Green has an ethnically diverse population, which should be consulted through the design process, to ensure that no group is discriminated against.
- Segregated play is not recommended, but that point may have to be addressed in some other way.

Item 4.5.4 - Dwelling Areas

Dwelling areas – some units are a bit small – we now allow 91-101 for a 3B6P. If we take some units above the HQI area band it improves our Value For Grant figure.

- In the Building for Change text, the 3b6p is smaller than the HQI range given, however, it is a reasonable area for a single storey flat.
- We would expect 2 or 3 storey maisonettes to be around 97m2 and 102.5 respectively.
- However, it is good practice to provide more space for larger flats in order to compensate for the lack of immediate access to open space (other than a balcony).
- Amending the area to 92m2, would give an overall 123m2 of additional build area.

Item 4.6.5 - Dwelling Frontages

KHT had to reject PRPs narrow frontage houses/maisonettes at South Acton because of problems meeting Lifetime Homes. I

- No frontage width is suggested, but KHT's concerns are noted.
- PRP's testing diagram demonstrates that it was possible to achieve LTH within this format.

Item 4.6.5 - Perimeter Blocks

It is quite difficult to meet the ratio of flats:lifts for an acceptable service charge if the block is too ribbon like. CHG had tremendous difficulty with South Acton and had some considerable redesign at quite a late stage because of this. Our brief asks for 20 flats per lift and CCHA is starting to demand 25, which is at the top end of what PRP say is acceptable. When faced with justifying service charges our clients are looking to maximize the number of units per core, and very reluctant to consider caretakers or concierges so we could end up with the worst of both worlds here.

- The testing study demonstrated how this works, with no lifts in affordable housing, rising to four storeys maximum.
- Lifts will be provided for private cores, rising above 4 storeys, where service charges are expected and acceptable.

Item 4.6.10 - 10% Wheelchair Standard

10% wheelchair standards – recent experience is that 'easily adaptable for wheelchair users' is getting translated into something rather more onerous by enthusiastic Access Officers.

- These have been incorporated into the build area, at 15-20% above the size of general needs homes.
- These homes can be equipped as required for the individual resident, who will be allocated before the home is complete.

Item 4.6.10 - Kitchens Separate from Living Rooms

Kitchens should be separate from Living Rooms, but these is rarely enough external wall to manage it so we should be careful what we 'promise' here.

- Like all of the text, this is an important aspiration.
- It is possible to have a kitchen without a window if absolutely necessary, as it is not a habitable room, but the overarching principle will be to provide windows in kitchens where possible.

Item 4.8 - Code for Sustainable Homes

Code for Sustainable Homes 5/6 – we know that getting to Level 3 is expensive, and that Level 4 requires an entirely new approach to building and procurement. Mentioning Level 5/6 is madness on a complex scheme like this! The whole energy section looks a bit outdated and doesn't reflect the lessons learnt on South Acton, including the use of the term 'District Heating'. Nowadays this means something rather larger than suggested here – 'communal heating and power' is a better term.

- Regeneration Objectives and Principles proposes, "All new build dwellings to achieve the Code for Sustainable Homes (CSH) Level 4*, rising to Level 5* from 2010 and Level 6* from 2013".
- At the time of writing the report it was anticipated that Alterations to the London Plan would include a requirement to achieve a minimum CSH of Level 4*. This was therefore considered applicable to the first phase and the higher Levels set to correspond with the programme.
- Having reviewed the Draft Further Alterations to the London Plan – Examination in Public 18 June - 10 July 2007, it recommends the following text is added to Policy 4A.2i:
 - "Promote minimum energy efficiency standards for new homes equivalent as a minimum to Level 3 of the Code for Sustainable Homes by 2010, Level 4 by 2013 and Level 6 "zero carbon" by 2016."
 - We must assume that this will be included in the further set of Alterations, although no date is available for when this might be.
- Housing Corporation funding requires CSH Level 3* for the 2008-2010 bid and this is likely to rise to Level 4* for the next round. It should be noted that aiming for Code Level 4* initially might increase your chances of gaining Housing Corporation funding, and we should also be prepared for the possibility that the planning requirement may change.
- "District heat and power" refers to a system which serves the whole development, whereas communal heat and power we would generally consider to be per block.
- The principles suggested in the Regeneration Objectives and Principles are in line with current GLA requirements.
- To comply with the London Plan we will have to demonstrate that heating systems have been selected in accordance with the following order of preference:
 - Connection to existing CCHP (/CHP distribution networks.
 - Site-wide CCHP/CHP powered by renewable energy.
 - Gas fire CCHP/CHP or hydrogen fuel cells, both accompanied by renewables.
 - Communal heating and cooling powered by renewable energy.
 - Gas fired communal heating and cooling.

LG: PRP: 16.11.07



