

Royal Borough of Kensington and Chelsea
Infrastructure Delivery Plan
January 2010

Local Infrastructure Delivery Plan

January 2010

LDF

Building on success

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ABBREVIATIONS

AL Adult Learning
AMP Asset Management Plan
BSF Building Schools for the Future
BT British Telecommunications
CAZ Central Activities Zone
CCHP Combined Cooling Heat and Power
CIF Capital Investment Fund
CIL Community Infrastructure Levy
CLF Central London Forward
CLIS Central London Infrastructure Study
CHP Combined Heat and Power
DCLG Department for Communities and Local Government
DCSF Department for Children, Schools and Families
DfT Department for Transport
DMAG Data Management and Analysis Group
EA Environment Agency
EfW Energy from Waste
ESCo Energy Services Company
FE Further Education
FTE Full Time Equivalent
GP General Practice
GLA Greater London Authority
HE Higher Education
HEFCE Higher Education Funding Council for England
HEPI Higher Education Policy Institute
HESA Higher Education Statistics Agency
HUDU Healthy Urban Development Unit
IDP Infrastructure Delivery Plan
LATS Landfill Allowance Trading Scheme
LB London Borough
LBI London Bus Initiative
LDA London Development Agency
LIFT Local Improvement Foundation Trust- 25 year partnership between the NHS and a private company or consortium to develop facilities
LDF Local Development Framework
LPA London Port Authority
LSC Learning and Skills Council
LUL London Underground Ltd
m million
Ml/d million litres per day
MPA Metropolitan Police Authority
MRF Materials Recycling Facility
MSW Municipal Solid Waste
MUSCo Multiple Utilities Services Company
NFCDD National Flood and Coastal Defence Database
NHM Natural History Museum
NHS National Health Service

NR National Rail
ODPM Office of Deputy Prime Minister
ONS Office for National Statistics
PCT Primary Care Trust
PFI Private Finance Initiative
PPP's Public Private Partnerships
PPS Planning Policy Statement
PCSO Police Community Support Officer
PV Photovoltaic
SFRA Strategic Flood Risk assessment
SHA Strategic Health Authority
SPG Supplementary Planning Guidance
SSDP Strategic Service Delivery Plan
SSSS Sub-Regional Strategy Support Studies
SUDS Sustainable Urban Drainage Systems
TfL Transport for London
UKCMRI UK Centre for Medical Research and Innovation

Executive Summary

The Infrastructure Delivery Plan (IDP) is part of the evidence base informing the preparation of spatial policy in the Local Development Framework (LDF). The LDF will play an important role in delivering the vision set out in the Sustainable Community Strategy for Kensington and Chelsea.

The purpose of this report is to provide an infrastructure capacity assessment for the Borough. This has included working in partnership with physical, social and green infrastructure providers to establish what infrastructure provision there is in the Borough, and identifying any gaps or capacity issues within this existing provision.

In order to ensure that the study was robust the methodology was developed using guidance documents from Communities and Local Government and the Planning Advisory Service (PAS). The combination of research techniques applied included consultation in the form of discussions, individual meetings and telephone interviews, analysis of statistical data, and a review of existing and emerging studies.

The scope of facilities that have been investigated as part of this infrastructure capacity assessment includes the following: Transport; Utilities & Waste; Social Infrastructure; Environmental and Green Infrastructure; and Culture and Leisure. This is to ensure that the IDP embraces all matters necessary for the achievement of LDF policies, proposals and aspirations.

From this research it can be shown that the following are key infrastructure requirements within the Borough:

Transport

- Provision of a Cross Rail Station, and in the longer term, a station on Kings Road, with the safeguarding of this route.
- Improvements to pedestrian and cycle links, removing barriers to movement and unravelling the Earls Court One Way System.
- Improvements to public transport, particularly north-to-south movement including Hammersmith & City line upgrading, Improvements at South Kensington Tube.

Social Infrastructure

- A new secondary school in the north of the Borough, and links to the BSF and PCP programmes.
- GP Surgeries and health requirements.
- Provision of community facilities.

Environmental and Green Infrastructure

- Identification of parks and open space requirements including at Lots Road/World's End.

- Create new outdoor spaces where needed, and new green space through gardens at roof level.
- Pedestrian improvements, streetscape improvements (various locations).
- Energy provision from district heat sources.

Culture and Leisure

- A Sports Centre provided in the north of the borough.
- Affordable shops, cultural provision, new public art in development.
- New town centres in the north of the borough.

Utilities

- Counters Creek replacement working with Thames Water.
- Gas works – replacement gas holders with alternative pressure technology (National Grid).
- Electricity tunnel – National Grid infrastructure.

The **Infrastructure Delivery Plan** provides an overview of the strategic actions required, who is responsible for delivering them, a broad indication of phasing, cost and funding mechanisms. The list of projects included within the Infrastructure Delivery Plan is not intended to be exhaustive, as the process of implementation will constantly be responding to local circumstances and utilising new avenues and drivers to prioritise spend over the life of the Core Strategy

It will involve an assessment of what infrastructure will be required to support development within the Borough over the Plan period. This will require on-going joint working with key partners including external organisations, as the implementation of solutions often falls to an agency other than the local planning authority.

The IDP will aid all parties to identify and prioritise infrastructure provision as part of an integrated approach to planning and infrastructure development. This will ensure services can match demand and that growth is sustainable. The framework to be produced will give a clear steer on who is responsible for implementing policies and proposals, by when and the resources that will be required. This approach will give greater confidence in the deliverability of the LDF.

1. Setting the Context

1.1. The Royal Borough of Kensington and Chelsea is one of the smaller London boroughs in terms of area and population, but because of its history and position close to the centre of London it is the location for a wide variety of activities. The Borough covers an area of five square miles and extends from Chelsea Embankment in the south, through Kensington, Notting Hill and Ladbrooke Grove up to Kensal Green in the north. It is bounded to the east by Kensington Gardens and to the west by the West London Railway Line.

1.2. The Sustainable Community Strategy sets out a vision for Kensington and Chelsea up to 2018. 'The Future of our Community 2008-2018' involves the Council, the police, the fire service, the Primary Care Trust, local businesses and the many voluntary and community organisations in the borough have been working hard to improve things for the people who live in, work in, or visit the Royal Borough.

The strategy is based upon a series of extensive consultation exercises and a review by partner organisations of their current policies and priorities. The new strategy retains the format of the 2005 version and is organised around the following eight themes:

- Environment and Transport
- Culture, Arts and Leisure
- Safer Communities
- Health and Social Care
- Homes and Housing
- Community, Equality and Inclusivity
- Achieving Potential
- Work and Business

Within each thematic chapter, there is an overall goal and a description of the position in the Royal Borough relevant to the theme; and a set of specific aims and objectives.

1.3 The Community Strategy describes what it feels like to live in, work in or visit the Royal Borough. This is determined by the many organisations represented in the Partnership, and by the hundreds of thousands of residents, workers and visitors in the borough. The Kensington and Chelsea Partnership (KCP) exists to understand the needs and opportunities in the local area and translate these into clear ambitions, identifying how they will be delivered. This requires consensus and compromise on issues of competing views and interests. The community strategy is part of a suite of documents, which contains the following:

- The Future of Our Community – Community Strategy: a set of long-term ambitions; and some specific aims and objectives that will help achieve these ambitions.

- A Picture of Our Community: some facts and figures which support the ambitions, aims and objectives captured in the community strategy.
 - Improving Our Community: identification of which partner/s who will take the lead in achieving these and how; a set of measures to show progress; and a public report clearly showing what has been achieved.
- 1.4 The Local Development Framework (LDF) will play an important role in achieving this vision. The Council started work on its LDF following the adoption of the Unitary Development Plan, and on enactment of the Planning & Compulsory Purchase Act 2004. This IDP will form part of the evidence base, which will inform the LDF preparation process.
- 1.5 The London Plan including Further Alterations (2008) provides a framework for development and investment in the City over the next 15 - 20 years. It forms part of the statutory development plan for every local authority in London.
- 1.6 The London Plan provides a clear indication of the growth of the City and for the Borough to 2021. This enables the Kensington and Chelsea Core Strategy document to make assumptions beyond this date.
- 1.7 The Core Strategy sets out the key elements of the planning framework for the area to 2028. It should outline the long term spatial vision for the area, and the broad locations for delivering the housing and other strategic development needs such as employment, retail, leisure, community, essential public service and transport development.
- 1.8 The vision for Kensington and Chelsea over the next 20 years is to remain the best place to live in London. To do this, significant change will be needed – principally in the north – to raise the quality of life to the best in London. In those parts of the borough which currently enjoy a high quality of life, there must be careful incremental improvement to ensure the position is maintained. Seven strategic objectives have been identified to deliver its vision:
- To keep life local
 - To foster vitality
 - To offer better travel choices
 - To maintain and extend our quality public realm
 - To renew our legacy
 - To achieve a diversity of housing; and
 - To respect environmental limits
- 1.9 In line with this, the LDF will target much of the new growth within North Kensington. These areas will be a focus for economic and residential development and regeneration. These are areas of significantly lower accessibility, as well as difficulty in moving north-south in the borough, and thus a greater dependency on car use, although fewer than 50% of households in the borough have a car. It is necessary to maintain the top

quality built environment we have inherited, both in terms of the buildings and the public realm. The relative isolation of some of the post-war housing estates due to disconnected layouts and poor legibility.

- 1.10 As a result of this, it is likely that new development will be located within these areas. An increase in the number of people living and working in the same space could potentially result in increased stress on the existing services and infrastructure.

Kensington and Chelsea in Outline

- 1.11 With a population estimated at 178,600, Kensington and Chelsea is the most densely populated borough in the country, packed into just under five square miles of land. It is primarily residential but is an internationally recognised shopping destination, hosts world renowned arts and cultural facilities and events, and boasts some of London's most visited parks and outdoor spaces. It is also a borough of extremes with some of the wealthiest neighbourhoods in the country as well as some of the most deprived. Statistics on deprivation show that North Kensington and parts of Earl's Court and South Chelsea face complex combinations of problems such as low incomes, relatively high unemployment and poor health.

North Kensington

- 1.12 The highest levels of deprivation are found in North Kensington, highlighting the need to focus on regenerating this area. In the past central government has made extra resources available to do this but changes in the way this funding is allocated mean that the borough no longer qualifies for this help. This means that the Kensington and Chelsea Partnership plays an important role in working to direct mainstream resources – the money that the Council, the police, the fire service, NHS Kensington & Chelsea and other partners spend on a day to day basis – towards co-ordinated and targeted initiatives that address the causes and consequences of deprivation in North Kensington. In order to meet the KCP Community Strategy objectives the Partnership will identify some performance targets which set higher levels of improvement for North Kensington

Population

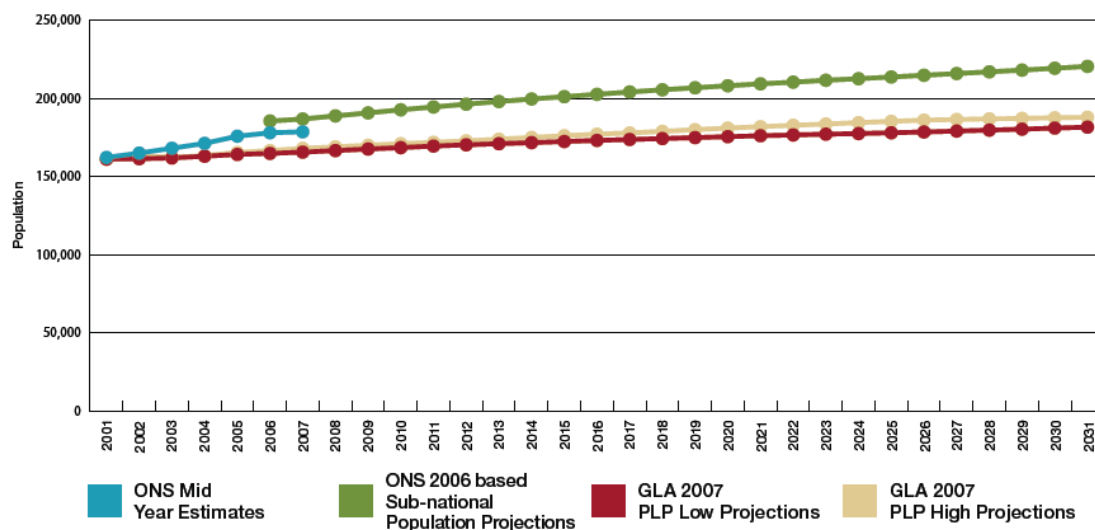
- 1.13 The IDP uses up-to-date information from '*A Picture of Our Community – Facts and Figures about the Royal Borough of Kensington and Chelsea 2008*'. This presents a range of the latest and key information, statistical analysis and indicators to provide a comprehensive picture of the Royal Borough and the people who live in, work in and visit the borough.
- 1.14 The current population estimates and projections that are available for Kensington and Chelsea, from recent ONS MYE puts the borough's population at 178,600 in 2007.
- 1.15 For the corresponding year from the GLA estimates the population at 165,600 in the PLP Low projections and 168,000 in the PLP High projections. ONS estimates and projections are not completely in line with each other but current projections suggest a population of 220,500 people in

2031. The GLA PLP Low figures suggest projections of 181,600 people in 2031 and the PLP High projections suggest 187,900. The ONS projections do not take housing capacity into account and are therefore higher than the GLA. Population change is due to natural change (births and deaths) and migration.

Age breakdown

1.16 Figure 1.1 illustrates the age profile of Kensington and Chelsea residents by the ONS and GLA estimates provided in five year age bandings.

ONS and GLA population estimates and projections for Kensington and Chelsea 2001 - 2031



Figures rounded to the nearest hundred

Source: ONS Mid Year Estimates 2001 - 2006 and 2006 based Sub-national Population Projections, www.statistics.gov.uk
GLA 2007 PLP High and Low Projections, www.london.gov.uk

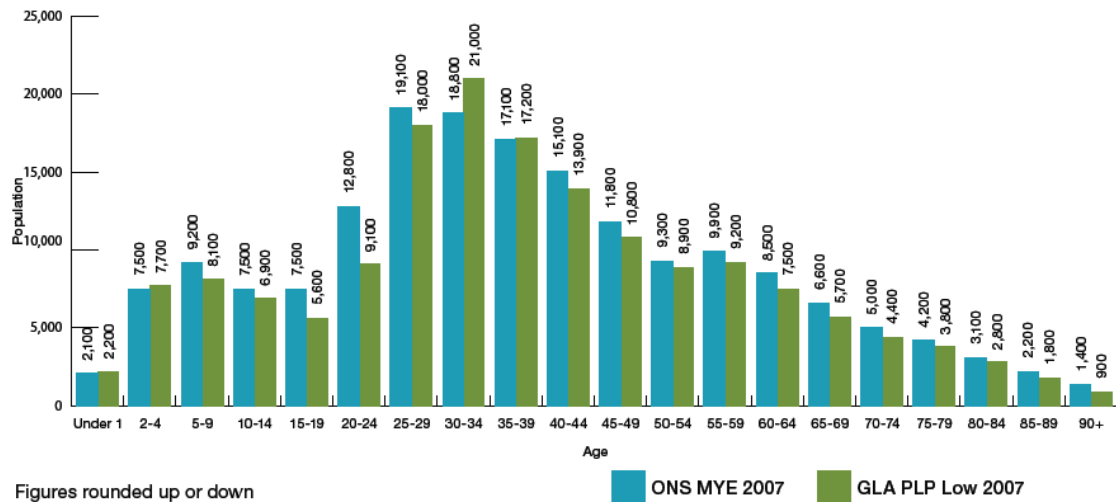
Updated: ONS Mid Year Estimates and GLA PLP Projections - annually. ONS Sub-national Population Projections - every two years

1.17 Data from the 2001 Census illustrated that residents of different ages reside in different parts of the borough. There are higher concentrations of under 16 year olds in the north of the borough and higher concentrations of the working age population in the wards of Queen's Gate and Earl's Court for example. The older population are more likely to be living in the far south of the borough.

Age profile over time

1.18 Figure 1.2 presents the most recent GLA PLP Low projections by five year age bandings, for five and 10 years into the future from 2007. Proportionately, when comparing the data for 2012 and 2017 the GLA estimates higher proportions of people aged 25-39 in 2012 and higher proportions of people aged 40-59 in 2017.

ONS and GLA population estimates by age (five year age bandings) for Kensington and Chelsea 2007



Figures rounded up or down
Source: ONS Mid Year Estimates 2007, www.statistics.gov.uk
GLA 2007 PLP Low Projections, www.london.gov.uk
Updated: Annually

Ethnicity

1.19 Change in ethnicity of the Kensington and Chelsea population since the 2001 Census is estimated to be minimal. See pages 46 and 47 of the 2005 publication of A Picture of Our Community for ethnicity comparisons against London and England and maps of the main ethnic groups across LSOAs in Kensington and Chelsea, illustrating that people of different ethnicities live in different areas of the borough.

Working age population

1.20 The ONS estimates the working age (16-64) population of Kensington and Chelsea to be 123,700 at mid 2007, with around 63,760 working age males and 59,920 working age females. The total population is estimated at 178,600. The proportion of the Royal Borough’s population that is of working age for males and females is higher than that of London and England.

1.21 The working age population can be described in terms of their economic activity status. Table 1.3 shows recent economic activity/ inactivity figures for the working age population of Kensington and Chelsea, London and England.

**Economic activity and inactivity of the working age population in Kensington and Chelsea, London and England
January 2007 - December 2007**

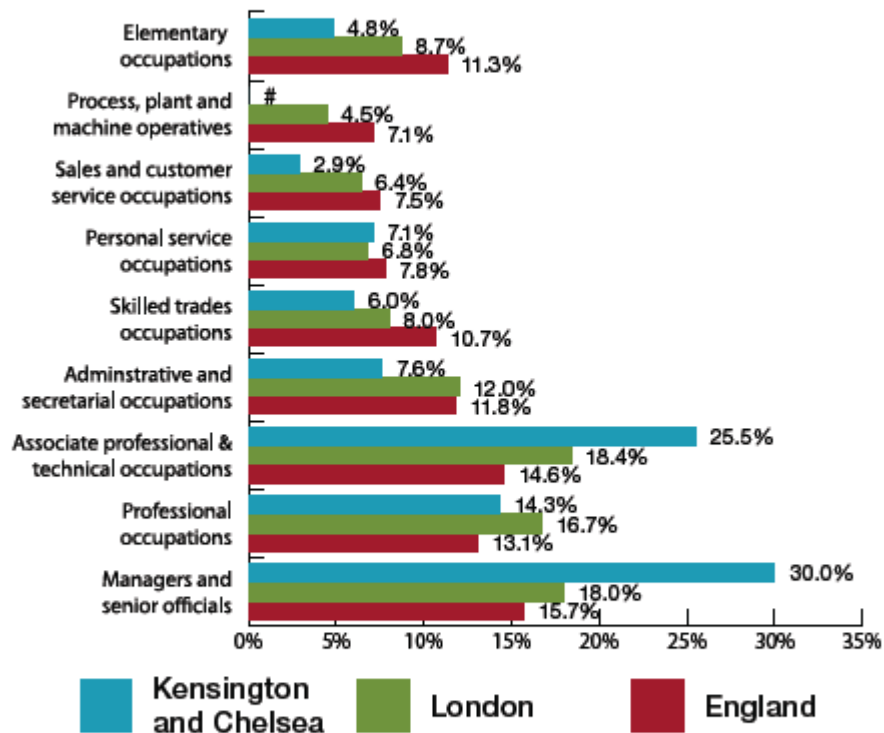
All people	K&C	London	England
Economically active*	70.6%	75.0%	78.6%
In employment*	67.1%	69.8%	74.4%
Employees*	53.0%	58.5%	64.6%
Self employed*	13.9%	10.9%	9.5%
Unemployed**	5.5%	6.8%	5.4%
Economically inactive*	29.4%	25.0%	21.4%
Wanting a job***	6.1%	6.9%	5.3%
Not wanting a job***	23.3%	18.1%	16.1%

- 1.22 The economic activity and employment rates of working age residents of the Royal Borough are lower than rates for London and England, however the proportion of the population that are self employed is higher. The proportions of people who are economically active but unemployed by this measurement is lower than London but generally higher than England, although accurate data for males is not available.

Employment

- 1.23 According to the latest available figures, there are 109,051 employees working in Kensington and Chelsea at 13,118 workplaces. Figure 1.4 illustrates employment by sector with comparisons for London and England.

Employment by occupation for Kensington and Chelsea, London and England January 2007 - December 2007



Figures rounded up or down

Sample size too small for reliable estimate

Source: ONS Annual Population Survey, sourced from Nomis

www.nomisweb.co.uk

Updated: Quarterly

- 1.24 The largest areas of employment in the Royal Borough, as at 2008, are 'real estate, renting and business activities' which provides 21.3 per cent of local jobs, 'wholesale and retail' (20.9 per cent), 'hotels and restaurants' (16.5 per cent) and 'health and social work' (11.5 per cent).

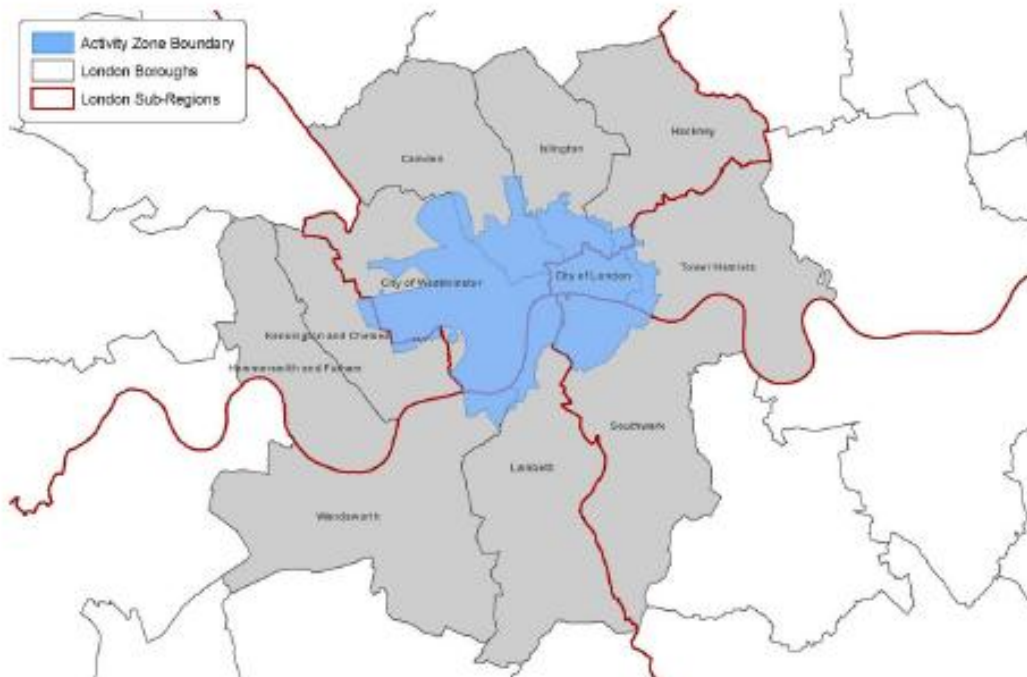
2. Study Outline

- 2.1 There is a new emphasis on the links between plan-making and infrastructure provision. Serious consideration needs to be given to the issues relating to the implementation of the LDF and, in particular, to the means by which the required levels of infrastructure will be delivered, by whom and to what timescales.
- 2.2 An effective LDF demands the integration of infrastructure and development within plan-making. Places are a mix of activities and systems which require the provision of appropriate infrastructure. In other words, to make places work, there must be a means by which a Plan is capable of being delivered. Therefore the LDF should be based on sound infrastructure delivery planning.
- 2.3 Since 2004, the emphasis on the delivery of spatial plans and, in particular, the links between plans and infrastructure provision, has been significantly strengthened.
- 2.4 Revised Planning Policy Statement 12 (June 2008) clearly states that: *'The core strategy should be supported by evidence of what physical, social and green infrastructure is needed to enable the amount of development proposed for the area, taking account of its type and distributions. This evidence should cover who will provide the infrastructure and when it will be provided. The core strategy should draw on and in parallel influence any strategies and investment plans of the local authority and other organisations.'* (p.8).

Purpose of the Study

- 2.5 There are 3 main aims of the study, these are:
- To identify the existing infrastructure capacity in the Borough;
 - To identify infrastructure requirements to support future development in the Borough over the Plan period;
 - To inform the future policy of infrastructure providers, to ensure services can match demand and that growth is sustainable.
- 2.6 The study is a part of the evidence base that has informed the preparation of spatial policy in the LDF. It will also assist the Council and other service providers to identify and prioritise infrastructure provision as part of an integrated approach to planning and infrastructure development.

The Central London Infrastructure Study (CLIS)



2.7 In October 2008 Central London Forward¹ commissioned URS Consultants to assess the infrastructure needs of Central London for the next 15-20 years, to coincide with the time horizon of the LDF Core Strategies in a manner that enables boroughs to reflect these needs in their individual LDFs. The RBKC IDP should be read in conjunction with this document, although the focus of this IDP is more 'local' i.e. infrastructure requirements arising at a borough level.

2.8 In summary the CLIS covered:

- Basic utilities infrastructure including: water and sewerage; flood defences; power and telecommunications; waste management facilities;
- Transport infrastructure - in particular proposals for mainline rail termini and major road congestion hotspots; and
- Social infrastructure including that which is provided on a London wide or sub regional level such as adult learning and further education colleges;

¹ City of London; City of Westminster; London Borough of Camden; London Borough of Islington; London Borough of Southwark; and Royal Borough of Kensington and Chelsea.

higher education; primary and secondary health care facilities; and emergency services.

- 2.9 It follows the advice in Planning Policy Statement (PPS) 12: 'Local Spatial Planning' which requires planning authorities to place infrastructure planning at the heart of the planning process. PPS 12 states that the Core Strategy should be supported by evidence of physical and social infrastructure requirements and advocates a strategic, collaborative and comprehensive approach to the forward planning of infrastructure.
- 2.10 In order to understand the future requirements for infrastructure provision it is essential to assess the extent of forecasted development growth. The CLIS assessment covers impact of both residential and commercial uses on the forecasted demand for infrastructure. Demand takes account of both London Plan projections and individual authority forecasts. An overview of the findings from the CLIS is set out in Section 4.

Infrastructure Priorities

- 2.11 Appropriate corresponding data is not always available from many providers. The exception to this is the data on demand for gas; the figures and assumptions used were verified by National Grid. Nonetheless the estimates of quantum and cost provide an understanding of the scale and context of future growth, and a starting point for further analysis and consultation with partners.
- 2.12 The CLIS comments on infrastructure priorities below, building upon detailed schemes. Some key conclusions can be drawn relating to the magnitude of demand, the scale of investment required and the implications for the activities of Central London authorities and other agencies.

Transport

- 2.13 Transport is fundamental not only to the sustainable delivery of new homes and jobs in Central London, but to improve accessibility of residents to existing and emerging employment opportunities, including residents in deprived communities. The assessment highlighted that Central London has an infrastructure investment programme to 2018, including Thameslink, the East London Line Extension and Crossrail, which adds significant additional public transport capacity. However several residual problems remain and post-2018 further capacity increases will be required and at present, no firm proposals exist to address these. Initiatives which encourage higher levels of walking and cycling in central London, including public realm improvements, are cost effective and relatively simple measure which have the potential to divert pressure away from public transport while generating wider social benefits.

Energy and other utilities

- 2.14 There was a general lack of detailed information on utilities but the assessment identified potential future demand deficits relating to electricity and potable water.

- 2.15 These infrastructures can perhaps more than any others be described as 'showstoppers' in terms of their fundamental importance to the delivery of growth, as well as costs. Utilities companies largely operate in a reactive way when schemes come forward, and potential cost and efficiency benefits could be derived from a more strategic approach. This could include the approach to funding; movement towards CIL and the introduction of forward-funding mechanisms such as the Regional Infrastructure Funds being introduced by a number of Regional Development Agencies could play a role here.
- 2.16 The CLIS highlights the potential role of renewable energy sources and combined heat and power to meet the future demand for energy. While a series of policy initiatives are now in place to promote this agenda, giving priority to developing this infrastructure could help yield major positive benefits

Other physical infrastructure

- 2.17 A short term requirement for upgrades to flood defences in three of the six Central London authorities was identified, as well as investment in sewage treatment works and reduced sewer flooding. Other agencies are taking the longer term agenda for provision of adequate flood and drainage infrastructure forward; the scale and costs of these schemes is significant, reflecting the magnitude of potential impacts should adequate mitigation not take place.
- 2.18 The requirements around waste management emphasises the need for a strategic approach to infrastructure provision. To a greater degree than some other infrastructures it is the Central London authorities that will directly experience the disbenefits of failing to devise and implement a successful forward strategy, due to increasing landfill charges.

Social Infrastructure

- 2.19 While in general the scale of required investment is smaller for social infrastructure, a potential deficit was identified in relation to FE and Adult Learning. FE and skills training is an important mechanism to ensure local people benefit from planned growth and for this reason should be considered a high priority.
- 2.20 There was a general lack of data relating to the social infrastructure areas. However it is clear that for a number of infrastructures, including primary healthcare, HE and police, there are considerable backlog costs associated with getting the existing estate up to a suitable standard; costs for expansion and improvement of services are further to these existing investment requirements.

3. Methodology

3.1. The principal outcome for this stage in the process of preparing the IDP has been the identification of the existing provision and capacity of infrastructure in the Borough by service.

3.2 In order to ensure that the study was robust, the methodology was developed using the following guidance documents from Communities and Local Government and the Planning Advisory Service:

- Planning Policy Statement 12: Local Spatial Planning (June 2008);
- Infrastructure Delivery – Spatial Plans in Practice: Supporting the reform of local planning (June 2008);
- Implementing your local development framework: the integration of infrastructure and development in plan-making (April 2008).

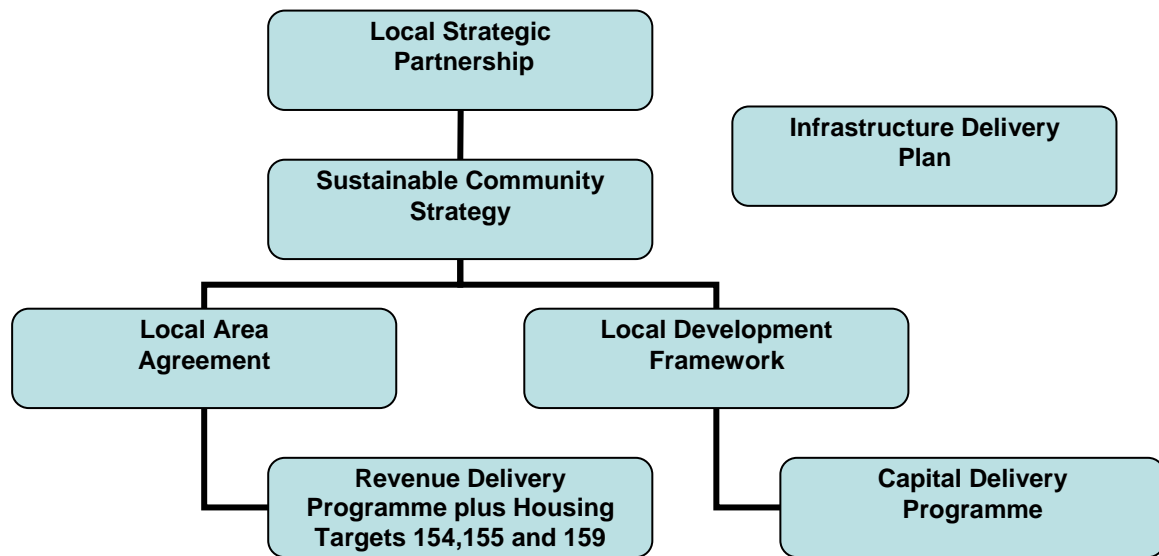
3.3. The methodology will incorporate an element of contingency planning to show how objectives will be achieved under different scenarios (what if), to take account of circumstances where provision is uncertain.

3.4. In terms of consultation, early and continuous engagement with key partners and infrastructure providers and developers is integral to this study. Joint ownership of the proposals set out in the strategy and the commitment of partners to their delivery is crucial to the successful implementation of the LDF.

Governance Structure

3.5 The Royal Borough's LSP – The Kensington & Chelsea Partnership – has been heavily involved in the preparation of the IDP, in order to allow joint 'ownership' of the process, and understand responsibilities of delivery for each partner organisation. Figure 3.1 below illustrates the IDP governance structure; while it is a core piece of evidence for the LDF, it is also essential to delivering aims of the LSP.

Figure 3.1 Governance Structure of IDP



IDP Process

- 3.6 In order to ensure that this infrastructure capacity assessment is robust a combination of qualitative and quantitative research techniques, including consultation, analysis of statistical data, and a review of existing and emerging studies has been undertaken.
- 3.7 In terms of consultation, a combination of workshops, one-to-one meetings and telephone interviews have formed part of the consultation process. The emphasis of which has been to focus on obtaining the commitment of key partners to this strategy. Annex 3 provides a list of key partners who have contributed to this assessment.

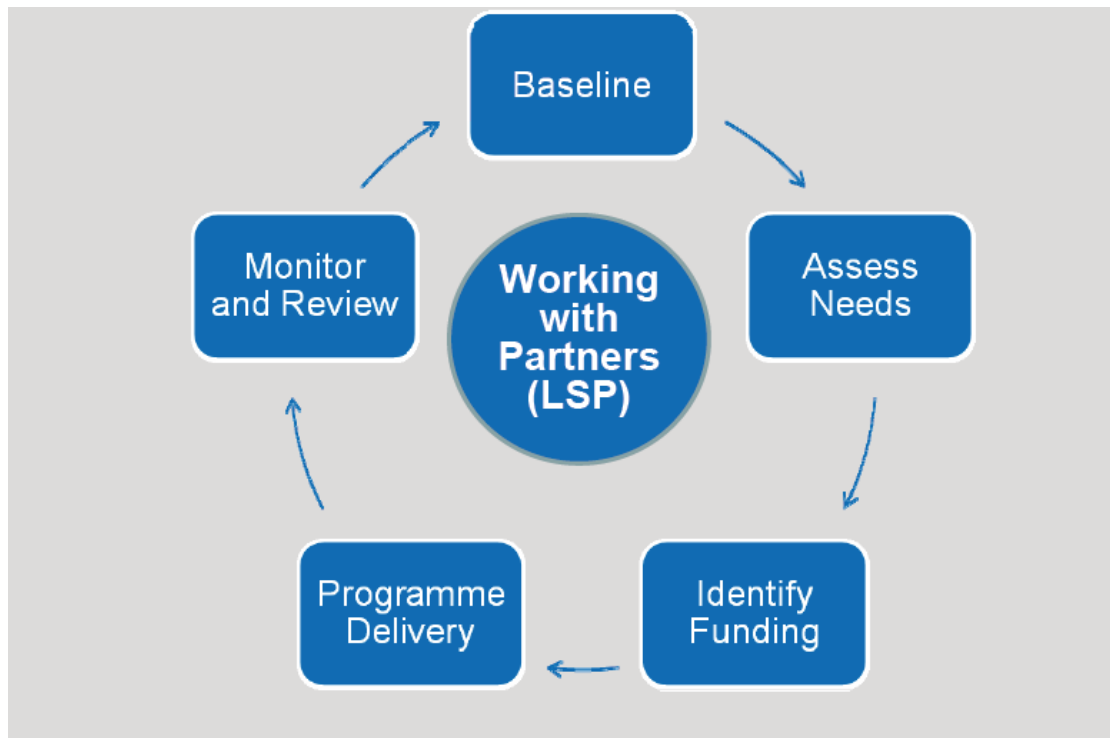
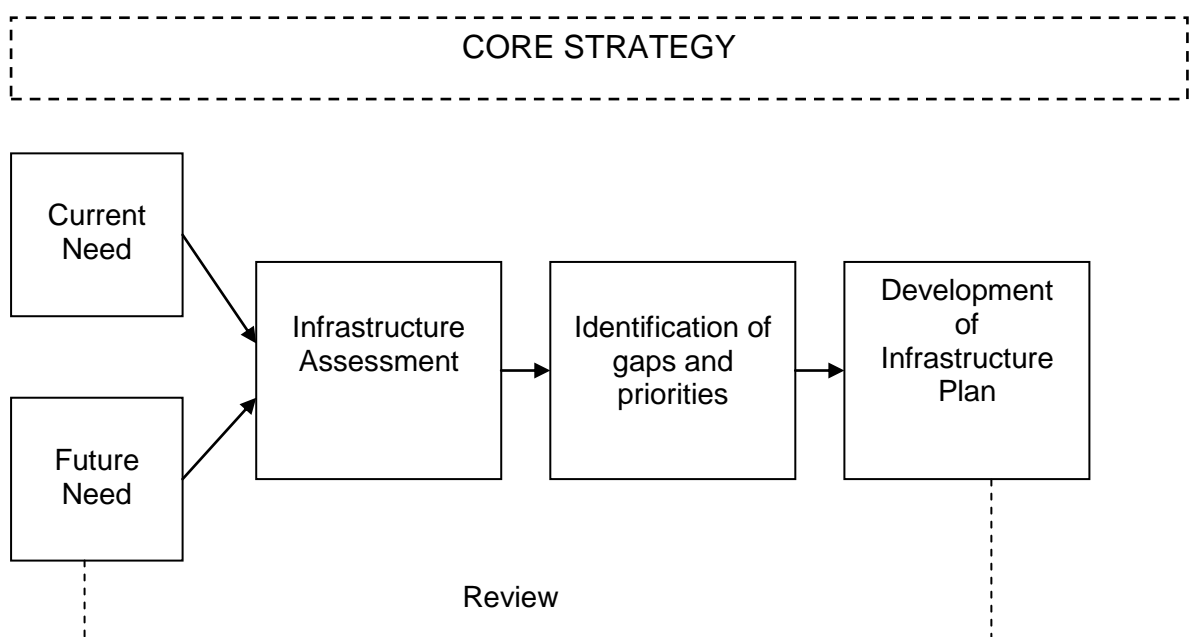


Figure 3.2: Partner Working in Infrastructure Planning

3.8 This consultation approach, with its emphasis on partnership working has ensured a more accurate understanding and assessment of current infrastructure. The next stage of consultation will be aimed at identifying what infrastructure will be required to support development, the means by which this infrastructure could be provided and will seek to secure commitment from utility companies and other service providers to their role in its delivery.

3.9 The stages that have been completed so far and those which are required to progress the study are summarised in Figure 3.3

Figure 3.3: Stages of IDP



3.10 Each part of the process contains sub-sections as set out below:

Develop Current and Future Need Assessment:

- Review of existing and emerging studies Identification of Services
- Establish the scope of the study
- Developing data collection methodology
- Collection of data and mapping exercises

Assess Infrastructure

- Analysis of data, and assessing current capacity
- Borough-wide and sub-Region and area analysis
- Analysis through mapping and partner involvement.

Identification of gaps and priorities – the IDP

- Assessment of future requirements
- Reporting conclusions and requirements
- Examining requirements to 2028
- Means to address provision

4. Review of Existing Studies

4.1 The information gathered for this baseline report will be used in conjunction with the following existing and emerging studies and plans, to estimate the likely future demand for and provision of physical and social infrastructure over the Plan period:

- Greater London Authority: The London Plan (2008).
- The emerging Kensington and Chelsea Core Strategy

The Core Strategy will determine land use allocations and direct investment to manage the influences and opportunities that will impact on the Royal Borough development and release its future potential in certain areas.

Together the Core Strategy and London Plan comprise the Development Plan for the Royal Borough. In addition, the following list of plans and strategies has influenced the Infrastructure Study requirements. In addition, the CLIS provides a starting point for assessing infrastructure at the Borough level. This is summarised below.

Ambient Noise Strategy 'Sounder City' (GLA)
Air Quality Strategy (GLA)
Biodiversity Strategy (GLA)
Cultural Strategy (GLA)
Transport Strategy (GLA)
Energy Strategy (GLA)
The Community Strategy (RBKC)
Housing Strategy (RBKC)
Environmental Policy Statement (RBKC)
Air Quality Action Plan (RBKC)
The Tree Strategy (RBKC)
The Future of our Community (RBKC)
Cabinet Business Plan (RBKC)
Renewing our Neighbourhoods – Strategy Statement and Action Plan (RBKC)
Community Safety Action Plans (RBKC)
Arts Strategy for Kensington and Chelsea (RBKC)
Local Implementation Plan (RBKC)
Park Strategy (RBKC)
Play Strategy (RBKC)
Sports Strategy (RBKC)
Streetscape Guide (RBKC)
Draft Ambient Noise Strategy (RBKC)
Environmental Strategy 2006 – 2011 (RBKC)
Children & Young People's Plan (RBKC)
K&C PCT Estates Strategy (RBKC)
Social Service Delivery Plan (RBKC)

Central London Infrastructure Study – URS Consultants and CLF, 2009

Hard Infrastructure Assessment

Electricity

4.2 EDF are required to review network requirements every five years by the regulator and have a plan leading to 2020. However, the planning process remains mostly reactive, with investment related to specific schemes when plans are worked up. The current EDF Plan identifies a number of schemes which are planned or underway, with related expenditure of £250m.

4.3 The Central London Infrastructure Study reveals that utilities provision is fundamental to the delivery of planned growth. While data is lacking to evidence EDF's own plans for growth, and to quantify existing and planned capacity in the existing network, planned provision investment is unlikely to cover forecast demand.

4.4 EDF need to be engaged early in the planning process and future requirements need to be co-ordinated in a strategic manner with adjacent growth areas for the major works.

4.5 It also highlights that significant 'local' works may be required. While more defined development areas may well be required in order to establish appropriate design, the current system is in general too reactive to respond to the long term growth agenda and Central London authorities should lobby for better engagement and a more strategic approach.

Gas

4.6 The gas providers do not publish strategic plans and through the CLIS process engagement was difficult. This highlights the need for London authorities to lobby for an improved framework for strategic partnership working, and to engage early where at all possible.

4.7 Consultation with National Grid indicated that for the five Central London authorities which it covers, there is likely to be sufficient capacity within regard to medium and the higher pressure gas networks to cater for demand up to 2028.

Sustainable Energy

4.8 The CLIS studied existing and potential combined heat and power schemes for Central London as part of a mapping exercise, and comprehensively illustrates that the creation of a Central London wide sustainable energy infrastructure through a decentralised energy strategy is feasible.

4.9 The CLIS identifies successful initiatives and work so far in the promotion of district heating and renewable power, and issues around further development in the Central London area, include:

- *Economic Incentives* - The 'Energy Act 2008' provides for the introduction of feed-in tariffs for renewable electricity and incentives for renewable heat. These financial incentives and the work being carried out by OFGEM and

BERR will improve the business case for sustainable energy and encourage private sector investment. However, the availability and likelihood of obtaining funding remains a key priority going forward. It is anticipated that where the Central London authorities will need to contribute is in creating the opportunity and providing land for energy centres.

- *Partnerships for Funding and Delivery* - Bodies such as the London ESCo or DED Unit are in a position to take advantage of possible Government funding, and to establish inter- and cross-borough PPPs to deliver decentralised energy. They are responsible for actively seeking to invest in projects and create commercially viable ESCos serving local communities. Their involvement is critical to implement a successful Central London heat and power infrastructure.
- *Opportunities for Decentralised Energy Through Inter- and Cross-Authority Partnerships* - It is essential that the public sector continue to connect 'anchor tenant' heat loads to kick start build out of decentralised energy schemes to ensure the economic viability of a decentralised energy scheme, as has been the case for the Barkantine CHP scheme, Pimlico district heating scheme, etc.
- *Industry Standards and Regulation* - London wide standards and technical specifications for heat networks, but also national heat network standards (a British Standard (BS)). The definition of zero carbon to recognise near site provision is becoming an extremely prevalent topic

4.10 Further policy/financial changes are required to establish the drivers for investment in an uptake of decentralised energy schemes. Economic incentivisation is identified as essential to driving the uptake of a decentralised energy strategy. These policy drivers are emerging and will only improve the opportunities for partnership (PFI's and PPP's) and delivery. The role of the Central London authorities is critical in developing local planning policy to create expectations for new and existing developments to connect to distributed energy networks, further incentivising uptake. There is an expectation on local authorities to implement the aims and objectives of national planning policy, and clearly opportunities for partnerships and local authority buy-in, the creation of appropriate partnerships and development.

4.11 While recent policy developments represent significant steps forward in terms of the promotion of CHP and renewables, a series of risks to delivery remain, most importantly relating to the technical such as connecting district heating systems back into the grid, and regulatory issues such as competition law and the role of the ombudsman. There is uncertainty about how these issues will be resolved in the future and how the context for developing CHP and renewable energy will evolve.

Telecommunications

4.12 The CLIS process indicates that BT is set up to respond reactively to development rather than to plan provision in a strategic way. In general

capacity constraints are less of an issue for telecommunications than for some other areas of infrastructure.

- 4.13 Early and ongoing communication by Central London authorities is suggested so that a co-ordinated delivery can be established and to minimise risks to the delivery of growth.

Water

- 4.14 Thames Water have identified a likely future deficit in supply of water in the London water resource zone to 2034, and strategic plans to address this are being formulated. However detailed information on the methodology used to establish estimated demand and of the investment programmes is not available. Therefore a meaningful comparison with local estimates of demand, and a critique of the needs assessment, has not been possible.

- 4.15 Like the other utility providers, Thames Water is in the main set up to respond to detailed development schemes as they come forward and their capacity to engage in meaningful dialogue with partners on strategic planning is somewhat limited. This is a flaw in the existing system and a risk to growth. Central London authorities should make efforts to engage in meaningful dialogue with Thames Water at the earliest possible stage in the authorities' strategic planning process.

Sewers

- 4.16 The assessment of foul flow rates up to 2028 indicates that Thames Water have adequately predicted the sewerage infrastructure required for Central London up to 2028. Currently sewer flooding is known to be widespread and this situation is predicted to deteriorate by 2015. Thames Water are undertaking a sewer alleviation programme, but this will not be completed until 2035, nine years after the end of the study period.

- 4.17 It is not possible to predict with any quantitative accuracy the future requirement for sewer infrastructure, based on existing information. There are potential gaps in provision as a result of the current planning system arrangements. Under the current planning regime, developers have an automatic right to connect new developments to the public sewer system once planning permission has been granted.

Flood Risk

- 4.18 Thames Water and the EA are making long term plans to mitigate flood risk through the Thames Tunnel and TE2100 schemes. However there is insufficient data available on these planned investments to enable a detailed assessment of these strategies to manage increased flood risk, or to identify costs specifically associated with Central London.

- 4.19 While maintaining hard flood defences is vital, it will be important for the local authorities to work together with the Environment Agency to implement a unified set of flood management standards, as well as with Thames Water and other agencies involved in the planning and funding of these schemes.

Currently there are a variety of standards that provide guidance on flood risk and defence including: Planning Policy Statement 25 (PPS25): *Development and Flood Risk*, the London Plan, each authorities' Strategic Flood Risk Assessment (once published) and local planning guidance (either Unitary Development Plan or Local Plan).

Waste Management

4.20 In the Central London local authorities, waste is primarily transferred, treated and disposed of outside the local authority in which it is generated. Increases in population growth and consumption will lead to an increase in the volume of waste generated, so the challenge is to manage the disposal of an increasing volume of waste being generated, whilst having to divert waste from landfill and reuse/recycle a high proportion of the waste streams using the limited number of waste facilities in the Greater London area.

4.21 It is evident that the rising cost of landfill has potentially significant implications for the Central London authorities, highlighting the urgent need to comprehensively plan for sustainable waste management.

Transport Infrastructure Assessment

4.22 London in general, and central London in particular, now has an infrastructure investment programme that should put it on a footing to meet the challenges posed by London 2012 and housing/employment growth to 2028, as well as reversing years of under-investment.

4.23 CLIS analysis shows that committed schemes in central London, and on rail routes into the centre, should at least hold conditions on the rail network stable and, at the same time, provide much needed modernisation.

4.24 However, several threats remain and the ability of rail systems to handle passenger increases facilitated by line upgrades will depend upon matching increases in station capacity. While several critical improvements are programmed at stations such as Victoria and Bank, and several others such as Liverpool Street and Tottenham Court Road will be delivered by Crossrail, there are still many stations where works are not programmed.

4.25 Bus patronage is projected to increase by 40% in London and by a broadly comparable amount in central London, yet London Buses expects bus kilometres operated to increase by only 8% to 2018. Regardless of the number of buses and bus passengers circulating in central London, buses are just as prone as other vehicles to delays caused by congestion and roadworks.

4.26 The Mayor has announced a blitz on roadworks but the reality is that the replacement of life-expired utilities will continue for many years. Buses, in recent years, have helped to relieve pressure on congested rail services and this should abate in coming years. Also, initiatives such as Legible London, bikeability and the cycle hire and cycle super highway schemes should encourage higher levels of walking and cycling in central London both for commuters and visitors.

- 4.27 The Congestion Charging Scheme has reduced the number of vehicles entering the zone by 16% compared with 2002 levels, but still about 380,000 vehicles per day enter during the hours of charging. The western congestion charge has achieved around an 8% reduction in traffic. Of the vehicles (excluding pedal cycles) circulating within the zone, less than 63% are potentially chargeable (as measured by vehicle kilometres driven). The congestion benefits of the charging zone have been largely negated in recent years by roadworks and many highway routes within the zone are seriously congested. .
- 4.28 There are no plans for significant road network infrastructure investment in central London, but Transport for London makes a significant financial commitment to traffic management improvements, new signal systems (SCOOT) and real-time monitoring. The Mayor has announced a programme of re-timing traffic signals to increase capacity but this will take several years to complete.
- 4.29 Clearly, attempting to meet drivers' expectations within central London would be unrealistic and the current strategy, based on high-tech traffic management solutions, and focusing on blackspots is the correct approach.
- 4.30 The current investment plans to 2018, including Thameslink, the East London Line Extension and Crossrail clearly add significant additional public transport capacity but leaves several residual problems or issues. Post-2018, further capacity increases will be required but, at present, no firm proposals exist.

Social infrastructure assessment

Adult Learning and Further Education

- 4.31 There is an expected increase across England in population at age groups 16-18 and 19-65 and similarly an increase in participation levels resulting in a forecast increase in demand for Further Education and Adult Education in England.
- 4.32 Based on modelling these, the CLIS expects Central London to experience similar trends, particularly with population and increased participation rates for 16-18 age groups in Further Education. Southwark, Islington and Camden are likely to experience the highest level of growth in Central London, with potentially additional pressure deriving from projected growth in neighbouring Hackney, Tower Hamlets and Lambeth.
- 4.33 Funding for capital investment in England and in London is increasing and this is in line with the projected population and participation increase. To ensure the projected demand for FE and Adult Learning in Central London is met there will need to be a sustained increase in funding. There is a risks to delivery associated with the availability of these capital funds. Moreover, funding is allocated based on historical rates and on a three year funding cycle,

implying that local institutions may face funding gaps if growth in students is abrupt.

- 4.34 The Central London authorities should engage early on in the planning process with the LSC and its replacement agencies as there is a lack of comprehensive published data on future investment plans which makes meaningful analysis of and planning for future needs difficult.

Higher Education

- 4.35 There are currently 24 universities in the six Central London authorities considered. A meaningful strategic assessment of demand for HE across the Central London local authorities is difficult as demand is not related directly to residential or commercial growth. Based on age cohort analysis, there is an expected decrease in demand across England for Higher Education up to 2021, followed by an increase up to 2029.

- 4.36 Estates Strategies for each university in the Central London area already identify major issues regarding future demand and provision of Higher Education highlighting that considerable funds are required to maintain the existing estate.

- 4.37 In addition ambitious major projects are underway and planned for future years. Needs for new space relate not just to academic uses but also student housing and support services, and to wider drivers such as the research sector and local regeneration initiatives. The documents however highlight the difficulty in meeting the required expansion of both academic and accommodation facilities, due to the pressing maintenance and refurbishment needs of the existing stock. City University appears to additionally suffer for the lack of spatial opportunities to expand its student accommodation facilities, which it considers to be hindering its competitiveness.

- 4.38 The Central London authorities should continue to work closely with HE institutions which are important partners in delivering expanded, higher quality education and associated infrastructure to meet growing demand in future years.

Primary Healthcare

- 4.39 Most of the Central London PCTs have completed their PCT Commissioning Strategy Plan for the 2007-2012 period.

- 4.40 The CLIS assessed the available documents which include valuable information on the current provision of primary healthcare services, but show a lack of analysis of likely future needs. City and Hackney, Southwark and Kensington and Chelsea PCTs are the only ones to provide forecast additional requirements based on projected population growth.

- 4.41 Engagement with the PCTs to consult with them and obtain the relevant data was, in general difficult. Joint working between the PCTs and Central London authorities needs to be improved to ensure primary health requirements are fully incorporated into strategic forward planning.

- 4.42 The run of the HUDU model identifies that significant investment will be required to meet health requirements up to 2028. Funding for primary health is allocated on a three year basis, making assessment of planned long term future investment difficult. It should be noted that the HUDU model does not take the baseline position into account and also does not reflect evolving models of healthcare provision, and so the estimates of required provision and associated costs generated may be exaggerated.
- 4.43 The evidence on current provision highlights that many of the Primary Care facilities in Central London are of poor quality and in old buildings that are no longer suitable for modern health care. As a result PCTs may need capital resources devoted to the upgrade and refurbishment of existing facilities, in turn potentially diverting resources from the expansion of capacity.
- 4.44 This may be particularly relevant to Islington, Kensington and Chelsea and Camden. In terms of forecast requirements:
- There is a drive not only to improve existing facilities but to change the model of delivery including a drive to decrease GPs operating in small practices / alone and to invest in expanded primary healthcare centres which offer a wider range of services. This is significant in steering future estate strategy. The projected primary healthcare needs emerging up to 2028 may constitute an opportunity for the PCTs to deliver their vision.
 - There is a lack of workings quantifying requirements in future years. However most PCTs acknowledge the need for considerable investment in making the current estate fit for purpose and in providing for new future need.
 - There is an identified the need for new GPs up to 2028 and beyond but PCT figures appear in excess of the HUDU estimates, though it should be noted that PCT analysis takes advantage of a better local knowledge, and potentially incorporates evidence of existing shortfalls in provision that the HUDU model itself disregards.

Secondary Healthcare

- 4.45 As with primary healthcare the major finding of the CLIS assessment is the lack of systematic information. For secondary healthcare even baseline information was difficult to gather. The PCTs' commissioning strategies list existing acute, mental and intermediate care providers, however no thorough evidence on their current capacity is available either through the individual PCTs or through the London Strategic Health Authority. The same holds for analysis of future demand and planned costs and investments.
- 4.46 The lack of a unique source of information at the regional (London) or sub-regional (Central London) level may constitute an obstacle to the delivery of the additional infrastructure required to satisfy projected level of demand. Cross boundary movements can be considerable for secondary healthcare services, and integrated information may be essential in ensuring provision throughout Central London in time to meet additional demand.

4.47 The HUDU model requirements and costs for primary and secondary healthcare were analysed. In terms of primary healthcare requirements Camden is in need of the highest number of GPs, and Southwark required the greatest secondary healthcare requirements in terms of acute, mental and intermediary care. Regarding the capital costs, Southwark PCT requires the highest amount to build the new facilities and operate them.

Police

4.48 The police do not forecast the numbers of officers required in each local authority on a population basis, and there are no such workings available to quantify future demand. Central London authorities should engage with the Metropolitan Police to understand their future requirements and changing models of service delivery. There is a need to renew many Metropolitan Police stations as 40% of the buildings predate 1935 and are in inappropriate locations. RB Kensington and Chelsea is identified by the Metropolitan Police as a priority for future investment.

4.49 Future plans to improve the police estate are strategic with one key aim to introduce the development of patrol centres in each authority.

Fire & Ambulance

4.50 The London Ambulance Service is under pressure from the increased number of 999 calls. Of all the Central London authorities, Westminster had the highest number of incidents per local authority in both 2007 and 2008.

4.51 The demand for ambulance provision in the local authorities is forecast using historical incident data within the PCT they attend. However no data on forecast demand or estate strategy is available.

5. Scope of Work

- 5.1 This assessment has focused on setting the current infrastructure context in the Borough, by achieving a knowledge and understanding of the issues relating to the provision of infrastructure. This will provide the foundation for the strategy, which will set out how the Council and key partners intend to implement the LDF and deliver the associated infrastructure requirements.
- 5.2 This report covers physical, social and green infrastructure in Kensington and Chelsea, in order to ensure that it embraces all matters necessary for the achievement of LDF policies, proposals and aspirations.
- 5.3 The scope of facilities that have been investigated is set out below:

Section 7: Transport

Public transport
Highways
Cycle routes
Public rights of way

Section 8: Utilities & Waste

Telecoms
Gas
Electricity
Water
Waste water
Waste
Renewable energy

Section 9: Social Infrastructure

Health
Education
Emergency services
Community centres
Voluntary services
Social services
Custodial services
Post offices
Social housing

Section 10: Environmental & Green Infrastructure

Biodiversity
Cemeteries
Flooding prevention
Open spaces
Sport & leisure provision
Outdoor sports pitches
Play areas

Section 11: Culture & Leisure

Conservation areas & historic buildings

Libraries

Cultural facilities

6. Existing Capacity and Infrastructure Demand Summary

- 6.1. The following sections outline the capacity situation for each infrastructure type, identifying the organisation responsible for that service and investigating how the service is provided. The current provision has been assessed using available evidence from the Council, infrastructure providers and national data sources. Where appropriate, geographical information systems (GIS) have been used to create spatial maps and analyse data.
- 6.2. Assessment of future need is related to projections from the baseline year (2006) of dwellings, population and commercial floorspace. The data used is borough projections, and for comparative purposes, these are assessed against other central London boroughs.

Figure 6.1 : Dwelling Projections in Central London, '000s, 2006-2028

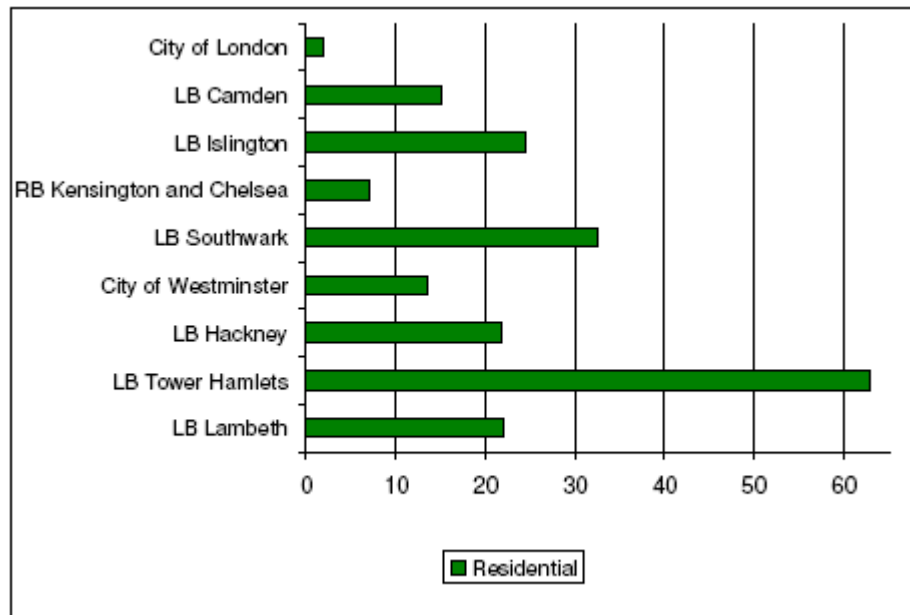


Figure 6.2: Population Projections in Central London, '000s, 2006-2028

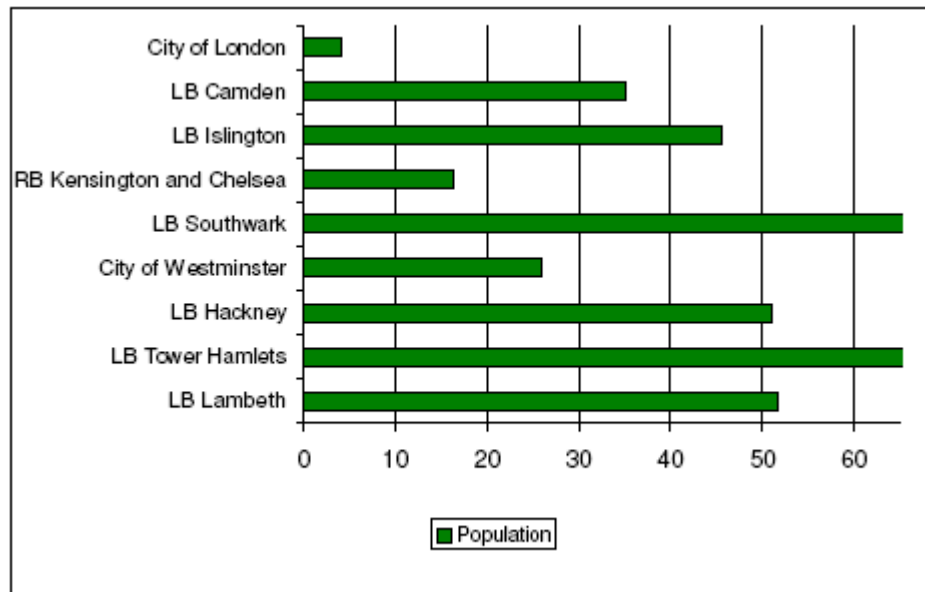
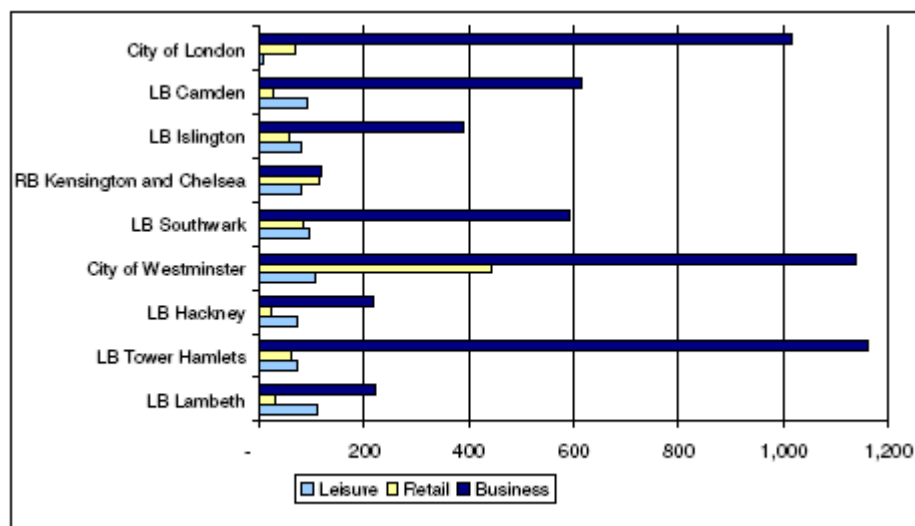


Figure 6.3: Commercial Floorspace Projections in Central London, '000s, 2006-2028



Infrastructure Priorities

6.3. Figures 6.4 and 6.5 below draw together the outcomes of the CLIS modelling exercise, which can be found in full in the CLIS. It is not possible to compare these forecasts of demand and cost with those of the infrastructure providers in a systematic way. This is because appropriate corresponding data is not available from many providers. The exception to this is the data on demand for gas; the figures and assumptions have been verified by National Grid. Nonetheless the estimates of quantum and cost provide an understanding of the scale and context of future growth, and a starting point for further analysis and consultation with partners.

Table 6.4: Summary of estimated infrastructure demand associated with new development for Central London Authorities, 2006-2028

Authority	FE and AL FTE Places	GP & Primary Care	Acute and Mental Care Beds	Intermediate Care Beds & Spaces	Electricity kVA	Gas M3/hour	Water Litres/ day	Sewerage Litres/ day
RBKC	1,502	10	45	7	37,997	7,116	4,154,911	6,277,227
City of London	386	3	18	1	78,279	2,512	6,782,306	11,213,081
Camden	3,214	18	90	18	76,633	13,806	9,374,746	14,002,026
Islington	3,573	20	102	19	78,627	20,682	9,737,910	14,095,427
Southwark	6,995	33	154	28	108,991	28,729	15,756,359	22,619,426
Westminster	2,300	4	19	4	150,740	13,584	13,163,847	21,179,897
Central London total	17,970	87	427	77	531,267	86,430	58,970,079	89,387,084

6.4. Table 6.5: Summary of Estimated Social Infrastructure Costs associated with new development for Central London £M (2009 prices) 2006-2028;

Authority	FE and AL FTE Places Required	GP & Primary Care	Acute and mental Care	Intermediate care	Total (for RBKC)
RBKC	37.5	6.3	9.4	3.5	56.7
City of London	9.7	1.2	2.7	0.3	-
Camden	80.3	15.8	26.7	12.8	-
Islington	89.3	14.1	23.7	11.4	-
Southwark	174.9	34.5	55.0	22.3	-
Westminster	57.5	2.4	3.5	2.1	-
Central London total	449.3	74.3	121.0	52.5	

7. Transport

7.1 Kensington and Chelsea has an extensive primary route network, connections to the road network. Public transport links include rail, underground and bus services. Kensington and Chelsea's infrastructure has to deal with considerable traffic movements on a daily basis, particularly in the morning and evening peaks. These traffic movements are growing with development and redevelopment pressures both within and outside the Borough.

Public transport

7.2 The borough is served by 32 bus routes, 13 underground tube stations (on five lines) and two over ground rail stations. Some areas of the borough have better access to public transport than others.

7.3 Data from Transport for London is able to show the numbers of people entering and exiting underground stations. The busiest station is South Kensington, followed by Knightsbridge.

7.4 The scheduled waiting time shows the time passengers would wait, on average, if the service ran exactly as scheduled during the periods observed. Excess waiting time shows the additional wait experienced by passengers due to the irregular spacing of buses or those that failed to run. The excess waiting time therefore denotes how much time passengers had to wait in excess of what would be expected. The averaged schedule waiting time for a bus in Kensington and Chelsea in 2007/08 was 3.6 minutes. The excess waiting time was one minute and this fluctuated slightly over the quarters of 2007/08.

Car availability

7.5 Data from the 2001 Census showed that around half the population had access to a car which was similar to inner London averages. More analysis on this data can be found in the 2005 publication of A Picture of Our Community. Parking spaces in the borough are limited and therefore the Council has promoted car clubs which enable residents to share a number of cars located throughout the borough. Car club bays are the on-street parking bays, used by the specific car club where a booked car is picked up and returned to.

Public Transport

Flexible Transport

7.6 Taxis and private hire vehicles, Community Transport, Shopmobility, Ring and Ride, Local Link, and Taxi voucher schemes form part of the transport choice available to people with limited access to other transport. Kensington and Chelsea currently licences around 474 private hire vehicles and 138 hackney carriages. Ring and Ride provides an accessible door-to-door mini-bus service for people who have difficulty accessing conventional public transport.

- 7.7 The Community Transport Council also administers the Disabled Parking Badge Scheme (i.e. the Blue Badge Scheme).

Analysis

- 7.8 The investment programmes that will impinge upon travel conditions in RBKC are being delivered by national and regional governments and the local highway authority. Network Rail is responsible for the national rail network, including the major rail termini, but its spending priorities are set by the Department for Transport and the Office of the Rail Regulator. Transport for London is responsible for strategic roads and buses and manages the tube PPP contract. It is also now responsible for letting concessions to operate services on the London Overground rail network .
- 7.9 For the purposes of defining infrastructure, these have been grouped into Network Rail, Transport for London and local authority schemes. Schemes are also grouped by status as either under construction, committed or planned. Committed schemes have completed all statutory processes and have a funding commitment. All schemes considered would increase transport provision in the Borough.
- 7.10 Network Rail forward plans are developed through its route utilisation strategies (RUS) that are specific to each line group or franchise. A RUS covers a ten year period . In addition, a Cross London RUS was published in August 2006. Rail priorities are set by the Department for Transport in its High Level Output Statement (HLOS), which are incorporated into the Network Rail Strategic Business Plan. The latter currently covers the period 2009 to 2014 and is known as Control Period 4 (CP4).
- 7.11 Transport for London has varied responsibilities for transport services in London. The National Rail network is owned by Network Rail, as will Crossrail be, but Transport for London now has powers to let concessions to operate services on the West London, North London and East London lines plus Gospel Oak to Barking and Watford to Euston services. TfL is the sponsor responsible for delivering the Crossrail project and will let the contract to operate services.
- 7.12 TfL operates tube stations and trains but rolling stock, track and signalling systems are maintained and upgraded by the Private Public Partnership (PPP) companies that, in effect, make these systems available to London Underground. Payments to the PPP are based on availability and performance. However, the recent demise of Metronet has resulted in its contractual responsibilities being assumed by TfL. The remaining PPP Infracore, Tube Lines, remains responsible for the Jubilee, Northern and Piccadilly lines
- 7.13 Transport for London has begun modelling the implications for rail overcrowding given that overcrowding on some areas of the network will still exist to 2028 and beyond even after taking into account Crossrail and Thameslink. The GLA Transport Committee has reported that Transport for

London has developed initial proposals for inclusion of a follow on programme to the train and platform lengthening programme currently being taken forward, namely HLOS2. This programme would include longer and more frequent trains on most lines into London, associated platform enhancements and increases in station capacity to cater for the increased number of passengers.

- 7.14 Crossrail is not included in the above analysis but this will provide additional rail capacity into Paddington and Liverpool Street from 2017/18 onwards. In theory, Crossrail will provide a peak hour capacity of 15,000 passengers into Paddington and 36,000 passengers into Liverpool Street (based on provisional capacity of 1,500 passengers per train). However, some of this capacity is a substitution for existing Great Western/Heathrow and Great Eastern/West Anglia services. Also, Crossrail will provide relief to London Underground services as much as to National Rail services.
- 7.15 A Crossrail station in Kensal will assist delivery, although it is not contained within the legislation. It will also be key to unlocking the site.
- 7.16 Rail and tube upgrades will provide most of the increase in public transport capacity to 2028. Transport for London expects to operate an additional 8% bus kilometres by 2018 but is projecting a 40% increase in patronage by 2028 across London. The intention seems to be to bridge this gap by a more efficient distribution of services, with capacity switched to more popular routes.
- 7.17 A strategic review of bus services in London is commencing in 2009 and only after this has reported will it be possible to gauge the extent to which current investment plans are adequate.
- 7.18 The current investment plans to add significant additional public transport capacity but leaves several residual problems or issues. Post-2018 and towards 2028 further capacity increases will be required but, at present, no firm proposals exist. The main investment priorities from this analysis are considered to be as follows:
- More targeted traffic management measures to alleviate congestion hotspots in the Borough.
 - Extension of LUL congestion relief programme to stations – e.g South Kensington, High Street Kensington
 - Possible further extensions to the DLR to Charing Cross and Victoria.
 - Crossrail 2 Chelsea to Hackney line (although funding is unlikely to become available until 2025 but this remains within the current LDF plan periods).
 - Interchange improvements at stations, e.g. Earls Court Station and West Brompton.
 - Public realm improvements at locations identified in Central London Pedestrian Study.
 - More positive measures to assist cyclists, including priority measures and cycle hire schemes

- It is important that future transport strategies for each mode are closely linked.
- 7.19 Finally, there is a need for TfL to be more specific with planning authorities by identifying specific sites to safeguard for forthcoming transport schemes rather than non-specifically directing them to safeguard sites but without identifying where.

8. Utilities & Waste

Telecoms

- 8.1 British Telecom (BT) report that in their opinion adequate infrastructure capacity is available in Kensington and Chelsea at present. In terms of future capacity, the licence under which BT operate requires them to provide network capacity *upon request* only.
- 8.2 Discussions with BT have identified that the works in the highway to complete renewals and/or new duct tracks are likely to increase on average by 15%, or so, by 2028 within the Royal Borough.
- 8.3 Funding frameworks have changed in recent years. For local schemes, BT now charge beyond a certain ceiling for connections (previously connections were free); strategic works can be funded out of BT's overhead structure.

Gas Supply

Gas Transmission

- 8.4 National Grid owns and operates the high pressure gas transmission system in England, Scotland and Wales that consists of approximately 4,300 miles of pipelines and 26 compressor stations connecting to eight distribution networks. National Grid has a duty to develop and maintain an efficient coordinated and economical transmission system for the conveyance of gas and respond to requests for new gas supplies in certain circumstances.
- 8.5 The network is ageing and at the same time must respond to requirements associated with new development. As with electricity, there is little quantitative evidence of how per capita consumption of gas may change in the future, and of the degree to which renewable sources could meet future demand for gas.
- 8.6 CHP systems, when employed to provide district heating schemes as well as electricity generation, achieve greater efficiencies than individual means. The per capita impact on the gas network is not yet fully determined.
- 8.7 New gas transmission infrastructure developments (pipelines and associated installations) are periodically required to meet increases in demand and changes in patterns of supply. Developments to the network are as a result of specific connection requests e.g. power stations, and requests for additional capacity on the network from gas shippers. Generally network developments to provide supplies to the local gas distribution network are as a result of overall demand growth in a region rather than site specific developments.
- 8.8 The gas providers do not publish strategic plans and quantification of future needs is difficult. This highlights the need for the London authorities to lobby for an improved framework for strategic partnership working, and to

engage early where at all possible. Consultation with National Grid indicated that for the Royal Borough, and other inner-London authorities which it covers, there is likely to be sufficient capacity within regard to medium and the higher pressure gas networks to cater for demand up to 2028.

National Grid's Gas Infrastructure

8.9 The following National Grid gas transmission assets are located within Kensington and Chelsea's administrative area:

8.10 Kensal Gas Works – plans for removal/replacement

Electricity Supply

Electricity Transmission

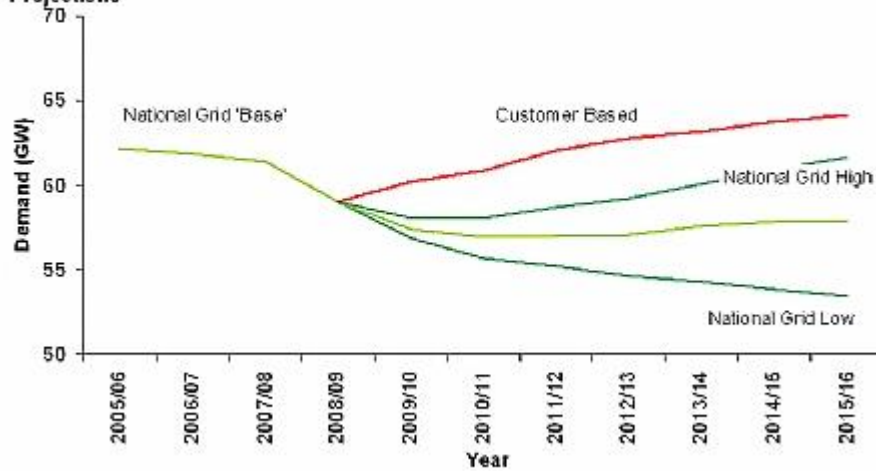
8.11 National Grid, as the holder of a licence to transmit electricity under the Electricity Act 1989, has a statutory duty to develop and maintain an efficient, co-ordinated and economical transmission system of electricity and to facilitate competition in the supply and generation of electricity.

8.12 As with gas, the network is ageing and at the same time must respond to requirements associated with new development. Per capita consumption of electricity may increase in future years, implying that even if there were no new developments at all, the demand for energy would still increase – for example, due to the increasing aspirations of individuals and more materialistic outcomes (televisions in more than one room being a good example). Of course, government aims to increase energy efficiency and encourage lower per capita energy usage, and this may be achieved through the Code for Sustainable Homes and other regulatory initiatives. However there is as yet no quantifiable evidence of success and so a pragmatic, cautionary approach appears sensible.

8.13 National Grid operates the national electricity transmission network across Great Britain and owns and maintains the network in England and Wales, providing electricity supplies from generating stations to local distribution companies. The company does not distribute electricity to individual premises directly, but its role in the wholesale market is essential to ensuring a reliable and quality supply to all. It is the role of local distribution companies to distribute electricity to homes and businesses.

8.14 Figure 8.1 shows the demand forecast supplied by National Grid, used as the base for projections within the UK, and applied locally. These 'User' based forecasts show stronger growth; particularly over the next couple of years, however, infrastructure and planned maintenance is predicted to cope with this level of growth, meaning that the main infrastructure requirements for RBKC will be the known works necessary a Kensal (see annex 1).

Figure 2.5 - Comparison of Customer-Based Forecast and National Grid Projections



National Grid's Electricity Infrastructure

8.15 National Grid high voltage electricity transmission assets that form an essential part of the electricity transmission network in England and Wales, are outside of Kensington and Chelsea's administrative area:



Electricity Distribution

Overall Capacity - Gas & Electricity Supply

8.16 Information received from providers detail that developments in Kensington and Chelsea should not in principle represent a major issue for National Grid's electricity or gas transmission network.

Water Supply

- 8.17 Kensington and Chelsea is currently provided with drinking water from Thames Water. United Utilities have stated that they do not foresee any water provision issues for Kensington and Chelsea and its predicted growth. But there may be a need to provide local water network reinforcement for significant developments at the expense of the developer.
- 8.18 Clean water to the London authorities included within the Infrastructure Study is supplied by Thames Water. The Thames Water supply area is divided into six independent water resource zones. The largest of these is London which covers the Greater London Area.

Waste Water and Water

- 8.19 Sewer flooding has been worsened in the past due to urbanisation, most significantly where gardens have been paved over preventing rainwater from soaking into the soil naturally. The implementation of Sustainable Urban Drainage Systems (SUDS) in new developments will also be an important measure mitigating increased run-off from developed areas.
- 8.20 Future development in the Borough will therefore necessitate investment in new sewerage infrastructure to increase capacity. In addition, existing assets will continue to require maintenance and improvements. Possible measures to meet future expansion in levels of service provision include the following:
- New infrastructure to accommodate population and employment growth and sewer flooding alleviation at Counters Creek
 - Tideway Tunnel and associated improvements. Thames Water has committed to virtually eliminate high risk sewer flooding by 2035, by installing oversized pipes or tanks to increase sewer capacity. It is not yet possible to determine areas that will be at risk of sewer flooding by 2028 because network models are still being developed to assess where capacity improvements are required.
- 8.21 The volume of sewage treated per day in 2028 was estimated based on predicted growth figures, to evaluate Thames Water's plans and thereby check for gaps in provision of sewerage infrastructure. The same method was used as in the baseline section, subject to the same limitations, using the predicted residential population and commercial floorspace and 'Sewers for Adoption'. These flow rates were compared with flow rates received at Thames Water treatment works calculated from data provided by Thames Water.
- 8.22 Planning Policy Statement 25, Development and Flood Risk indicates that the anticipated increase in rainfall intensity due to climate change is estimated to be 5% in the period up to 2025. Extreme rainfall events are predicted to increase in frequency over the years requiring greater capacity in sewers. Hotter, drier summers will increase the demand for water and therefore increase pressure on sewers.

- 8.23 Thames Water assesses that up until 2034/35 within the London zone the population will rise by 1m people with a consideration via an additional allowance for clandestine ('unaccounted') population and / or short term migrant population. Over the whole of its supply area, Thames Water estimate that each person uses on average 160 litres of water per day although conventional planning approaches normally apply a slightly lower range of 150l/day.
- 8.24 Water use per person is affected by several factors; typically, these are household occupancy, water use via appliances, fixture and fittings within the property, householders' water use behaviour, garden use and whether the property is metered or not. It is certainly possible that per capita usage of water will decrease in future years due to the economic climate, policy drivers such as the Code for Sustainable Homes and supply-side measures such as use of harvested rainwater. Thames Water identify that although there is increasing pressure to use more water efficient appliances and an improvement in the education of the wider population to use water more wisely, this will not be enough to off-set other factors. They forecast that overall demand for water will rise due to an increasing population, an increase rise in single occupancy houses still using all the appliances of a larger unit, smaller family groups and climate change.
- 8.25 Current thinking is that there is a proposal to follow a 'twin track approach' in balancing the supply and demand which involves the use of enhanced demand management activities combined with the development of new resource schemes. Initially, Thames Water is proposing a significant programme of demand management to close the supply demand deficit which primarily include leakage reduction techniques (the replacement of Victorian mains) and active leakage control; in addition, a progressive programme to employ compulsory metering (the plan being to increase the proportion of domestic properties with meters from 25% to approximately 54% over the next 5 years) and establish an enhanced water efficiency programme.
- 8.26 The total additional demand in litres per day is likely to be in excess of 4M Litres per day over the period 2008-2028 for RBKC.

Assessment of Additional Demand for Water from New Development, L/day, 2008 – 2028

Kensington & Chelsea

Residential 2,465,717

Non Residential 1,689,194

Total Demand 4,154,911

Waste

8.27 There is a range of existing facilities for waste management serving Kensington and Chelsea, including household waste recycling centres, transfer stations, treatment facilities and recycling plants.

8.28 Future drivers of demand and supply:

- Legislation; e.g. the EU Landfill Directive requires a reduction in the amount of biodegradable municipal waste disposed of to landfill in 2010, to 75% of the amount sent in 1995; and
 - Recycling target for household waste set by the Government; e.g. one third to be recycled or composted by 2005/06 based on 1998/99 data.
 - Increases in population growth and consumption will naturally lead to an increase in the overall volume of waste generated by the London authorities. Some limited information on population growth is discussed in the available waste reports.
- 8.29 The capacity for treating and disposing of municipal waste in London is restricted and primarily centres on incineration, using two waste to energy incinerator plants, one in Edmonton (London Borough of Enfield) and one in Lewisham (London Borough of Lewisham). According to the GLA, in 2001/2002 approximately 19% of London's municipal waste was incinerated at these two plants (530,000 tonnes/annum at Edmonton and 419,000 tonnes at Lewisham). London's incineration capacity is estimated by the GLA to be 1.5 million tonnes/annum.

Renewable Energy

- 8.30 The Royal Borough of Kensington and Chelsea has Information on future development of and demand for renewable energy or combined heat and power installations for Kensington and Chelsea will be discussed with infrastructure providers, and used to update and inform this Plan.

9. Social Infrastructure

Health

9.1 Health care remains the responsibility of central government through the Department of Health (DoH). A number of organisations including NHS Kensington and Chelsea (formerly Primary Care Trust (PCT)) who implement the provision of health care within Kensington and Chelsea. They direct financial resources to primary and secondary care providers and regulate the primary care activities of General Practitioners (GPs), Dentists, Optometrists and Pharmacists.

9.2 NHS K&C currently provides services on some 16 sites through 18 practices, that are freehold or leasehold to the PCT including hospitals, clinics and nursing homes. Within these sites there are other NHS organisations that rent/lease space from the PCT. In addition, the PCT has a number of its staff working in buildings that are owned by other organisations. Figure 91 illustrates the premises across RBKC.



Kensington and Chelsea PCT Estates Strategy | 16 January 2007

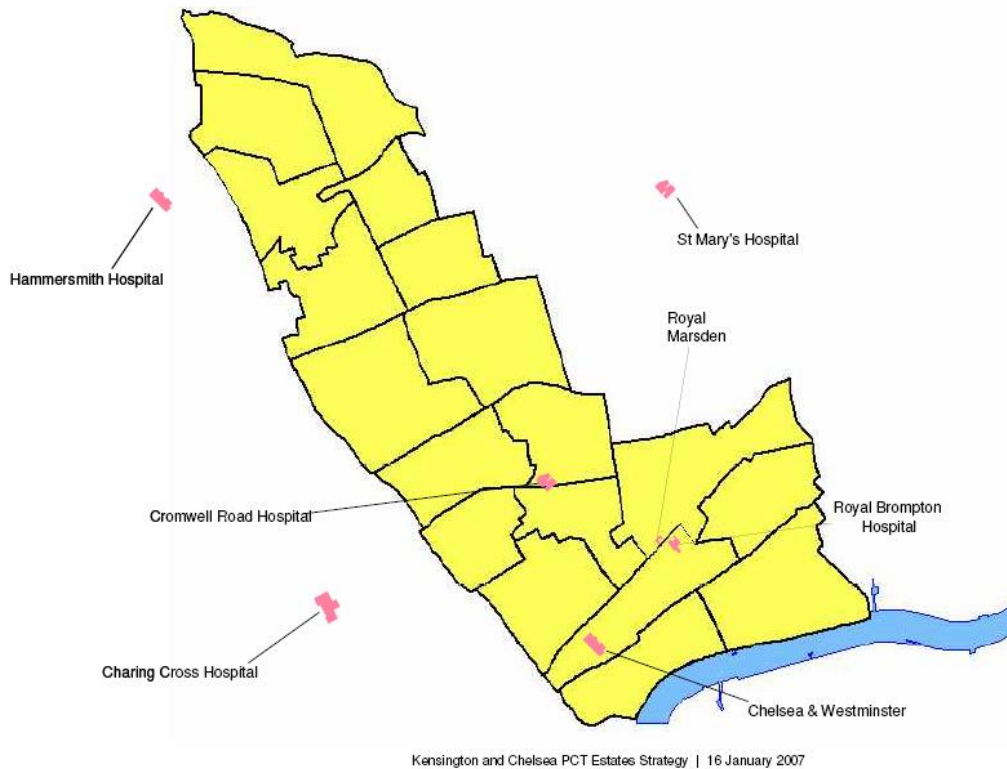
9.3 Kensington & Chelsea have identified the need for 20 new GPs up to 2018. These figures appear in excess of the HUDU estimates, but it should be noted that PCT analysis takes advantage of a better local knowledge, and potentially incorporates evidence of existing shortfalls in provision that the HUDU model itself disregards. This is roughly 1716 people per GP, which is similar to the national average of 1800:1

- 9.4 An in depth clinical service audit of premises has been undertaken and this is assisting NHS K&C to match accommodation to the current and future needs of services across the Borough. The audit has focussed on the 13 health centres and clinics and the offices within Courtfield House at St Charles and at 125 Old Brompton Road.
- 9.5 The Estate Strategy outlines how the PCT (now NHS K&C) will continue to strengthen its partnership with the Borough to ascertain the future opportunities that may arise through joint developments and co-location that could deliver a range of health and social services from a shared facility and the opportunity through larger scale planning related redevelopments and third party developments to provide new, modern facilities in the right location that offer best value for money.
- 9.6 The PCT 10 Year Primary Care Strategy considers the strategic direction of the borough in terms of land uses and associated activities. To date there is no evidence of a significant expected growth in the population of Kensington and Chelsea. However if this was to change and a large development with an expected population increase of over 10,000 was planned we would look to commission new GP capacity through a competitive tendering exercise.
- 9.7 Overall Kensington and Chelsea PCT (now NHS Kensington & Chelsea) is recognised as not being an under doctored area (Information Centre for Health and Social Care: 61.7wte per 100,000 weighted population above the threshold of 57.89wte per 100,000). This will not restrict the PCT from commissioning additional capacity to respond to the expected increased demand on primary care. Initial workforce calculations predict that Kensington and Chelsea PCT will need to recruit a further 20 GPs and 5 nurses alone to be able to respond to the increased workload of improved care for people with long term conditions. This along with other factors like increased patient choice and more access will be fed into workforce planning projections for the next 10 years.
- 9.8 The aim of the 10 Year Primary Care Strategy is that in ten years patients will be able to get more information about the quality of services, and receive those services from highly skilled, well trained and well motivated staff acting as champions for health and well-being. Where those services need to be delivered outside of the home they will be delivered in high quality carbon neutral environments.
- 9.9 In developing these potential new facilities the PCT would wish to ensure where possible:
- provide a minimum 6000 sq. ft of space
 - provide accessible, safe, flexible and adaptable accommodation to meet the changing service needs
 - Integrate with the local environment and promote regeneration
 - Provide a high quality internal environment to support health and well being for users
 - Reducing pollution and waste to avoid health and other impacts
 - Using resources (e.g. energy and water) efficiently

- Where possible facilities should have good links to public transport
 - Where access proves to be a problem due to people with limited mobility problems, the PCT will actively consider how best to provide community transport for those that need it.
- 9.10 Each dental surgery measures the capacity of dentists at the surgery through units of dental activity. Details on the level of demand and numbers of patients on waiting lists for NHS Dentists will be discussed with Kensington and Chelsea PCT and will be used to update and inform this Plan.
- 9.11 It should be noted, that this information only covers NHS Dentists and does not reflect the distribution and services provided by many private dental facilities across the Borough. Information on the use of pharmacy and optician facilities and any associated capacity issues is not available.
- 9.12 Health Premises include Health Centres and Clinics. Most Health Centres tend to have GP practices within them and the services provided to the local community tend to reflect services provided by GP practices.

Secondary Care

- 9.13 Kensington and Chelsea Healthcare NHS Trust measure activity in hospital spells. A hospital spell is the total continuous stay of a patient using a bed on premises controlled by a Health Care Provider during which medical care is the responsibility of one or more consultants. A spell can contain a number of episodes and a single patient can generate multiple spells throughout the year. During the financial year 2007-08 there were 24,490 spells, with the average spells between 2005 and 2008 equating to 25,635 spells. Source: NHS Kensington and Chelsea.
- 9.14 Some recent developments to Kensington and Chelsea's hospital facilities include a review of Princess Louise and St Charles hospital. In 2009, the PCT became NHS Kensington & Chelsea, and is in the period of a further reorganisation. Figure 9.2 illustrates hospital sites within and serving RBKC in immediately adjoining boroughs.



- 9.15 A review of the services provided at Princess Louise Hospital is currently underway. The site is operating at a loss, and the PCT are looking at options to explore the potential opportunity to redevelop all or part of the site.
- 9.16 The redevelopment of this site is seen by the PCT as a hugely valuable opportunity to address the healthcare needs of the local population, delivering locally accessible services to the surrounding community. In particular, there a number of GP practices in the surrounding area working from less than ideal facilities, who could be offered the opportunity to relocate into a new building as part of the proposed redevelopment.
- 9.17 Details on the level of demand placed on services provided by hospitals and ancillary departments will be discussed with NHS Kensington and Chelsea and used to update and inform this Plan.

Education

Children's centres

- 9.18 Children's Centres often share space within existing facilities such as schools and libraries. The sharing of space within existing facilities ensures the centres are located in accessible and convenient locations for local residents to access. Through the Infrastructure Planning work, significant scope for co-location has been identified.

School Education

- 9.19 Councils as Local Education Authorities have a statutory obligation to provide education according to the Department for Education and Skills (DfES) guidance.
- 9.20 The borough is home to 37 Council maintained schools which educate the above 10,770 pupils; four nursery schools, 26 primary schools, four secondary schools, two special schools and one Pupil Referral Unit. There are also 38 independent schools located in the borough and it is estimated that over half of the boroughs school age population are educated in the independent sector.

Pupils

- 9.21 As of January 2008 there were 10,770 pupils attending maintained schools in Kensington and Chelsea. 896 pupils attend nursery schools or a nursery in a primary school setting, 6,292 attend primary schools and 3,582 attend secondary, special schools or the Pupil Referral Unit.

Exported and imported pupils

- 9.22 Some of the boroughs resident school age children are educated in other boroughs and equally, children who are resident of other boroughs come to Kensington and Chelsea to go to school. As stated, a large proportion of Kensington and Chelsea resident pupils are educated in the private schools. The term 'exported pupils' refers to school age children who live in the borough but are educated elsewhere and at secondary age more resident pupils attend schools outside the borough than within. The percentage of children in primary (25%) and secondary schools (59%) in the borough who live elsewhere but are educated in Kensington and Chelsea and therefore deemed as 'imported pupils'.

Primary Schools

- 9.23 The Royal Borough of Kensington and Chelsea is committed to using the Primary Capital Programme (PCP) to ensure that every child and young person is equipped to be healthy, stay safe, enjoy and achieve, make a positive contribution and achieve economic well being in this vibrant, dynamic and diverse borough. The borough has a proven record of high standards and broad achievement across the range of children's services. We want to use this programme to build on that success and secure excellent outcomes into the 21st century.
- 9.24 The borough also faces a number of challenges which it must address through the PCP, these include:
- Rebuilding at least 10% of schools in the worst condition and in areas of high deprivation;
 - Ensuring there are sufficient places in schools where there is local demand;
 - Providing specialist education for pupils with SEN in the borough;
 - Targeting groups who are not performing as well as the borough overall;
 - Closing the gender gap in literacy;
 - Recruiting and retaining the best staff;

- Improving attendance, punctuality;
 - Reducing pupil and staff mobility;
 - Providing a better learning environment for pupils with behavioural issues;
 - Reaching the borough's Healthy Schools Status targets;
 - Enhancing teaching and learning through increased investment in the best information and communications technology.
- 9.25 The Primary Strategy for Change (PSfC) highlights the key areas of focus for the borough based on an analysis of the baseline data and provides a snapshot of primary education provision in the borough at this time. The borough recognises that the key areas of focus and investment priorities of the borough will change and evolve over time and that this Strategy for Change will also need to evolve to meet the ever changing environment in which we operate.
- 9.26 The Primary Capital Programme (PCP) outlines existing capacity information on current primary school provision in Kensington and Chelsea, future requirements and how these will be delivered.
- 9.27 The Borough also faces a number of challenges which it must address through the PCP. Most parts of the Borough have good access to primary schools, with the vast majority of children making journeys of less than two miles.
- 9.28 The PSP has been the main vehicle for reviewing primary school provision. The trend over the last three to five years has been one of declining numbers and the plan has supported the removal of surplus places.

Primary Provision in the North of the Borough

- 9.29 In the north, the pupil projections show a net increase of approximately 140 pupils (4%) by 2018. This results in a projected surplus of 108 places, a considerable reduction from the present figure of over 500. The existing surplus is concentrated at four schools, Avondale Park, Bevington, Middle Row and Colville, each of which has about 25% unfilled places.
- 9.30 That normally would be a warning signal to consider school closure, however, does not account for factors which reduce the surplus and demonstrate that places in the north will be needed in the future:
- major sites which may include new housing developments or extensive redevelopments which would contribute to meeting the targets of the London Plan. For the borough these targets include providing 3,500 new homes between 2007/08 and 2016/17 and of these new homes 50% will be affordable housing.
 - 90 places were taken out of school use at Colville during 2007. If the recovery in roll in 2007/08 is sustained, Colville's surplus of places will be eliminated; In summary, the borough's aim is to fill up schools where there are vacancies before looking to provide any additional accommodation. Planned developments would initially indicate that this is an achievable aim

Primary Provision in the South of the Borough

- 9.31 In the south, the pupil projections show a surplus of 88 places in 2008 becoming a deficit of 458 (or 319 excluding a 4% contingency) places by 2018. This reflects an increase in pupil numbers of 13% over the period.
- 9.32 In 2007, every school in the south of the borough but one had a full reception class, leaving only six vacancies (in a Catholic school) for new arrivals and this situation repeated in 2008. Additionally, new developments will require school capacity such as substantial areas of new development will be around Lots Road and Warwick Road in the south.
- 9.33 Some expansion of places is already desirable and this need is likely to increase when more is known of the detail of the new housing developments.
- 9.34 In summary, in the north of the borough, the number of pupils is likely to increase but not to a degree which is, on present information, likely to be great enough to out-run existing school capacity. The priority will therefore be to fill up existing surplus capacity but it would be wise also to plan in a way which gave scope for a fairly modest increase in provision in the future. In the south a shortage of places is already emerging. This may well increase as new developments are completed. Both contingencies need to be planned for now by increasing existing capacity.
- 9.35 Almost 55% of primary schools in Kensington and Chelsea were oversubscribed for the 2008 reception intake. The oversubscribed schools are generally, though not exclusively, in the more affluent areas of the Borough and have higher standards of attainment when compared to other local schools.
- 9.36 A number of schools are overcrowded, and four are more than 10% overcrowded.
- 9.37 The pupil forecast for primary school intake in 2011 illustrates further problems with oversubscription and overcrowding, especially in schools in the south of the Borough.

Secondary Schools

- 9.38 Information on current admission levels and demand for school places is not available, at present. This data will be requested from the appropriate key partners and used to update and inform this Plan.
- 9.39 The Royal Borough has only four secondary schools - one community school, Holland Park School (boys and girls), and three Roman Catholic secondary schools: The Cardinal Vaughan Memorial School (boys), St Thomas More R.C. School (boys) and Sion Manning R.C. School (girls). Only Holland Park and Cardinal Vaughan have sixth forms.
- 9.40 The Strategy for Change (SfC) is the first key document that local authorities have to produce following their entry into the BSF programme. It

is designed to capture both the local authority's strategy for secondary education and the requirements that this strategy places upon the physical school estate and ICT provision.

- 9.41 The SfC has two parts: Part 1 is a strategic document outlining at a high level, what we hope to achieve through the programme, and how our local aspirations relate to national objectives. Part 2 is the detail and delivery section of the SfC. It involves developing each individual school plan and estate strategy to meet the objectives set out in the SfC1. It is the 'how it will be done' component.

Building Schools for the Future

- 9.42 Building Schools for the Future is a national project aimed at transforming education through rebuilding or renewing all of England's 3,500 secondary schools over a 10-15 year period.
- 9.43 It is the largest single capital investment programme in 50 years, and will transform our existing schools into world-class learning environments that will enable generations of young people to reach their full potential.
- 9.44 BSF was launched by the Department for Children Schools and Families (DSCF, formerly the Department for Education and Skills) in February 2003. At the launch of the programme, David Miliband Schools Minister said that: "School buildings should inspire learning. They should nurture every pupil and member of staff. They should be a source of pride and a practical resource for the community." School buildings that support and develop an understanding of sustainability
- 9.45 The requirements of BSF have been built into this IDP.

Further Education

- 9.46 Kensington and Chelsea College offers a range of higher education and vocational qualifications including Apprenticeship, BTEC, Diploma, GCSE, HNC and NVQ.
- 9.47 Information on current admission levels, demand for college places and adult learning requirements and demand is not available at present. This data will be requested from the appropriate key partners and used to update and inform this Plan.

<http://www.kcc.ac.uk/courses/>

Local Authority Kensington & Chelsea
16-18 Years Olds Requiring Further Education 353
19+ Year Olds Requiring Adult Learning 1,149
Total Demand 1,502

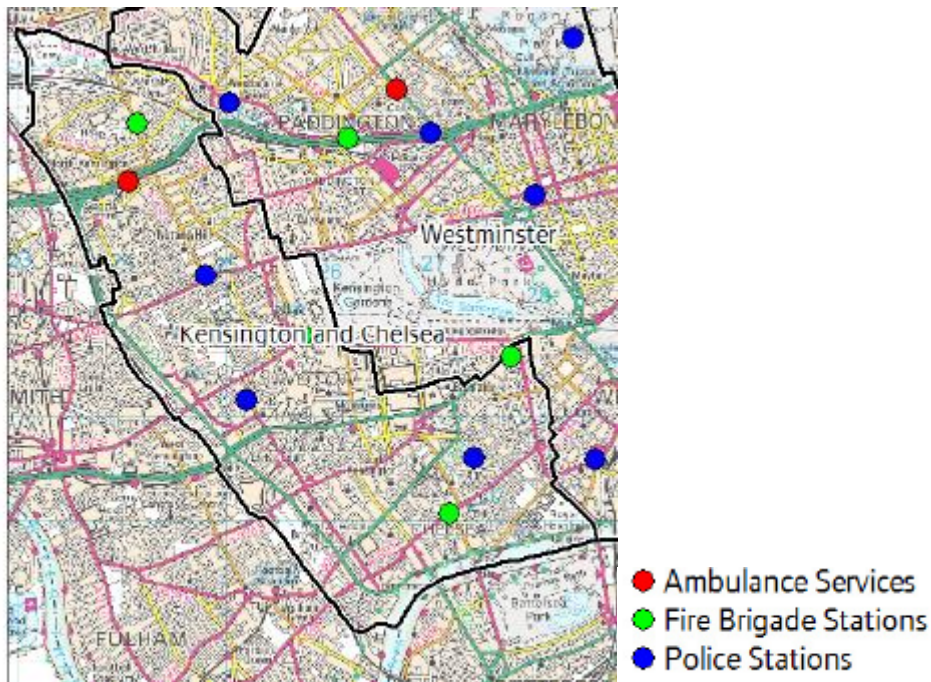
Assessment of Cost of 16-18 and 19-65 Further Education and Adult Learning, 2006 – 2028
Kensington & Chelsea £37,549,128

Childcare

- 9.48 The Childcare Act 2006 fulfils the government's commitment to give every child the best start in life and parents greater choice about how to balance work and life. The Act places duties on local authorities to improve outcomes for young children and reduce inequalities between them. The Act gives local authorities a key role in shaping the childcare market in their area.
- 9.49 An assessment regarding sufficiency has been conducted to determine the supply of childcare and parental demand for childcare to enable the Council to perform its Childcare Duty as outlined in the Act. The total number of children that require consideration within this assessment is 40,993 (39,115 children aged 0 to 14 years and 1,878 young people aged 15 to 17 years with disabilities, Mid Year Estimate 2004 ONS).
- 9.50 Childcare supply and demand analysis for Kensington and Chelsea demonstrates:
- Areas of low supply and high demand where development of childcare is needed and would be sustainable.
 - Areas with low supply and demand where intervention in the market is likely to be required. There are nine areas with low supply of early years care and 16 areas with low supply of out of school care. A total of five areas have been identified as having a high level of demand for these services.
 - Areas with high supply and high demand where the market is most likely to be functioning and market forces will meet supply with little intervention. There are no areas currently within the Borough which have a high demand and high supply of both early years and out of school care.
 - Areas with high supply and low demand are likely to have sufficiency of childcare. There are 18 areas across the Borough with a high level of both care services and therefore demand is low.

Emergency Services

Figure 9.4: Emergency Services in RBKC



Police Service

- 9.51 The Metropolitan Police Service (MPS) is aiming to deliver a more effective and locally focused service. The Metropolitan Police Authority has overall responsibility for all MPS buildings and facilities in London and recognises the vital role the estate plays in supporting the delivery of effective and efficient policing across the capital.
- 9.52 Consultation with the MPA indicated that estimated demand for police officers is based on the number of calls and the number of crimes within a local authority. This is then translated into how many officers would be required to respond to that crime and how many would need to investigate the crime. The number of officers in an area tends to be higher if there is a hospital in the area
- 9.53 The police do not forecast the numbers of officers required in each authority on a population basis. This is too difficult as each authority varies in terms of demographics; they tend to work on assessing in combination the projected population and any large scale development coming forward in the authorities. An assessment is made in terms of the need and level of policing to determine the demand for each ward and therefore within the authorities' boundaries
- 9.54 According to the Metropolitan Police Asset Management Plan (AMP) the estate is ageing, with approximately 40% of the buildings pre-dating 1935 and many being inappropriately located for today's communities. Simply upgrading or renewing individual parts of the estate is not considered to be an option and there is an urgent need for major change.
- 9.55 Kensington and Chelsea has 3 Police stations (see figure 9.4).

Resident Population (2007): 178,600

No of Police Officers: 561

No. of Police Staff: 121

PCSO Strength: 142

- 9.56 These stations are supported by local area help points, where the Police have worked in partnership with local organisations to make use of office space within the local area. These offer the local community a staffed police point at set times of the week within their local area that they can easily access.
- 9.57 Discussions with the RBKC based-police identify a number of infrastructure requirements that may arise from development within strategic sites. Additionally, DDA compliance within certain of the MPS stock in the borough is proving an issue which should be addressed through the planning process.

Fire Service

- 9.58 Kensington and Chelsea has 4 Fire Stations at North Kensington, Kensington, Knightsbridge and Chelsea.
- 9.59 The London Fire Safety Plan 2008 introduced new targets to measure the performance of London Fire crews in getting to emergency incidents. The Brigade measures the percentage of occasions when first and second fire engines arrive at emergency incidents within set time thresholds. These targets apply London-wide. The performance targets aim to get the first fire engine to reach an incident in five minutes on 65% of occasions and within eight minutes on 90% of occasions
- 9.60 The Fire Service states that the current operational capacity of the service is sufficient to cater for Kensington and Chelsea and its potential growth.
- 9.61 Expansion of existing service may be required in the face of population and employment growth; however, current plans rather address the need to rebuild many fire stations as they are ageing and upgrade them to reflect changing models of provision. There are no current plans to build any more fire stations in the Royal Borough or within Central London: there is instead a focus on rebuilding and refurbishing the existing ones.

Ambulance Service

- 9.62 Kensington and Chelsea has one Ambulance Stations: the North Kensington Ambulance Station and is supplemented by stations in neighbouring boroughs (see figure 9.4)
- 9.63 The demand for ambulance provision in the local authorities is forecast using historical incident data. The number of ambulances, the location of hospitals and how well the hospitals are served all have an impact on the performance and delivery of ambulance provision in the local authorities. As it is hard to gather data particularly on London's day time and non

residential population, population is not directly used to forecast future ambulance needs in Central London

- 9.64 Consultation with the London Ambulance Trust has revealed that the current Estates Strategy is being reviewed so there are no formal plans available for ambulance provision and planned investment for the Borough in the foreseeable future.

Community Centres and Voluntary Sector

- 9.65 Community centres in Kensington and Chelsea offer facilities for a wide range of events including parties, corporate and social events, meetings, conferences and sporting activities. These centres play an important part in contributing towards community vibrancy.
- 9.66 The service they provide includes funding advice, advisory support for legal, business and insurance, identification of appropriate communication channels, training and forums to bring groups together. The type of groups they work with include the following, and assessment of needs and requirements forms an important part of the Core Strategy aim of Keeping Life Local:
- Black and Minority Ethnic (BME)
 - Community Action
 - Older People
 - Faith
 - Health
 - Sport
 - Women's Groups
 - Young People

Social Services

- 9.67 The emphasis in social care is on support for the individual rather than physical facilities. Care within the community, fostering and a national policy emphasis on care within the recipient's own home are altering the traditional notions of residential institutions. Public and private sector partnership is increasingly the main delivery mechanism for social care.
- 9.68 There are three main types of social care in Kensington and Chelsea:
- Care for children and families;
 - Care for older people; and
 - Care for vulnerable and disabled people.
- 9.69 In terms of adult social care facilities, this includes day care centres, resource centres (which offer services and activities for adults who have physical or sensory disability, support people who wish to gain paid employment, enter voluntary work or take part in further/higher education and run courses in Business Administration, Computer Use, Music, Drama and Personal Development), and older people's residential care homes.

- 9.70 Kensington and Chelsea has capacity issues relating to residential and nursing home care for people with mental care issues and dementia. Also there are 130 people with learning disabilities living outside of the Borough because of issues with the availability of facilities and support.
- 9.71 More lifetime homes and specialist accommodation for vulnerable people is also required within the Borough. The Council and PCT has undertaken a Joint Strategic Needs Assessment. The findings from this assessment are incorporated within this Plan.
- 9.72 At present there is no detailed information available in regard to children's social services or any related capacity issues. This information will be incorporated into this Plan in due course.

Custodial Services

- 9.73 There are no current prison facilities within the Borough, or any specific proposals or sites identified for new prison development in Kensington and Chelsea. The demand for such facilities will be discussed with MPS and used to update and inform this Plan.

Post Offices

- 9.74 The Government has recognised that fewer people are using Post Office branches, partly because traditional service, including benefit payments are now available in other ways, such as online or directly through banks. It has concluded that the overall size and shape of the network of Post Office branches needs to change.
- 9.75 Post Office Ltd has now put in place a Network Change Programme to implement the measures proposed by the Government. The Programme will involve the compulsory compensated closure of up to 2,500 Post Office branches (out of a Network of 14,000 branches), with the introduction of about 500 service points known as "Outreaches" to mitigate the impact of the proposed closures.
- 9.76 Each Area Plan Proposal is subject to local public consultation to ensure that the views of local people are taken into account before any final decisions are made by Post Office Ltd. The results of the consultation, and the future plans of Post Office will continue to be monitored and incorporated where necessary into the IDP.

Social Housing

- 9.77 There are several Registered Social Landlords (RSLs) operating within Kensington and Chelsea, they include Octavia Housing, Notting Hill and places for people.
- 9.78 The main housing stock holders are Kensington and Chelsea Housing Trust Although asocial housing is provided borough-wide, there are

concentrations of affordable housing over large areas in the north of the Borough,

- 9.79 Details on the level of demand for more social housing are obtained within with Housing Strategy and Kensington and Chelsea's Registered Social Landlords and used to inform the IDP schedule. Additionally, RSLs have certain infrastructure requirements of their own, arising, for example, through the need to meet housing Quality Standards..

10. Environmental & Green Infrastructure

- 10.1 The quality and appearance of the environment in this busy metropolitan area is generally high, but is subject to daily pressure from residents, commuters, local business activity and developers going about their daily business.
- 10.2 All areas are affected by these pressures for development/use to provide new homes, new places of work, and new places for shopping and leisure/entertainment purposes.

Biodiversity and Conservation Areas

Sites of Special Scientific Interest (SSSIs) and SINCs

- 10.3 There are no sites of Special Scientific Interest (SSSI) in Kensington and Chelsea borough. SINCs are important as they support plants and animals that find it more difficult to survive in the wider countryside. Protecting and managing SSSIs is a shared responsibility, and an investment for the benefit of future generations.
- 10.4 There are 3 types of SINC: Sites of Metropolitan Importance, Sites of Borough Importance and Sites of Local Importance. The Sites of Metropolitan Importance are designated by the Mayor of London, and the GLA - they are the most important wildlife sites in London. There are 5 of these sites in Kensington and Chelsea. They are Hyde Park and Kensington Gardens, London's Canals, Holland Park, Kensal Green Cemetery and the River Thames and its tidal tributaries.
- 10.5 Almost 3 fifths of land area in Kensington and Chelsea is Source: Royal Borough of Kensington and Chelsea (2008)

Cemeteries

- 10.6 There are no currently used cemeteries within the Borough, with cemetery provision existing out-of-Borough in Hounslow and Ealing London Boroughs. These have existing capacity within each, though a need to plan for future cemetery requirements will be required within the lifetime of the Core Strategy.

Flooding Prevention

- 10.7 There is insufficient data to enable costs associated with flood defences in the Central London local authorities to be separated from higher level cost information available from Thames Water and the EA. Thames Water plan to invest approximately £2bn in the Thames Tideway storm overflow scheme, which will help to alleviate some of the flood risk due to sewers and surface water.. Although construction of this scheme is set to start in 2009, detailed information and costs are not available. The results of TE 2100 should outline other areas of investment that can be pursued by the local authorities to protect their areas.

- 10.8 Thames Water and the EA are making long term plans to mitigate flood risk through the Thames Tunnel and TE2100 schemes. However there is insufficient data available on these planned investments to enable a detailed assessment of these strategies to manage increased flood risk, or to identify costs specifically associated with Central London.

Flood zones

- 10.9 The London Borough of Kensington and Chelsea has some land within flood zones 2 and 3. Flood zone 2 represents the 1 in 1000 year probability of flooding, and flood zone 3 represents the 1 in 100 year probability of flooding. Approximately 8% of the land is within flood zone 2 and 6% of the land is in flood zone 3.
- 10.10 92% of the properties at risk of flooding, are residential. About 80% are at low risk of flooding due to defence from the Thames Barrier, which became operational in 1982.
- 10.11 Flooding from tidal or fluvial (river) sources has not occurred in Kensington and Chelsea.

Flood warning

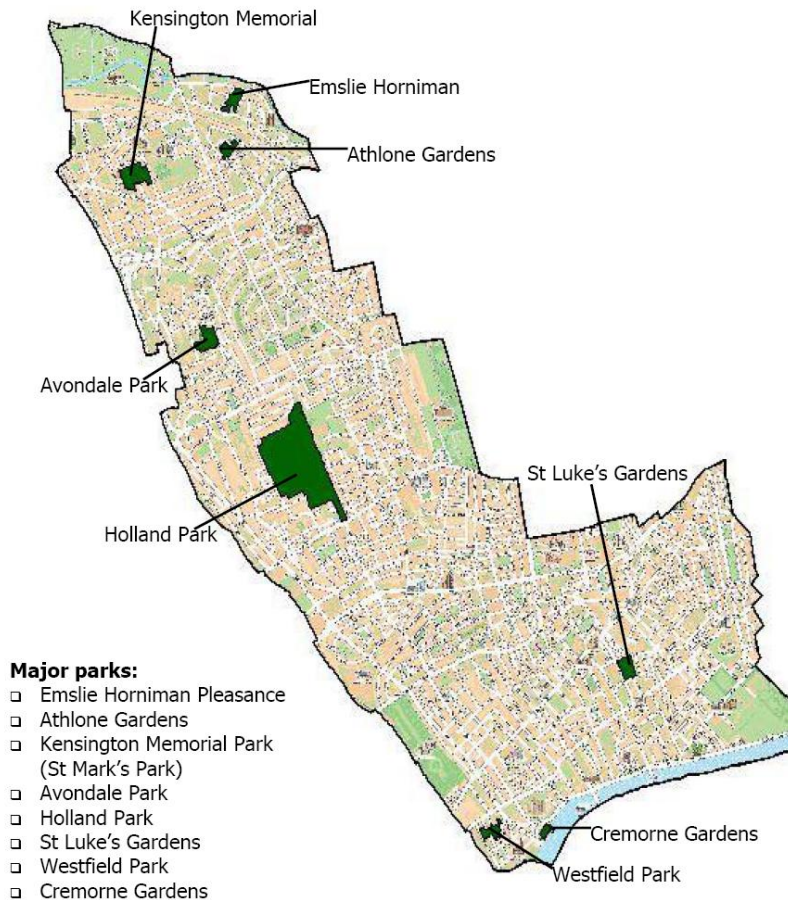
- 10.12 In Kensington and Chelsea 19 people registered to Flood Warnings Direct (FWD). This a very low percentage of properties within the flood zones. This low number can be attributed to the fact that those at tidal risk receive alternative warnings and are protected by the Thames Barrier. The Environment Agency offers the FWD flood warning service, which gives advance warning of flooding via phone, text, email, pager or fax. We would encourage all households at risk of flooding to register. Warnings are also broadcast on local radio, particularly LBC who have agreed to broadcast flood warnings in London.

11. Culture & Leisure

Parks and open spaces

- 11.1 When residents are asked what they think is the best thing about living in the Royal Borough they mention local parks more often than any other aspect of life in the borough. Satisfaction with parks and open spaces in the borough, compared with figures for inner London.
- 11.2 Parks and open spaces are also used the most frequently of all culture, arts and leisure activities and usage is above inner London averages. The Royal Borough has 26 public parks and open spaces. Eight of these, as shown on figure 11.1, are categorized as 'major parks' due to a combination of size and range of facilities. It is these that have been identified for special consideration and investment in the programme and listed below are, in the proposed order of priority.
- 11.3 Ideally, all parks should provide a range of facilities for all users and to be within easy walking distance for all residents throughout the borough. While each park can provide a good range of facilities it is clear that it is not readily achievable for all of our parks to provide all possible facilities
- 11.4 Internal capital bids are made each year to fund the improvements, and additional funding from funding bodies such as the Big Lottery Fund, the Football Association, Sport England is also secured. Funding from such bodies is often dependent upon application, ideally from, or at least in conjunction with, a local voluntary organisation, and so support for Friend's Groups is identified within the Park Plan.
- 11.5 The seven key objectives that have been developed are to:
- Ensure high standards of maintenance and management in the parks,
 - Recognise and develop the parks as a community resource and balance the needs of all sections of the community,
 - Provide space for nature,
 - Provide space for leisure and relaxation,
 - Ensure good design quality and observance of our cultural heritage,
 - Develop the parks as a source of good health and feeling of well-being,
 - Integrate the parks as a part of the local economy

Major parks



Sport and Leisure

11.6 Three main public leisure centres serve the borough; Kensington Leisure Centre, Chelsea Sports Centre and the Westway Sports Centre which is run by the Westway Development Trust. Each of the main parks has a range of sports facilities on offer.

11.7 There is information available at present about the current use and capacity of sport and leisure facilities in the Borough. Demand for these facilities will be assessed and the findings will be incorporated within this Plan in due course.

Outdoor Sports Pitches

11.8 Royal Borough of Kensington and Chelsea is undertaking an audit of these facilities in the Borough. The study will include an assessment of the quality of existing facilities in Kensington and Chelsea, and a review of the

opportunities for the future improvement of these facilities. The intention is that this study will be incorporated within the IDP when it is available.

Play Areas

11.9 The Play Strategy covers children and young people aged 0 to 16 in the Royal Borough, children and young people with disabilities up to the age of 18 and Looked After Children until they are 21 years and sometimes beyond. It also considers transitional issues for older children and links to youth service provision.

11.10 This strategy will support the achievement of a number of aims in the Community Strategy notably those to: increase levels of physical activity in Kensington and Chelsea; invest in resources that provide a focus for local communities; improve the provision of sports and play facilities and ensure that such facilities are accessible to all.

Libraries

11.11 The borough has six public libraries. The role of the library within the community is changing resulting in some of the libraries working jointly with other community services providers and sharing accommodation. This includes leisure centres, schools and Sure Start facilities. The potential to increase the scale of joint working across the Borough will continue to be developed and monitored.

11.12 In terms of the usage, information on current capacity levels and demand for services is not available at present, due to the recent merger. Once this data is available it will be used to update and inform this Plan.

Cultural Facilities

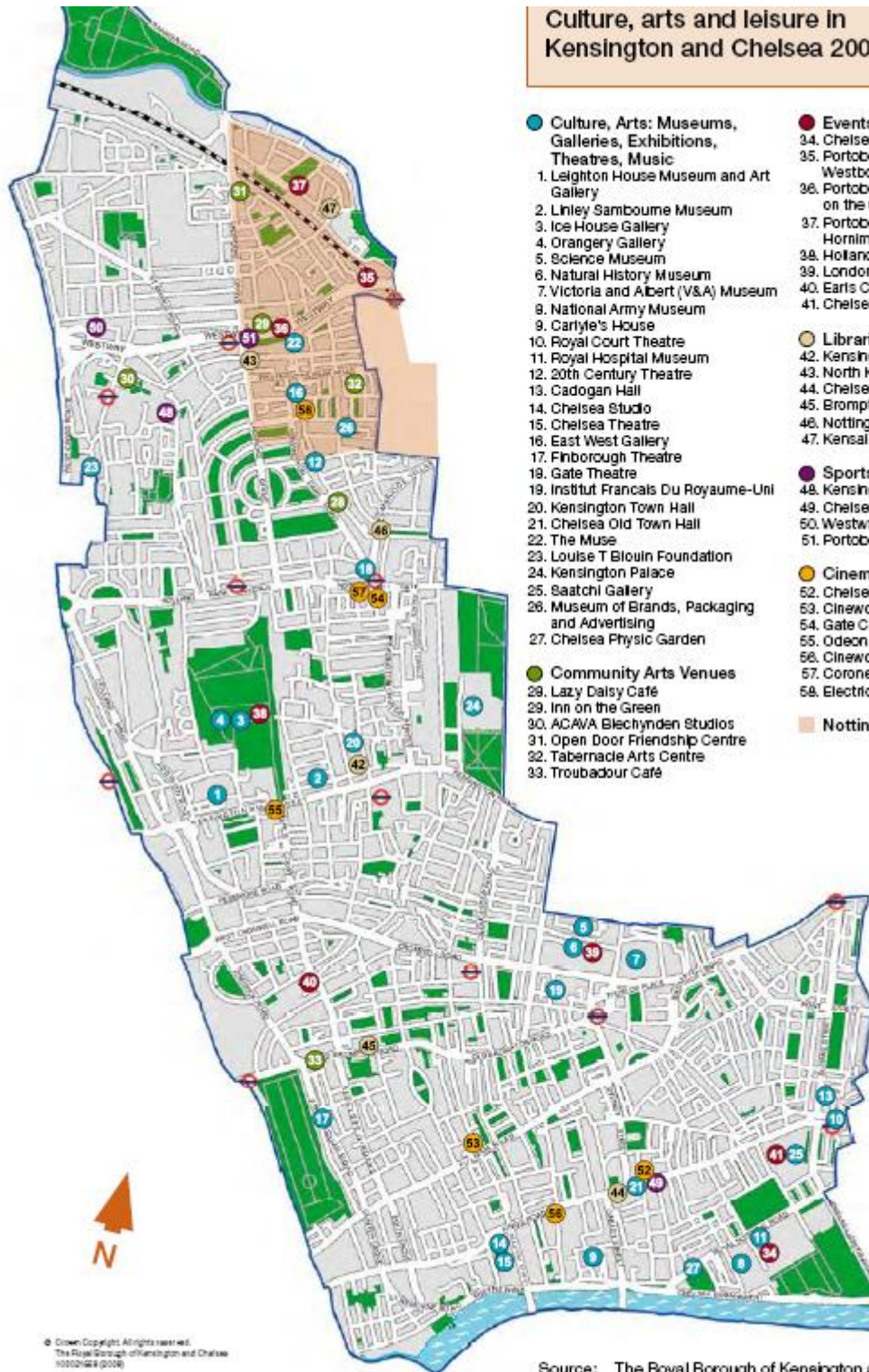
11.13 Culture means different things to different people, but it generally covers a wide range of infrastructure and activities including:

- The performing and visual arts, craft, and fashion;
- Media, film, television, video and language;
- Museums, artefacts, archives and design;
- Libraries, literature, writing and publishing;
- The built heritage, architecture, landscape and archaeology;
- Sports events, facilities and development;
- Parks, open spaces, wildlife habitats, water environment and countryside recreation;
- Children's play, playgrounds and play activities;
- Tourism, festivals and attractions; and
- Informal leisure pursuits

11.14 The borough is home to many museums, galleries, exhibitions and other cultural and artistic institutions and venues. The council manages two small museums; The Leighton House Museum and Art Gallery and the Linley Sambourne Museum. There are three major national museums located in

South Kensington; The Science Museum, The Natural History Museum and the Victoria and Albert Museum. The Saatchi Gallery opened in autumn 2008 in Chelsea and the borough is also home to Kensington Palace and the Royal Court Theatre. See map 11.2 for the location of these and many more museums, galleries, exhibitions, theatres and cultural venues located in the borough as well as community arts venues.

Culture, arts and leisure in Kensington and Chelsea 2008



- **Culture, Arts: Museums, Galleries, Exhibitions, Theatres, Music**
 1. Leighton House Museum and Art Gallery
 2. Linley Samboune Museum
 3. Ice House Gallery
 4. Orangery Gallery
 5. Science Museum
 6. Natural History Museum
 7. Victoria and Albert (V&A) Museum
 8. National Army Museum
 9. Carlyle's House
 10. Royal Court Theatre
 11. Royal Hospital Museum
 12. 20th Century Theatre
 13. Cadogan Hall
 14. Chelsea Studio
 15. Chelsea Theatre
 16. East West Gallery
 17. Finborough Theatre
 19. Gate Theatre
 19. Institut Français Du Royaume-Uni
 20. Kensington Town Hall
 21. Chelsea Old Town Hall
 22. The Muse
 23. Louise T Blouin Foundation
 24. Kensington Palace
 25. Saatchi Gallery
 26. Museum of Brands, Packaging and Advertising
 27. Chelsea Physic Garden
- **Community Arts Venues**
 29. Lazy Daisy Café
 29. Inn on the Green
 30. ACAVA Blechynden Studios
 31. Open Door Friendship Centre
 32. Tabernacle Arts Centre
 33. Troubadour Café
- **Events and Festivals**
 34. Chelsea Flower Show
 35. Portobello Rd Film Festival - Westbourne Studios
 36. Portobello Rd Film Festival - Inn on the Green
 37. Portobello Rd Film Festival - Hornimans
 38. Holland Park Opera and Theatre
 39. London Fashion Week
 40. Earls Court Festival
 41. Chelsea Festival
- **Libraries**
 42. Kensington Library
 43. North Kensington Library
 44. Chelsea Library
 45. Brompton Library
 46. Notting Hill Gate Library
 47. Kensal Library
- **Sports and Leisure**
 48. Kensington Leisure Centre
 49. Chelsea Sports Centre
 50. Westway Sports Centre
 51. Portobello Green Fitness Club
- **Cinemas**
 52. Chelsea Cinema
 53. Cineworld Fulham Road
 54. Gate Cinema
 55. Odeon Kensington High Street
 56. Cineworld Kings Road
 57. Coronet
 58. Electric Cinema
- **Notting Hill Carnival Area**

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The Royal Borough of Kensington and Chelsea
10/02/08 (2008)

Source: The Royal Borough of Kensington and Chelsea, Transport Environment and Leisure Services - Arts and Leisure
Updated: N/A

12. Summary of Findings

- 12.1 The scope of facilities that have been investigated as part of this infrastructure capacity assessment includes the following: Transport; Utilities & Waste; Social Infrastructure; Environmental and Green Infrastructure; and Culture and Leisure. This is to ensure that the IDP embraces all matters necessary for the achievement of LDF policies, proposals and aspirations.
- 12.2 As the local planning authority, the Royal Borough has a key role to play in applying high level policy principles within planning policies and decisions. Where infrastructure provision is concerned, fundamental shifts in approach are required to sustainably deliver growth (for example such as the promotion of alternative energy sources or walking / cycling) and therefore the importance of this role is highlighted.
- 12.3 The strategic infrastructure analysis carried out as part of this study is likely to influence Core Strategy policies and must be carefully considered in the context of required infrastructure needed to support growth and emerging technological improvements.
- 12.4 This study also emphasises the fundamental importance of joint working between authorities and other infrastructure providers and funders so that robust, comprehensive plans for provision and investment can be fed into the Local Development Framework.
- 12.5 This study forms part of evidence base for the Core Strategy, and also highlights appropriate action from others. The current property market and the related impacts on potential private sector contributions to infrastructure delivery illustrates the importance of a sound case for public sector investment.
- 12.6 Similarly, it is important to establish clear priorities for public funds which are available for investment and to consider where responsibilities for the provision of various infrastructure and the fulfilment of various roles should lie. This is especially relevant in the light of the economic downturn and the associated likely drop in developer contributions.
- 12.7 This IDP also aims to identify anticipated planning and funding responsibilities in order to facilitate the forward planning process. Clearer identification of delivery roles will provide more certainty and increase the confidence of both private and public sector partners.
- 12.8 The study identifies relatively little committed funding given the scale of likely required investment in infrastructure. This is partly because many infrastructure providers do not plan beyond two to three years. Concerns about this system have been highlighted throughout.

- 12.9 There are a variety of funding streams for infrastructure including mainstream government funding and public-private partnerships. It is necessary to target investment according to strategic priorities, drawing in kind funding and resources from the voluntary and community and private sector where opportunities arise. If effectively targeted, public sector investment can be a catalyst to regeneration, increasing confidence and bringing land values up to a level whereby private sector investment becomes viable. An example of this would be Governmental investment in expansion of the energy network in Central London up to 2028 to ensure sufficient capacity exists to accommodate forecast demand for development and thus removing at least one barrier for developers.
- 12.10 Infrastructure schedules (annex A) will be a useful means of keeping infrastructure requirements of all providers documented and known. This process will evolve and update over time as answers surrounding funding aligning provision, and exact requirements become more certain.

13. Next Steps

- 13.1 The next stage of the IDP involves an assessment of what infrastructure will be required to support development within the Borough over the Plan period. This will require joint working with key partners including external organisations (as indicated in Annex 3), as the implementation of solutions often falls to an agency other than the local planning authority.
- 13.2 The IDP will aid all parties to identify and prioritise infrastructure provision as part of an integrated approach to planning and infrastructure development. This will ensure services can match demand and that growth is sustainable.
- 13.3 The framework to be produced will give a clear steer on who is responsible for implementing policies and proposals, by when and the resources that will be required. This approach will give greater confidence in the deliverability of the LDF.
- 13.4 Annex 1: the IDP schedule is the prime means of setting out the infrastructure requirements, organisations responsible, funding arrangements and costs. It will be continually reviewed and updated, and reported to the KCP regularly. It is not always possible to identify funders, or answer every question, but those involved will work to continually amend the IDP schedule, as it is a on-going process.
- 13.5 The RBKC Borough Planning & Development department will retain responsibility for the on-going review of the IDP, in partnership with all infrastructure partners and the KCP.
- 13.6 The following schedules will be the primary means of assessing the infrastructure requirements over the life time of the Core Strategy. Those items which have more certainty, because for example, they have committed funding, or are known requirements will form the basis of the IDP schedule, while all items that have a realistic prospect of delivery remain on the schedule in order to find answers when they are available.

ADDITIONAL READING LINKS

Given that it is not the role of this document to restate either National, Regional or local policies and guidance we have provided below addresses for key documents, including the emerging evidence base:

- For Planning Guidance documents please visit:

<http://www.communities.gov.uk/> and

<http://www.pas.gov.uk/pas/core/page.do?pagelid=1>

- For documents relating to the London Plan please visit:

www.london.gov.uk

- For LDF documents including the Core Spatial Strategy and other Supporting evidence, please visit:

www.rbkc.gov.uk

- For the Kensington and Chelsea Community Strategy please visit:

http://www.rbkc.gov.uk/kcpartnership/general/pic_community_ch7achieving.pdf

- For the Kensington and Chelsea Economic Development Plan please contact the Economic Development Team at Kensington and Chelsea Town Hall.

Infrastructure Schedule

Infrastructure Delivery Plan: Infrastructure Schedule

The Infrastructure delivery Plan (IDP) is part of the evidence base informing the preparation of spatial policy in the Local Development Framework (LDF). The LDF will play an important role in delivering the vision set out in the Sustainable Community Strategy for Kensington and Chelsea. The purpose of the IDP is to provide an infrastructure assessment for the Borough. This has included working in partnership with physical, social and green infrastructure providers to establish what infrastructure provision there is in the Borough, and identify any gaps or capacity issues within this existing provision.

The scope of facilities that have been investigated as part of this infrastructure capacity assessment includes the following: Transport; Utilities and Waste; Social infrastructure; Environmental and Green Infrastructure; and Culture and leisure. This is to ensure that the IDP embraces all matters necessary for the achievement of LDF policies, proposals and aspirations.

From this, it can be shown that the following schedules contain key infrastructure requirements within the Borough. The schedules follow best practice in explaining the where, what, why, who, and when of infrastructure requirements.

Where – its location

What – name of the piece of infrastructure, and its type (physical, social or green)

Why – why it is needed, what leads to it being required, e.g. population increase

Lead delivery organisation / management organisation Together these provide the 'who' information.

Cost – is a required component, where it is known. In some cases the cost is to be confirmed and will be updated on an on-going basis.

When – the time scale that the new infrastructure is required.

Sources of funding – This will assist to identify funding gaps need to be addressed.

Any dependencies – critical things needed to deliver the infrastructure.

The preparation of an integrated infrastructure plan is essential for Local Authorities and their partners to fulfil their place shaping role. The revised PPS12 identifies the Core Strategy as the means of 'orchestrating the necessary social, physical and green infrastructure required to ensure that sustainable communities are created'.

To produce an effective infrastructure plan partner organisations need to actively engage in the process. Where a funding gap may exist, it may be possible to seek contributions to pay for the necessary costs associated with the development, including education; employment and training; community and health facilities; open space and play provision; public realm improvements; transport and town centre affordable retail. A proportion of each contribution will be ear-marked for each of these uses and must be spent on those uses.

Annex 1: IDP Schedule

PPS12, paragraph 4.8 states: “The core strategy should be supported by evidence of what physical, social and green infrastructure is needed to enable the amount of development proposed for the area, taking account of its type and distribution. This evidence should cover who will provide the infrastructure and when it will be provided. The core strategy should draw on and in parallel influence any strategies and investment plans of the local authority and other organisations.”

Part i: By Area

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Kensal Gasworks	Crossrail Station (P). Affordable Housing (S). Bridges over the canal and railway (P). Improved transport infrastructure including better bus links (P). Contribution to improved Little Wormwood Scrubs and	Additional infrastructure will be required to enable the development in line with Core Strategy, due to the amount of development possible in the area.	To be formulated as part of development proposals.	RBKC. Greater London Authority (GLA). Ballymore. Sainsbury's. National Grid. British Rail Board (Residuary). Crossrail Limited. Network Rail	Various bodies incl. RBKC	£20m	2011 onwards, completion 2017	Multiple. Developer contributions. Private finance. DfT, TfL.	Full developmen t proceeding and developmen t viability and agreement with Crossrail.

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
	cemetery (G). A CCHP and on-site waste management (G).								
Kensal Gasworks: National Grid requirements	Replacement of gas holders with alternative pressure regulator (P)	To enable development to proceed on the gas holder site, and to release more development land on adjacent site.	Replacement of gasholders with alternative pressure regulator.	National Grid	NG	£12- £13M	TBC	National Grid. Land value.	Full developmen t proceeding

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Kensal Gasworks: Metropolitan Police Service (MPS) requirements	The MPS have advised that significant population gain will create need for additional resources. Possible relocation of existing facilities (P, S)	MPS requirement to be closer to community and to respond within areas needed.	Specific requirements depend upon detail of the developments. The securing of premises within the development would be advantageous to MPS.	MPS	MPS	Standard formula used by MPS will apply.	Within development plan time frame	MPS. S106 contributions.	Nature of development.
Kensal Gasworks: NHS K&C requirements	Additional GP premises may be required in area subject to population change. (S)	There is potential significant population gain in the area which will result in a need for additional facilities.	Premises to be provided or secured. Additional to existing. Costs relate to provision: No. GPs and other health services and premises arrangements e.g. subsidised lease or freehold arrangement.	NHS K&C	NHS K&C	Variable items contained within emerging Estate Strategy	Within development plan timeframe	Developer contribution. NHS K&C	Population numbers within development

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Kensal Gasworks site: Education needs	Education places (new school). (S)	As for health requirements. Additional population requiring additional school places or school.	To be determined by level of development. May not be envisaged, but keep under review.	RBKC	RBKC	Subject to exact develop ment	In line with development plan timeframe.	S106 contributions.	
Kensal Gasworks site: Crossrail Station	Crossrail Station (P)	To assist and facilitate the regeneration of North Kensington, including improving transport accessibility.	Core of station to serve Kensal site. Fit out of station to be funded through other means.	Crossrail Ltd.	Crossrail Ltd	£20m	Keep under review.	TfL. DfT. S106 contributions.	Agreement with Crossrail Ltd
Kensal Area: Canal	Canal environmental improvements. (G)	To assist regeneration of the Kensal area, which will bring more people to the waterside, who will benefit from its environment and towpath, putting additional burden on	Management plan to maintain or fund stretches of canal associated with large developments similar to examples at Paddington Basin, Kings Cross and	RBKC	British Waterways	To be costed. Depend ent on scale of develop ment	Delivery at time of development.	S106.	Developmen t at the location proceeding.

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
		infrastructure and maintenance programme	Limehouse Basin.						

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Wornington Green	<p>Affordable housing (S)</p> <p>Reinstatement of an improved Athlone Gardens and Venture Centre. Play space and play equipment. (S)</p> <p>Improvements to public transport. (P)</p> <p>Community hall/youth facility.(S)</p> <p>Walking, cycling and public realm improvements (G).</p> <p>CCHP (G)</p>	<p>The current housing on the site fails to meet the Decent Homes Standards. Kensington Housing Trust have expressed a strong preference to redevelop the estate, using receipts from private housing to fund the reprovision of the existing social rented housing. This to be subsidised with HCA contribution.</p>	<p>To be formulated as part of development proposals.</p>	<p>RBKC. Kensington Housing Trust, Homes and Communities Agency and potentially a private housing developer.</p>	<p>KHT</p>	<p>Dependent on scale of development</p>	<p>Start on-site planned for 2010/11</p>	<p><u>Homes and Communities Agency, Kensington Housing Trust/Catalyst Housing Group, and potentially a private housing developer.</u></p>	<p>Stock option firings</p>

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Worlington Green: NHS K&C requirements	New premises possibly required. (S)	The three existing practices located in area have additional requirements resulting from development and population growth.	Not yet known.	NHS K&C	NHS K&C	Depend ent on scale	Within development plan time frame	NHS K&C. Developer contributions	The proceeding of developmen t

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Wornington Green: MPS requirements	Police and Safer Neighbourhood team premises (S)	Increased population from development, and an MPS need to be closer to community.	Dependent on population increase and needs.	MPS	MPS	Accordin g to formula.	Within development plan timeframe.	MPS and developer contribution.	
Edenham Site: NHS K&C requirement.	Location of health facility – possible alternative to Wornington Green. (S)	Due to additional requirements arising from development within the area.	Dependent on population increase and needs	NHS K&C	NHS K&C	To be costed.	Within development plan timeframe	NHS K&C and S106 contributions.	Site assembly

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Latimer Area: North Kensington Sports Centre requirement.	Necessary social infrastructure contributions that arise from the development including dual use sports facilities that would be available for the local community and the proposed new school. (S)	To allow local provision of leisure facilities, to meet the need of the local population and increase in population, and allow for dual use.	To be specified	RBKC	RBKC	£8-10M	The first phase of development is expected within 5 years of the plan, 2010 – 2015.	RBKC, Building Schools for the Future, Private investment.	Developmen t proceeding

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Latimer area	New secondary school serving north of the Borough. (S)	To address the existing or projected under-supply of school places.	A new secondary school of the highest academic standard	RBKC - Education	RBKC - Corporate Property. RBKC - Planning & Development	£8M	2011	DfES	
Latimer	Upgrading Hammersmith & City Line (P)	The part of the borough is less well-served by public transport. Upgrading infrastructure is necessary to improve access.	Frequency and stock upgrading. Details are with TfL.	TfL	TfL	£6M	2012	TfL.	
Latimer	Improved and extended bus services (295, 316) bus tunnel and pedestrian link between north of borough and White City. (P, G)	To enhance pedestrian links in north of borough, to assist with green infrastructure delivery and wider regeneration of the area.	Improved and extended bus services (295, 316) bus tunnel and pedestrian link between north of borough and White City.	TfL	TfL		2011	TfL	

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Latimer Area: NHS K&C requirements	Co-location of health premises within development would be advantageous. (S)	Co-location of services will align and improve service provision.	To be decided	NHC K&C	NHS K&C	Variable depending on proceeding and scale of need.	As part of development	NHS K&C. S106 contribution.	

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
The former Commonwealth Institute	Provision of a world class exhibition space. (S). A limited amount of residential or commercial development may be necessary to enable the reuse of the "tent" building.	To enable the re-use of the Commonwealth Institute as a high trip-generating arts and culture use, preferably an "Exhibition" use. If this favoured use does not prove possible, an appropriate alternative would be an assembly and leisure or a theatre use.	As set out in Planning Brief./ SPD	Private	Private/ RBKC	£23M	2010-2015 or before	Private – some enabling development	Appropriate user to be identified.

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Warwick Road (5 sites including 100 West Cromwell Road)	Primary school. (S). Provision of affordable housing as part of residential development on all the sites. (S). Public open space. (G) Community sports hall (S). Crèche, education contributions (S). Landscape/ streetscape improvements to the West Cromwell Road in connection with 100 West Cromwell Road and Warwick Road (G, P).	The sites provide a significant contribution towards addressing the Royal Borough residential quota with an opportunity for a coordinated sustainable development and related infrastructure. The infrastructure identified will contribute to the development of the wider area.	As set out in planning Brief.	Private developers/ site owners.	RBKC/ private. TfL.	Detailed cost of requirements from each site not available.	2010-2015	Private investment, and through S106 contributions.	

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Community facilities in Earl's Court area, provided as part of 100 West Cromwell Road	Community facilities - secured in redevelopment . (S).	The infrastructure identified will assist the objective of keeping life local, allowing meeting the needs of the new population resulting from development.	To be determined in accordance with local need.	RBKC	Service provider. Possibly NHS Kensington & Chelsea	Will be according to need/requirement	Within development timescale.	Developer contributions through S106.	

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Earl's Court	Affordable housing as part of residential requirement. (S)	Residential development will require provision of affordable housing in line with Core Strategy and London Plan policy.	As set out in Affordable Housing Policy	Capital and Counties plc.	RBKC	To be costed.	The site is likely to be redeveloped after the Olympics in 2012. 2015-2025	Private investment	
Earl's Court One-Way System	"Unravelling" the Earl's Court one-way system. (P).	The identified works will improve pedestrian movement and improved town centres at Earl's Court and Fulham Road, and are	New north-south link	RBKC. Capital & Counties plc.	TfL	To be costed.	2012 onwards?	Developer contributions.	TfL agreement

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
		required to assist with development in the area.							
Earl's Court/ Warwick Road area: NHS K&C requirements.	Possible expansion of Abingdon health Centre to accommodate growth. (S)	The major development in the area will require additional facilities to meet the needs of the new population.	Expansion to enable adequate GP provision.	NHS K&C	NHS K&C	Variable	Within the time of development plan	Developer contributions and NHS K&C	
Earl's Court and West Brompton Stations - interchange	Potential for improved public transport interchange. (P)	To enable improved pedestrian movement and enhanced transport accessibility.	Interchange and pedestrian routes between stations.	RBKC/ TfL	TfL	To be costed	2012	TfL/ RBKC and private (developer contributions)	
Bridge over Grand union Canal, close to Trellick Tower	Improved existing bridge; footbridge link connecting Harrow and Golborne Road. (P)	To enable pedestrian ease of movement.	Improvements to existing bridge.	RBKC	RBKC	£0.5M		Developer contributions. TfL	

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Westbourne Park Station	Opening up rear entrance and step-free access. (P)	To enhance safety and pedestrian flow, and regeneration of the wider Golbourne and Trellick area.	Improvements to rear of station, and additional revenue costs associated with the opening.	TfL	TfL	£200k for works. Ongoing mainten ance via commut ed sum for manage ment.	To be identified.	Developer contributions.	
Chelsea Harbour Imperial Wharf Station (in H&F)	New station. (P).	To serve redevelopment both at Imperial Wharf and the wider area, and relieve congestion elsewhere.	Station to open during 2009 on West London Line	TfL, London Overground	TfL	£3M	2009	Developer contributions	None
Lots Road/ World's End Estate	River path provision. (P)	To improve pedestrian links and connectivity of the area, and help development of the area.	Footpath access and provision to be included within development	RBKC	RBKC	Funded as part of develop ment	Within development	Developer contribution	

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Lots Road and World's End	Chelsea- Hackney Line improvements, West London Line/ Chelsea- Hackney Interchange. (P).	To overcome the poor PTAL score and to relieve congestion on District Line.	Improvements from Chelsea- hackney line, including interchange.	TfL	TfL		2027	TfL. Developer Contribution.	
Along the Westway	Lighting and public Art along the Westway, including hanging gardens. (P, G).	To provide certain environmental enhancements in order to meet the vision improving the Westway.	Environmental enhancements	RBKC	RBKC. Highway Agency.	TBC	When development contributions have been secured and accumulated.	Developer contributions.	
Westway: NHS K&C Requirements	Primary Care facilities at Maxilla School Site. (S)	To allow for co- location of services.	Health facility integrated with school proposal.	NHS K&C	NHS K&C	£2.5m	As part of development	NHS K&C	Developmen t proceeding
Westway - Travellers' Site	Improved access and additional pitches. (S).	To ensure adequate provision which is a requirement for the Borough.	Additional pitches to be provided in line with need	RBKC		TBC	In accordance with need.		

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Notting Hill Gate	Enhanced pedestrian way finding to Portobello Market. (P).	To provide good design and clear wayfinding, in order to allow for the improvement and redevelopment of the area.		RBKC	RBKC	TBC			
Notting Hill Gate	The provision of a CCHP network, or similar (G)	To deliver cooling, heat and power in an environmentally friendly way.		RBKC	RBKC/ ESCo	To be costed	Within timeframe of development.	Private.	
Notting Hill Gate	Relocation of Station entrances. (P)	To improve pedestrian flow in the area and contribute towards the vision.	To be specified.	LUL. TfL.	TfL.	TBC		Developer contributions.	Development proceeding
Notting Hill Gate	Affordable shops. (S).	To enhance Notting Hill Gate as a district shopping centre.	Provision of affordable shop units, through space or subsidy of existing.	RBKC	RBKC	Subsidy in region of £25k per shop unit.		Developer contribution (cross subsidisation through S106)	S106 SPD.

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Portobello/ Notting Hill	Affordable shops. (S).	To maintain supply of types of units most suitable for smaller independent retailer, for which there is an identified need.		RBKC	RBKC	Subsidy in region of £25k per unit	2011	Developer contribution (cross subsidisation through S106)	S106 SPD. Core Strat Policy
Portobello/ Notting Hill	Pedestrian improvements. (P)	To provide the improvements to pedestrian environment to ensure it remains attractive, vibrant and legible.	Enhancements to public realm	RBKC	RBKC/ Private	To be costed	Part of major development	Private	
Portobello Road (Market)	Improvements to enliven the area, e.g. electricity points for traders, wayfinding to tube stations etc. (P).	To close the gap between Portobello Road and Golborne Road.	Package of measures to be identified.	RBKC / Market Traders	RBKC	To be costed.	2010 onwards		

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Knightsbridge	Public realm improvements. (P, G).	To allow rebalancing between north and south of the street, to encourage people to stay longer.	Enhancements to public realm	RBKC	RBKC. Private.		2010	Developer contribution (cross subsidisation through S106)	
South Kensington: NHS K&C requirements	Expansion of services required. (S).	To address the identified existing under provision.	To be identified	NHS K&C	NHS K&C	To be costed	2012	NHS K&C and / or developer contribution	

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
South Kensington - Station, Exhibition Road	Public realm improvements and improvements to station.. (P)	To provide shared space at Exhibition Road, improvements to South Kensington Tube, along Thurloe Road, and to give greater pedestrian emphasis.	Works include shared space arrangements, step-free access to station and pedestrian enhancements.	RBKC. City of Westminster.	RBKC/ TfL	£13M	2010	Developer contribution/private	
King's Road and Sloane Square: NHS K&C requirement	Increased medical provision within Hans Town and Stanley wards. (S).	To ensure continued presence across Borough, and to take account of existing lease arrangements		NHS K&C	NHS K&C	To be costed.	2009 onwards	NHS K&C/ Private (developer contribution)	
King's Road and Sloane Square	Affordable shops. (S).	To retain and encourage new independent boutiques in the area.	Affordable shops	RBKC	RBKC	£25k per unit subsidised is estimate of requirements		Cross subsidy through developer contribution	Development and S106 SPD.

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
King's Road and Sloane Square	New Underground Station on King's Road, as part of Chelsea-Hackney Line. (P).	To increase public transport access in the area, and to relieve congestion elsewhere, in line with Core Strategy objective.	Provision of new station on King's road as part of Crossrail 2.	Crossrail 2		To be costed. New line to be ~£1Bn	2026	DfT. Crossrail2	
King's Road and Sloane Square (western part)	New GP Surgery. (S).	To increase or expand provision to meet health needs locally, in line with the 'Keeping Life Local' objective.		NHS K&C	NHS K&C	To be costed	2010	DoH. Developer contribution as applicable.	
King's Road and Sloane Square (western part)	New bank. (S).	To increase or expand provision to meet day-to-day needs locally, in line with the 'Keeping Life Local' objective.		Unknown		To be costed.		Private	

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependenci es
Kensington High Street	Refurbishment of High Street Kensington tube station. (P).	The design of station is such that there is no disabled access, and capacity of platforms is insufficient to accommodate adequate passenger numbers.	Step-free access.	RBKC	TfL	To be costed	2009/10	Developer contributions. private/ TfL	
Brompton Cross Chelsea	Improved access to South Kensington tube. (P)	The pedestrian route between Brompton Cross and underground station is not obvious, and improvements would allow better pedestrian flow.	Improvements to pedestrian footway and to legibility for pedestrian circulation and access.	RBKC	TfL		2009/10	Developer contributions/ private/ TfL	
Fulham Road West	Improvements to shop fronts. (P, G)	To improve appearance of the town centre.		Shop owners	RBKC		2010	Private	

where	What (P)= Physical (S) = Social (G) = Green	Why (see also Infrastructure Delivery Plan for further detail)	specific requirements	lead delivery organisation	management organisation	cost	when	sources of funding	any dependencies
Fulham Road West	New pedestrian and cycle links in Brompton Cemetery. (P, G)	The ownership of cemetery will soon pass to Council, and better use of the space should be made.	Pedestrian and cycle improvements.	RBKC		£200k	2010	TfL/ Developer contribution	

Part ii: Infrastructure Requirements by Provider

Delivery Organisation	Where/ Why	Requirements	Type of Infrastructure:	When	Cost	Sources of Funding
NHS Kensington & Chelsea	Borough wide. Infrastructure requirements will be identified and incorporated within Estate Strategy for provision of GP premises, practice based commissioning, acute and non-acute healthcare, mental health care, and dental.	Requirements are population and health needs based. Needs are demonstrated to government and funding is agreed. NHS K&C have standards of population and distance to GP or health premises to be included within Estate Strategy. There is a move toward hub	Social	2009 onwards	Dependent on Estate Strategy and level of provision.	Government grant funding mainly, plus some revenue funding from any lease or commercial lease.

Delivery Organisation	Where/ Why	Requirements	Type of Infrastructure:	When	Cost	Sources of Funding
		and spoke facilities – where hubs would cater for 10,000 to 20,000 population.				
	Kensal: contingency health related provision will be required if development proceeds.	Dependent on scale of development.	Social	Within the time of development plan.	Dependent on scale of development. At least one premises required with additional health facilities sets cost of £1m to £2M	NHS K&C. Developer contribution.
	Earls Court: Abingdon Health centre may require expansion. Incorporation of health facility within any Tesco development if possible. Substantial new housing development along Warwick Road will require significant health provision.	Premises to be secured within developments where appropriate.	Social	In advance of occupation of developments.	Depending on arrangements over ownership. E.g subsidised lease arrangements can be entered into which have ongoing costs to NHS K&C and/or developer contribution.	Developer contribution/ NHS K&C
	Notting Hill Gate: desire to	GP premises.	Social	To align with		Developer

Delivery Organisation	Where/ Why	Requirements	Type of Infrastructure:	When	Cost	Sources of Funding
	secure premises or facility in an area where space has historically been difficult to obtain Newcombe House, or other redevelopment may be a possibility.			occupancy, and additional requirements based on this.		contribution/ NHS K&C
	Kings Road/ Sloane Square/ Fulham Road West: there is limited GP provision (exception of hospital). Provision within Stanley or Hans Town Wards is required.	GP facility to allow provision in under-provided area.	Social			
Police: Metropolitan Police Service (MPS)	Kensal: Safer Neighbourhood Base. Currently 4 SN Teams based at Lancaster Grove. With Kensal development could spread these and additional capacity required.	Additional SNT premises.	Social	To enable development to be effectively policed.	Standard costings based on numbers within team. Minimum team size is 6, in RBKC SNTs are often 12 members.	MPS. Developer contribution.
	Wornington Green/ or Latimer Area: Possible doubling of population would require additional capacity. Current provision is leasehold and could be secured through additional premises. Note: either here	Additional or combining SNT premises.	Social		As above, costing is dependent on size.	

Delivery Organisation	Where/ Why	Requirements	Type of Infrastructure:	When	Cost	Sources of Funding
	or Latimer, not both.					
	Latimer: see above, Worrington Green requirements. Unlikely to require both.		Social			
	Borough-wide: Possible introduction of custody suites for dedicated custody resource within borough.		Social			
	North of Borough: known improvements to communications required. Certain non-coverage of radio.	Additional cells to allow radio coverage.	Social	Within 2009	Funded within MPS budget. Sites required.	MPS.
RBKC Adult Education	Adult and community learning borough wide, from a range of premises and locations	Future requirements are based on targets at delivering training to adults within the community. It is expected to be possible to meet these requirements from existing locations, but explore possibility of collocation.	Social	Ongoing		LSC.
RBKC – Education (Schools 5-16 and 16-19)	Borough wide coverage of schools (primary, secondary and nursery, plus specialist schools and 16-19 provision).	An additional 240 children requires one additional primary school. Secondary school requirement identified in north of Borough.	Social	To meet projected demand arising from known population changes. E.g secondary	£3m (Primary) £20M (Secondary)	DCSF. BSF. Primary Capital Programme.

Delivery Organisation	Where/ Why	Requirements	Type of Infrastructure:	When	Cost	Sources of Funding
				school in north of borough by 2011.		
RBKC – Community Learning (5-13 + extended schools)	Borough wide requirements for access to play, child care and extended use of schools.	Additional facilities are itemised as borough wide. For example improved or extended access to existing provision at Flashpoint Venture Centre, and out-of Borough Little Wormwood Scrubs. These requirements are based largely on analysis of population requirements and need. Therefore, where new population arises, new facilities or extended facilities are required.	Social			Some S106 contributions. Play Pathfinder status. Extended schools capital.
RBKC – Early Years (0-4)	Children Centres are based across the borough sometimes within schools. Future infrastructure requirements are based on need, and arising or changing population.	Continued provision of Children’s Centres, and expansion where required due to population.	Social	2010 onwards	Dependent on numbers..	DCSF. Children’s Centres monies . Some Private Voluntary monies.
RBKC – Parks	Borough wide. Parks Strategy includes information on enhancements on a rolling programme.	Requirement for open space, or enhancements to existing open space to adhere to various standards: Park Standards within Park Strategy and the ParkScope	Green	ParkScope requirements.		Annual updates of 3 year programme from capital. Some S106 monies. Some play Pathfinder monies.

Delivery Organisation	Where/ Why	Requirements	Type of Infrastructure:	When	Cost	Sources of Funding
		requirements.				
RBKC - Culture	Borough-wide provision: arts, libraries, museums	Stem from Cultural Strategy.	Social	Ongoing	According to need and provision.	Various: Heritage Lottery Fund, LDA, GLA, Art Council, NHHG.
RBKC – Leisure/ Sports	Borough wide provision of sports centres, and adult sport development.	To adhere to Sport England requirements and to provide balanced services and activities.	Social/ Green	Ongoing	£3.6M costs for planned maintenance of sports centres for 2007-2011	Capital programme. Some S106 funding.
RBKC – Environmental Health (Air Quality/ Contaminated Land)	Borough wide: the whole borough is designated as an Air Quality Action Area..	Some infrastructure requirements to meet aims of AQAP. For example, monitoring stations.	Green	2010 onwards	EH to provide.	Capital Strategy Programme
National Grid	Replacement gas holders at Kensal site required to enable development and increase capacity.	See Kensal table (i) Alternative technology to allow the site once decontaminated to be released for development.	Physical	See Kensal in table (i)	£12-£13M	Private.
RBKC – TELS Climate Change Strategy	Borough wide. Infrastructure may be required to assist in meeting government climate change targets.	Set down in national indicators and legislation for targets on emissions and carbon reduction.	Green	2009		Capital Strategy Programme. Other ad hoc bids.
Thames Water	Counters Creek: Sewer upgrading to relieve existing and overcome localised surface flooding	Upgrading of Counter's Creek which provides storm and waste water drainage from north London through RBKC.	Physical	2010	£300M (whole life costing)	TWU.

Delivery Organisation	Where/ Why	Requirements	Type of Infrastructure:	When	Cost	Sources of Funding
	problems.				£32M for works planning and development.	
Thames Water	<p>Thames Tunnel</p> <p>The Thames Tunnel will capture the flows of storm sewage from 34 sewer overflow points along the River Thames.</p>	<p>The tunnel will run approximately 32 kilometres (20 miles) through the heart of London, and up to 75 metres beneath the River Thames, broadly following the path of the river.</p> <p>Its precise route, including the starting point in the west of the city, has still to be determined, but will end at Beckton Sewage Treatment Works.</p>	Physical	2011 Planning application. Construction 2012 to 2020.	£2.2Bn	Private.
RBKC - Housing	Borough wide mainly within RBKC estate. Infrastructure to support Housing Stock Options	Aligned to Housing Stock Options and Housing Strategy.	Social	2014-2020	Costs to be identified.	Housing revenue Account. Homes & Community Agency.. Sales and subsidy of capital receipts.
EDF/ National Grid	<p>Electricity Tunnel</p> <p>One of four National Grid deep tunnels. The work is vital to meet increasing demand in the capital.</p>	<p>See Table (i)</p> <p>The work is vital to meet increasing demand in the capital. Additional cables can be installed in the tunnels if required in the future</p>	Physical	2010-2016	£127M (total project value = £600m)	Private.

Delivery Organisation	Where/ Why	Requirements	Type of Infrastructure:	When	Cost	Sources of Funding
	<p>Additional cables can be installed in the tunnels if required in the future.</p> <p>A four-metre diameter tunnel, 12.4km in length, will be bored at a depth ranging from 20 to 60m below ground through the borough from Kensal.</p>	<p>Planned for construction between 2009 and 2016 and these will house 400kv cables to secure electricity supplies to London.</p> <p>One of the four planned tunnels will be built between Wimbledon and Kensal Green.</p>				

Annex 2: Core Strategy Policy Infrastructure Delivery

Core Strategy Policy Direction		Link to corporate working and delivery mechanisms		
	Core Strategy Strategic Objective	Tactical Element	Community Strategy Theme	Example Infrastructure Requirement
2	Keeping Life Local	Social and community uses	<ul style="list-style-type: none"> Environment And Transport Health And Social Care Community, Equality And Inclusivity 	Contributions towards new or existing social and community facilities, e.g. health and education. Public Transport and other sustainable transport modes, e.g. walking or cycling, either as financial contribution, or as measures designed in to the scheme.
2	Keeping Life Local	Build a new secondary school in North Kensington	<ul style="list-style-type: none"> Health And Social Care Community, Equality And Inclusivity Achieving Potential 	Contributions towards school places sought from new residential developments, based on new child yield arising from the development. Provision may be a financial contribution or provision in kind.
2	Keeping Life Local	Social and Community uses. Neighbourhood facilities	<ul style="list-style-type: none"> Health And Social Care Community, Equality And Inclusivity 	Securing planning obligations which deliver contributions towards Health facilities either as a financial contribution for increased provision, or provision in kind.
2	Keeping Life Local	Social and Community Uses. Neighbourhood facilities	<ul style="list-style-type: none"> Culture, Arts And Leisure Community, Equality And Inclusivity 	Securing planning obligations which deliver contributions towards Library facilities either as a financial contribution for increased provision, or provision in kind.
2	Keeping Life Local	Social and Community Uses. Neighbourhood facilities	<ul style="list-style-type: none"> Culture, Arts And Leisure Health And Social Care 	Securing planning obligations which deliver contributions towards sport and leisure facilities either as a

<u>Core Strategy Policy Direction</u>		<u>Link to corporate working and delivery mechanisms</u>		
	<u>Core Strategy Strategic Objective</u>	<u>Tactical Element</u>	<u>Community Strategy Theme</u>	<u>Example Infrastructure Requirement</u>
				financial contribution for increased provision, or provision in kind.
2	Keeping Life Local	Walkable neighbourhoods: Shopping facilities	<ul style="list-style-type: none"> Community, Equality And Inclusivity 	Securing planning obligations which deliver contributions towards community facilities either as a financial contribution for increased provision, or provision in kind.
2	Keeping Life Local	Social and community uses – local parks.	<ul style="list-style-type: none"> Health And Social Care 	Securing planning obligations which deliver contributions towards parks and open space either as a financial contribution for increased provision, or provision in kind.
3	Fostering Vitality	Support for new cultural institutions across the borough.	<ul style="list-style-type: none"> Health And Social Care Community, Equality And Inclusivity Achieving Potential Work And Business Culture, Arts And Leisure 	Securing contributions towards facilities that allow for cultural use, or contributions towards this. Possibly through provision of subsidised or premises.
3	Fostering Vitality	Protection of employment zones.	<ul style="list-style-type: none"> Community, Equality And Inclusivity Achieving Potential Work And Business 	Securing Employment Premises and Employment And Training Contributions which allow for local people to access the range of jobs being created.
3	Fostering Vitality	Supporting the expansion of retail floor space where this helps maintain the vitality of a centre.	<ul style="list-style-type: none"> Culture, Arts And Leisure Community, Equality And Inclusivity Achieving Potential 	Securing improvements to Town Centres, and delivery of affordable shops, either through subsidy, or provision of units within

Core Strategy Policy Direction		Link to corporate working and delivery mechanisms	
Core Strategy Strategic Objective	Tactical Element	Community Strategy Theme	Example Infrastructure Requirement
	Mix of unit sizes and affordable shops.	<ul style="list-style-type: none"> • Work And Business 	developments.
4 Better Travel Choices	Improving alternatives to car use.	<ul style="list-style-type: none"> • Environment And Transport • Health And Social Care • Community, Equality And Inclusivity 	Contributions towards Public Transport and other sustainable transport modes, e.g. walking or cycling, either as financial contribution, or as measures designed in to the scheme.
4 Better Travel Choices	New rail infrastructure: Crossrail, West London Line and protection of Chelsea-Hackney line.	<ul style="list-style-type: none"> • Environment And Transport 	Seek necessary contributions towards Highways & Traffic works through S106 or S278 agreements.
4 Better Travel Choices	Restrictions on new additional residential development parking.	<ul style="list-style-type: none"> • Environment and transport 	Secure through planning obligations the provision of car club space, and the restriction of new parking spaces within the borough-wide parking permits.
4 Better Travel Choices	Securing effective travel plans	<ul style="list-style-type: none"> • Environment And Transport 	Through securing Travel Plans and Car Clubs in new developments using, where appropriate, planning obligations.
5 Engaging Public Realm	Parks, gardens and open spaces: designed and landscaped to a high standard. New developments to allow for a range of activities in outside spaces.	<ul style="list-style-type: none"> • Culture, Arts And Leisure • Health And Social Care 	Securing planning obligations which enhance the Public Realm (specifically Parks And Open Spaces). Either through contribution or provision in kind.
5 Engaging Public Realm	Improved access. New public art required as part of all medium and large scale developments.	<ul style="list-style-type: none"> • Culture, Arts And Leisure 	Securing the provision of Public Art within new developments, either in kind or work to undertake

Core Strategy Policy Direction		Link to corporate working and delivery mechanisms		
	Core Strategy Strategic Objective	Tactical Element	Community Strategy Theme	Example Infrastructure Requirement
5	Engaging Public Realm	Require on-site servicing space and service management planning.	<ul style="list-style-type: none"> Environment And Transport 	commissioning. Financial contribution may be sought with art delivered separately to improve the public realm. Securing obligations delivering the necessary Highways & Traffic Works.
5	Engaging Public Realm	Increase opportunity for overlooking the street and informal surveillance.	<ul style="list-style-type: none"> Safer Communities Community, Equality And Inclusivity 	Community Safety measures can be secured through planning obligations. Preferably designed into the scheme, where they are not, but the development is acceptable in other respects, planning obligations could secure contributions towards community safety.
5	Engaging Public Realm	Improvements to existing street network – creation of links and removal of barriers.	<ul style="list-style-type: none"> Culture, Arts And Leisure Safer Communities Environment And Transport 	Use of planning obligations to enhance the Public Realm e.g. through Streetscape contribution towards upgrading the area.
6	Renewing The Legacy	Developments must preserve historic integrity of listed buildings and preserve or restore original internal and external architectural features.	<ul style="list-style-type: none"> Leisure Safer Communities Environment And Transport 	Use of planning obligations to enhance the Public Realm e.g. through contribution towards enhancements to listed buildings.
7	Diversity Of Housing	Provision of residential amenity space should be maximised.	<ul style="list-style-type: none"> Homes And Housing Community, Equality And Inclusivity 	Requiring the provision of amenity space, on-site. Where a deficiency may arise, and the development is acceptable in other respects, it could be possible to secure a contribution to improved and increased amenity elsewhere, but

Core Strategy Policy Direction		Link to corporate working and delivery mechanisms	
Core Strategy Strategic Objective	Tactical Element	Community Strategy Theme	Example Infrastructure Requirement
7 Diversity Of Housing	New housing to provide a mix of types, tenures and sizes, including wheelchair accessibility, housing for older people and affordable housing.	<ul style="list-style-type: none"> Homes And Housing Community, Equality And Inclusivity 	within the vicinity or the development. Securing Affordable Housing, and other housing types, through planning obligations.
8 Respecting Environmental Limits	Require a Code for Sustainable Homes/BREEAM Assessment demonstrating that new buildings meet required standards.	<ul style="list-style-type: none"> Environment And Transport 	Use of planning obligations to secure Energy Efficiency measures, or contributions towards energy efficiency measures in the wider area.
8 Respecting Environmental Limits	Require developments to provide renewable energy, and to provide energy and heat from development to nearby community facilities.	<ul style="list-style-type: none"> Environment And Transport 	Use of planning obligations to secure renewable energy measures, or contributions towards measures in the wider area.
8 Respecting Environmental Limits	Require development to incorporate SUDS or other measures to reduce speed of water run off.	<ul style="list-style-type: none"> Environment And Transport Safer Communities 	Using planning obligations to ensure satisfactory flood alleviation measures are provided.
8 Respecting Environmental Limits	Reduction in CO2 emissions required, and improved air quality measures through implementation of the Air Quality Action plan.	<ul style="list-style-type: none"> Environment And Transport Health And Social Care 	Securing contributions towards Air Quality, and the air quality action plan measures, and other measures such as the use of Travel Plans, Car Clubs and Parking Restrictions.

Annex 3 Key Partners Involved

Kensington and Chelsea Partnership
RBKC internal departments
Ambulance Service
Fire Service
Metropolitan Police
EDF
National Grid
BT (Telecoms)
RSLs – Octavia Housing
Thames Water
NHS Kensington & Chelsea
Transport for London
Environment Agency