

Local Development Framework

Infrastructure Delivery Plan

November 2011

Contents

1	Introduction	4
1.1	What is the Infrastructure Delivery Plan?	4
1.2	What is the policy framework for infrastructure planning?	4
1.3	What is the context in which Barnet’s infrastructure planning and identification of requirements has taken place?	5
1.4	What is the definition of required infrastructure?	7
1.5	What is the format of the Infrastructure Delivery Plan?	8
2	Physical Infrastructure	11
2.1	Movement: Transport	11
2.2	Movement: Highways Networks	11
2.3	Movement: Parking	12
2.4	Movement: Footways and Cycleways	13
2.5	Utilities: Electricity	13
2.6	Utilities: Gas	14
2.7	Utilities: Water Supply	14
2.8	Utilities: Waste Water	15
2.9	Utilities: Telecommunications	16
2.10	Physical Infrastructure – Next Steps	17
3	Social Infrastructure	18
3.1	Education: Tertiary	18
3.2	Education: Secondary	18
3.3	Education: Primary	19
3.4	Education: Early Years	21
3.5	Education: Special Educational Needs.....	21
3.6	Healthcare: Secondary	21
3.7	Healthcare: Primary.....	21
3.8	Healthcare: Social Care	22
3.9	Open Spaces, Sport and Leisure: Sports Centres	23
3.10	Open Spaces, Sport and Leisure: Sports Pitches	23
3.11	Open Spaces, Sport and Leisure: Swimming Pools.....	23
3.12	Open Spaces, Sport and Leisure: Play Facilities	24
3.13	Open Spaces, Sport and Leisure: Hard Landscaping	24
3.14	Open Spaces, Sport and Leisure: Parks	24
3.15	Open Spaces, Sport and Leisure: Natural Open Spaces and Green Chains	25
3.16	Open Spaces, Sport and Leisure: Biodiversity	26
3.17	Community Facilities: Libraries.....	26
3.18	Specialised Community Facilities: Uses with fixed equipment requirements such as arts, performance and youth spaces.....	27
3.19	Community Facilities: Shared Community Centres	27
3.20	Community Facilities: Community Offices.....	28
3.21	Community Facilities: Other	29
3.22	Emergency Services: London Fire and Emergency Planning Authority (LEFPA).....	29

3.23	Emergency Services: Police and Justice Facilities.....	29
3.24	Emergency Services: London Ambulance Service.....	30
3.25	Social Infrastructure – Next Steps.....	30
4	Green Infrastructure.....	31
4.1	Energy: Decentralised Energy.....	31
4.2	Energy: Energy Efficiency	31
4.3	Waste	32
4.4	Flooding.....	32
4.5	Green Infrastructure – Next Steps.....	33
5	Costing Required Infrastructure	34
5.1	The infrastructure costing process	34
5.2	The total cost of required infrastructure in Barnet	34
5.3	Ensuring 2011-16 infrastructure is deliverable	35
6	Funding Mechanisms.....	40
6.1	The Funding Environment	40
6.2	Planning Obligations	40
6.3	Community Infrastructure Levy.....	41
6.4	The Infrastructure Reserve.....	42
6.5	Grants and Contributions	42
6.6	Leveraged Finance.....	43
6.7	Delivering projects.....	47
7	Conclusions.....	48
7.1	Collaboration	48
7.2	Capital Programming for required infrastructure	48
7.3	The Infrastructure Funding Gap	48
7.4	Ensuring that required infrastructure is deliverable	49
	Appendix 1 - The Infrastructure Delivery Plan	50

1 Introduction

1.1 What is the Infrastructure Delivery Plan?

- 1.1.1 This Infrastructure Delivery Plan (IDP) responds to demographic change in Barnet up to 2026. The population is expected to increase by 14% in the next 15 years. The IDP sets out the infrastructure required to support this growth and identifies the funding sources to enable its delivery.
- 1.1.2 The IDP forms part of Barnet's Local Development Framework evidence base, the key document of which is the Core Strategy. The Core Strategy is a 15 year plan for change covering the period 2011-2026 and it is constructed upon various needs assessments and reports that inform and evidence the Council's chosen approach to 'place shaping'.
- 1.1.3 The Core Strategy sets out the vision, objectives and strategic policies that will guide change throughout the borough; the IDP provides the evidence to underpin Chapter 20 - 'Delivering the Core Strategy', and this report explains the data-gathering and categorisation processes for information contained within the IDP, as well as providing a summary of that information.

1.2 What is the policy framework for infrastructure planning?

- 1.2.1 The statutory responsibility for Infrastructure Planning and its importance in relation to the development of the Core Strategy is discussed in Planning Policy Statement 12 (PPS12):

"The outcome of the infrastructure planning process should inform the core strategy and should be part of a robust evidence base."

"Adequate infrastructure planning is a key test of soundness for Core Strategies. The Council... has a statutory duty to produce an LDF Core Strategy and therefore a statutory duty to establish a programme of infrastructure investment and delivery"

- 1.2.2 The nature of the document and its core requirements are also set out:

"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.... Good infrastructure planning considers the infrastructure required to support development, costs, sources of funding, timescales for delivery and gaps in funding. This allows for the identified infrastructure to be prioritised in discussions with key local partners. The infrastructure planning process should identify, as far as possible:

- *infrastructure needs and costs;*
- *phasing of development;*
- *funding sources; and*
- *responsibilities for delivery.*

- 1.2.3 The development of local Infrastructure Planning is required to be a process of inter-organisational co-operation and partnership to develop a shared understanding of the requirements and ensure alignment of capital planning:

"The core strategy should draw on and in parallel influence any strategies and investment plans of the local authority and other organisations... It will greatly

assist the overall planning process for all participants if the agencies responsible for infrastructure delivery and the local authority producing the core strategy were to align their planning processes”

Local authorities should undertake timely, effective and conclusive discussion with key infrastructure providers when preparing a core strategy. Key infrastructure stakeholders are encouraged to engage in such discussions and to reflect the core strategy within their own future planning.

- 1.2.4 Lastly the limitations of co-ordination and alignment of forward-planning processes are recognised and the relevant level of mitigation set out:

However the Government recognises that the budgeting processes of different agencies may mean that less information may be available when the core strategy is being prepared than would be ideal. It is important therefore that the core strategy makes proper provision for such uncertainty and does not place undue reliance on critical elements of infrastructure whose funding is unknown. The test should be whether there is a reasonable prospect of provision. Contingency planning – showing how the objectives will be achieved under different scenarios – may be necessary in circumstances where provision is uncertain.

- 1.2.5 The Government proposes to replace planning policy statements (including PPS12) and guidance with a National Planning Policy Framework (NPPF). The draft NPPF published in July 2011 states that local planning authorities should work with other authorities and providers to:

- *Assess the quality and capacity of transport, water, energy, telecommunications, utilities, health and social care, waste and flood defence infrastructure and its ability to meet forecast demands; and*
- *Take account of the need for nationally significant infrastructure within their areas.*

1.3 What is the context in which Barnet’s infrastructure planning and identification of requirements has taken place?

- 1.3.1 Barnet Council’s Cabinet Resources Committee first adopted the IDP on 19 October 2010 as a stand-alone table of identified infrastructure; this was the most complete understanding of local capital investment requirements to date and provided a picture of the existing level of infrastructure forward-planning across the Local Strategic Partnership and other local/regional partners.

- 1.3.2 Since then, the Comprehensive Spending Review 2010 was completed and intensive work has begun for many partners to bring together information and requirements from borough wide needs assessments, capital investment plans linked to specific growth areas, changes to capital funding mechanisms and the total funding available, as well as changes in future facilities requirements linked to planned radical changes in local service delivery.

- 1.3.3 The long term impacts of the economic slowdown have already delivered cuts to capital funding from Government that are expected to continue to influence at least the first half of the 15-year plan period. At the same time, new opportunities are opening up to explore the potential for co-location of services and the joining-up of capital investment programmes to find shared cost-savings that seemed almost impossible just over a year ago.

1.3.4 The One Barnet approach developed by the council in conjunction with its partners defines the shared values, and outcomes all parties are working towards to make the borough an even better place to live. The shared aspiration is that all Barnet's public services will continue to work together to achieve the strategic ambitions for the borough and residents by:

- *focusing relentlessly on efficiency to ensure every public pound is spent wisely*
- *redefining a new relationship with citizens so they can work with us as part of a 'Big Society' taking responsibility where they can*
- *working seamlessly with partners to develop a new public sector approach which will require us to better co-ordinate our work and exploit the efficiencies and benefits of joint working.*

1.3.5 The One Barnet approach, as set out in figure 1, provides a mechanism for joining together the objectives of the One Barnet Sustainable Community Strategy and the Council's own corporate priorities, setting both the direction for and a prism through which to view how the infrastructure planning in this IDP has taken place and will continue to be developed.



Figure 1 – The One Barnet approach

1.3.6 Paragraph 5.1.3. of the Core Strategy identifies the long term impact of the global recession on public services as a particular challenge that has also influenced the ability and capacity of partners to engage in forward-planning for capital investment beyond the short-medium term. Therefore the extent of forward-planning within this document varies by type of infrastructure, and has focused on identifying only the 'critical' and 'necessary' projects, and only providing cost estimates for those projects relating to the first 5 years of the plan period.

1.3.7 Spatial planning and preparation for infrastructure delivery has taken place in the context of both the London Plan as well as local consideration of:

- *socio-economic profiles and areas of deprivation,*
- *the current and longer-term economic context*
- *geographical location, urban structure and accessibility*

- 1.3.8 The high level of projected growth shown within a number of specific areas has strongly influenced how and where infrastructure such as open spaces, schools, leisure facilities and health centres is to be delivered. But changing demographics and historic areas of unmet need for improved or additional infrastructure have also needed to be accounted for within forward-planning for facilities and services. The IDP therefore provides a current snap-shot of required infrastructure, but as a living document will also act as the framework through which ongoing amendments can and will be recorded.
- 1.3.9 A key step that will enable this ongoing amendment and improvement of infrastructure planning is that the IDP is in the process of being used to develop a 5-year Capital Programme for all investment that will be taking place across public services in Barnet. This new form of capital programme will continue to be held and monitored by Barnet Council, but will incorporate all required infrastructure identified in the IDP even if this is to be fully funded and delivered by partner organisations. This new capital programme will also distinguish between capital investment linked to housing delivery, population change and ongoing maintenance, to ensure that funding linked to delivery of planned growth is focused on supporting that growth.

1.4 What is the definition of required infrastructure?

- 1.4.1 Infrastructure has a very broad definition, and can cover anything from large scale transport schemes down to streetscape improvements, from river course restoration to repair of or annual cutting of footpaths through fields. Three tests have therefore been followed to manage the type, nature and totality of recognised 'required infrastructure' schemes:
- *Is it linked to population change in terms of demographics, natural increase or housing delivery?*
 - *Is it linked to a substantial increase in retail or commercial floorspace?*
 - *Does it enable delivery of the Core Strategy objectives and policies by securing sustainable development in LBB?*
- 1.4.2 Where planned infrastructure delivery is mainly linked to the need to address financial challenges, but also deliver against at least one of the above criteria, the IDP has still incorporated this infrastructure requirement.
- 1.4.3 The IDP follows the PPS12 approach to dividing infrastructure into Physical, Social and Green types of infrastructure:
- (a) *Physical:* Infrastructure linked to physical movement, either of people themselves or of the traditional inanimate services people require such as electricity, gas, water, sewage.
 - (b) *Social:* Infrastructure linked to provision of services that meet the social or emotional needs of people such as for health and wellbeing, learning, safety, recreation or gathering.
 - (c) *Green:* Infrastructure linked to the need to make environmentally sustainable places to live and ensure that the impact on the environment from new development and population change is minimised. This category considers the:
 - (i) Resource inputs and outputs from human consumption
 - (ii) Mitigation of risks linked to climate change

1.4.4 This report has been structured around the three types of infrastructure, but at all times it will be important to keep in mind any inter-relationships between types of infrastructure, such as the upgrade of gas and electricity pipelines and the delivery of new decentralised energy networks, the location of sports pitches and the provision of associated clubhouses / pavilions with changing facilities, and how parking restrictions or traffic management and safety measures impact on the operation of education or healthcare facilities.

1.4.5 Within the IDP all infrastructure has been prioritised according to the tests, in particular the role of infrastructure in mitigating for the impacts of population change on the communities of Barnet:

- (a) *Critical:* Infrastructure that is proposed to mitigate for:
 - (i) The combined effect of multiple developments and/or other changes that would have a significant impact on a borough wide scale, or
 - (ii) The singular or combined effect of change for which the impacts inter-relate between regeneration areas, town centres and/or other growth areas and would significantly impact on service provision or the ability for a partner to meet statutory requirements
- (b) *Necessary:* Infrastructure that is proposed to mitigate for:
 - (i) The effect of a development and/or other change that would have a significant local impact or a substantial impact on a borough wide scale, or
 - (ii) The effect of change linked to a single regeneration area, town centre or other growth area that would substantially impact on service provision or the ability for a partner to meet statutory requirements
- (c) *Preferred:* Infrastructure that will help to ensure that development or change across the borough is sustainable.

The non delivery of any one such piece of infrastructure will not pose a meaningful risk to the ability to deliver new development or manage the process of population change, but the combined effect of failing to deliver most of the infrastructure identified as 'preferred' would lead to a noticeable sense that change in LBB was impacting on people's quality of life and the ability of local community services to continue being delivered.

1.5 What is the format of the Infrastructure Delivery Plan?

1.5.1 The Infrastructure Delivery Plan has been structured in the form of a table Appendix 1, providing an item by item list of projects that are planned to contribute towards sustainable development in Barnet. The Physical, Social and Green sections are each divided into primary categories for the broad purpose of the infrastructure, then each of these comprise of secondary categories comprised of typologies of projects as shown in Figure 2.

Figure 2 – Table showing primary and secondary infrastructure categorisation

Physical infrastructure	
Movement and Connectivity	Transport, Highways, Parking, Cycling and Pedestrians
Utilities	Electricity, Gas , Water and Telecoms
Social infrastructure	
Education	Further and Higher Education, Secondary, Primary, Early Years and Special needs,
Health	Secondary Care, Community Hospitals, Primary Care Health Centres, GP Practices, Social Care
Open Spaces, Sport and Leisure	Sports Centres, Sports Pitches, Swimming Pools, Play Facilities, Hard Landscaping, Parks, Natural Open Spaces & Green Chains, Biodiversity
Community Facilities	Libraries, Specialised Community Centres, Shared-use Community Centres, Community Offices, Other Facilities.
Emergency Services	Justice, Policing, Fire Service, Ambulance Service
Green infrastructure	
Energy	Decentralised Energy, Energy Efficiency
Waste	Waste Collection, Waste Management, Household Waste Recycling Centre
Flooding	Fluvial Flood Prevention, Localised Flood Prevention, Drainage Network

- 1.5.2 The *'Need vs. Delivery'* column provides a shortcut reference to recognise if the information within each row of the table is detailing the recognised 'need' for a type of infrastructure or whether the row provides information about the planned 'delivery' of projects to address such need. The different types of infrastructure have different quality and depth of needs assessment in place and / or agreed plans for delivering that category of infrastructure.
- 1.5.3 The *'Item'* column provides a short summary of the specific programme or details of the individual project and in some cases includes the main aim of the project in brackets.
- 1.5.4 The *'Delivery Partner's'* column identifies the potential or agreed partners who will need to be involved in the delivery of the project or programme, whilst the delivery mechanism column is there to set out the sphere of whom is likely to be responsible for funding the project or details of the specific funding mechanism where this is known.

- 1.5.5 'Completed' projects have been incorporated into the Infrastructure Delivery Plan from the five years leading up to this plan period (2006-10) to set out relevant recently delivered infrastructure. This is to demonstrate the types of areas in which infrastructure was recently delivered, and also to provide benchmarking to help estimate the cost of projects during the plan period.
- 1.5.6 The 'Cost' column provides details of the known costs of intended projects, or if listed in *italics*, an estimate of the likely cost. Every effort has been made to ensure that all projects planned for the 2011-16 period have been costed.
- 1.5.7 A 'Risks / Contingency' column has been incorporated to provide space to identify the key risks and impacts of not delivering each project / programme. Where suitable contingency measures are in place, these are identified in this same cell, but in many cases there are not suitable contingency measures and instead the risk is of reduced performance of the existing network.
- 1.5.8 An 'Area' column has been developed to divide the borough along the boundary of the A1 Strategic Route. The resulting two areas are 'East' of the A1, and 'West' of the A1, any requirements along the A1 itself are included under the 'West' category. All infrastructure is therefore recognised in terms of an east-west categorisation, from this a clear picture in terms of the more substantial infrastructure requirement for the West of the Borough matches the fact that a substantial amount of new development and almost all regeneration areas are located in the West of the Borough.
- 1.5.9 The table also incorporates a 'Sub Area' column to allow for identification of infrastructure items that are directly related to a specific priority growth area or town centre. The neighbouring 'Phase' column then provides space for the phasing of the longer-term developments to be noted in order to differentiate the short, medium and longer-term mitigation measures proposed to address the infrastructure requirements at different stages of consolidated growth.
- 1.5.10 The 'Period' column differentiates the table into 3x 5-year periods for the IDP; this groups infrastructure across financial years. The value of this is to both recognise the relationship between anticipated housing delivery and required infrastructure delivery, but also to place the requirements in bands of detail:
- 2011-16 infrastructure - the Council is aiming to have clear delivery plans and cost estimates in place for all projects by the end of 2011-12,
 - 2016-21 infrastructure - the Council is aiming to have clarity over the critical and necessary projects needing to be delivered during that period, and where gaps do exist for this to be known and plans to be emerging,
 - 2021-26 infrastructure - the Council hopes to have a sense of the critical and necessary projects for all regeneration and growth areas.
- 1.5.11 The 'Priority' column creates clarity between the infrastructure projects over the level of priority of each piece of required infrastructure. Paragraph 1.4.5 above sets out the definitions applied to identify the appropriate category.
- 1.5.12 The 'Core Strategy Policy' column creates a direct linkage between this living infrastructure delivery plan and the relevant Core Strategy policies that the delivery of each infrastructure project will support.
- 1.5.13 The 'Data Source' column provides a reference link so that anyone wishing to understand more or check details of a specific project, or to update this living document, can identify how the infrastructure project came to be included.

2 Physical Infrastructure

2.1 Movement: Transport

- 2.1.1 A borough-wide Transport Review has assessed the likely level of traffic up to 2031 on key routes in Barnet, delays at junctions and crowding levels on the underground and overground rail networks. The Review has utilised the North London Highway Assessment Model developed by Transport for London to support the Mayor's Transport Strategy, the Sub Regional Transport Plans and the work of Sub Regional Panels. Rail and tube crowding information has been derived from TfLs London-wide Railplan model. This has also utilised information from analysis undertaken as part of the major regeneration projects. Taken together this helps ensure that the Barnet LDF is robust.
- 2.1.2 Passenger Transport mainly considers only strategic transport requirements such as improvements to rail and underground networks due to the ongoing way in which bus service utilisation and route capacity is reviewed, except where a specific change has been identified in relation to a growth area.
- 2.1.3 The Mayor's Transport Strategy has provided the framework through which the strategic transport requirements have been assessed and identified. The IDP merely restates these projects and relates them to the locations and time periods in which population growth is anticipated. In terms of Step Free Access improvements there is general recognition that such improvements are required over time, but at present only the stations in growth areas have had feasibility studies completed and are programmed for delivery during this plan period; further conversations with TfL and Network Rail regarding the timing of delivery will therefore be required.

2.2 Movement: Highways Networks

- 2.2.1 Development of an understanding of the required highways infrastructure has been an iterative process beginning with key individual growth areas as Planning Frameworks and Area Action Plans were developed and individual developments have each come forward for adoption or grant of planning permission respectively over the past 5 years. This has now culminated in Barnet's June 2011 Transport Review which involved the analysis of the forecasts from Transport for London's North London Highway Assignment Model (NoLHAM) and its verification against the existing transport data including modelling work completed for each of the major growth areas.
- 2.2.2 The model has provided AM peak hour traffic flow and junction delay outputs for 2016 and 2031 from a 2008 baseline. The NoLHAM outputs recognise the change in the length of delays due to congestion at all key nodes within the highway network associated with projected growth across the borough as forecast by the Mayor and the GLA. Using the results of this important modelling, released in January 2011, the council have therefore been able to supplement our existing list of identified infrastructure projects modelled directly for each regeneration area.
- 2.2.3 Recognising all nodes in the borough's network beyond those directly linked to a specific growth area has led to additional nodes being identified as requiring capacity improvements to meet the combined borough wide impacts of projected population changes, or at least acknowledgement that delays at such junctions will be increasing over the plan period.

2.2.4 The corridor studies undertaken for orbital (“A110/A411”, “A109/A5109”, “A1003-(A598)-A504”) and radial routes (“A1000”) have provided information about opportunities for improvements to the smooth flow of the key borough road networks and have therefore also fed into the IDP’s identification of required infrastructure. A further study for the A5 corridor is proposed to look at this key growth route in a more holistic manner.

2.2.5 The highways junction projects within the IDP have all been labelled in terms of priority based on the following criteria:

- **Critical** Nodes on the Transport for London Road Network and the Borough’s Strategic Road Network identified as requiring capacity improvement due to a specific growth area; added to this are all junctions where there is an anticipated 100+ passenger car unit hours (PCU-Hrs) increase in forecast delays during the period.
- **Necessary** Nodes on the borough’s road network (non-strategic) identified as requiring capacity improvement in relation to a specific growth area or major development; added to this are all junctions where there is an anticipated 50-99 PCU-Hrs increase in delays during the period.
- **Preferred** Nodes with an increase in delays of less than 50 PCU-Hrs, but also those where there may be an opportunity to enhance junction capacity to address existing delays from congestion or improve the overall pedestrian environment, as well as links within the network where it is possible to improve the smooth running of traffic or address severance have all been classified as ‘preferred’. Lastly, it also includes junctions that were not specifically identified by NoLHAM as having forecast high levels of delays but which are expected to need reviewing in later years of the Plan.

2.2.6 According to the 2008 baseline data, some key nodes currently have periods of delay that would otherwise mean they should be labelled as critical or necessary to address throughout the plan period. These nodes therefore operate as network constraints but such limitations are not related to growth resulting from new development or population change during the plan period. These nodes have therefore been labelled as ‘preferred’ to recognise that were development to come forwards in close proximity to such nodes then it will need to consider how such development can help to address the constraint role the node plays on the network to enable such development to be considered acceptable and not adding to a severe existing problem.

2.3 Movement: Parking

2.3.1 On a borough wide scale there is little or no additional space available for improving on or off-street parking in relation to access to town centres, nor would this normally be beneficial to the smooth-running of those town centres. Most town centres now have a controlled parking zone in operation and therefore recent changes to remove ‘free bays’ have sought to further disincentivise car ownership and use of personal vehicles to access town centres. Adequate disabled parking of course continues to be a priority for existing available parking in town centres.

- 2.3.2 At Brent Cross Cricklewood the development proposes suitable car parking to address some need to drive to the new Metropolitan Town Centre, but overall the balanced package of transport measures are also expected to encourage greater use of public transport and other modes to access the area.
- 2.3.3 All planning permissions for major growth areas and developments have incorporated a range of travel-planning measures such as the introduction of car clubs and the provision of preloaded oyster cards to give new occupiers a full choice of transport and travel options and therefore help to reduce both the parking requirements for each development but also the vehicular impacts on the local and strategic road networks.

2.4 Movement: Footways and Cycleways

- 2.4.1 On a borough wide scale, the maintenance of footways is a substantial task funded within the capital grant from government, which is supplemented by the Local Implementation Plan (LIP) that supports delivery of footway relay schemes, town centre de-cluttering and other measures to improve the safety and attractiveness of pedestrian routes to users.
- 2.4.2 Areas where new housing is delivered often require sections of footway to be replaced as a result of damage during construction, addressed via s.278 agreements, but there are also requirements to improve or deliver new pedestrian routes to mitigate for the impacts of a single development via s.106 agreements relating to a specific development; therefore in terms of this plan they do not constitute the definition of 'infrastructure'.
- 2.4.3 In key growth areas, priority town centres and regeneration areas the whole fabric of the built environment is often required to be reconstructed to make development acceptable and ensure that the transport and travel objectives of the proposed scheme are delivered. Therefore only new routes or redesigned pedestrian and cycle routes have been considered in terms of this plan.

2.5 Utilities: Electricity

- 2.5.1 The electricity network works on a three tier hierarchy, the 1st tier is the national transmission network operated by National Grid, at 'Supergrid' substations; responsibility for the electricity infrastructure passes from National Grid to electricity distribution companies below 132kV.
- 2.5.2 The UK is split into 14 geographical areas in terms of the operation by electricity distribution providers. In Barnet the distribution network was formerly operated by Eastern Electricity and then subsequently EDF Energy, now it is run by a company called 'UK Power Networks'. The electricity network in Barnet will require 'reinforcement' in specific places to address any additional power needs linked to increases in user energy consumption from existing homes as well as in terms of new homes delivered.
- 2.5.3 UK Power Networks have been asked by the regulator OFGEM to review their future-planning related to the running of the electricity network to justify continued management for 2016-2026. They have begun a 3-year process of bottom-up investigation including an intensive process of consultation with all stakeholders to consider future electricity use scenarios and measures that could be taken to promote a greener future within the Southeast of England.

- 2.5.4 At the regional scale, the 11 kV primary sub-station level and upwards, the network is mainly being upgraded to address changes in the way energy is supplied from power plants; for example to build grid capacity to connect new off-shore wind farms. Changes at the primary substation level that will affect Barnet are detailed in the IDP, all linked to reinforcement of the sub-stations linked to growth and renewal of outdated equipment.
- 2.5.5 At the scale of the local network, reinforcements are planned on a two-year basis to ensure that: (i) all new developments are connected-up in time, (ii) that underground cables are moved in time to facilitate road improvements. Emergency work also takes place to address any network failures that occur.

2.6 Utilities: Gas

- 2.6.1 National Grid Gas, formerly known as Transco, operates the national 'transmission' gas network which distributes gas from key import terminals to the main grid and specific power stations; improvements and reinforcements to this network are managed at a national level.
- 2.6.2 At the local/regional scale, the North London gas network is also managed by National Grid Gas. Required changes to this network are completed for reasons of either safety, security of supply or to enable customer connections to be made in areas of new development. In terms of safety, the Health and Safety Executive has required that the programme for replacement of existing metallic pipes be speeded-up, and therefore this is a main driver within the future programming of works to the network. But in terms of Infrastructure planning, there is also a programme of some localised works to support the key growth and regeneration areas.
- 2.6.3 Despite a number of requests for more specific local information, National Grid Gas have not yet been able to provide the Council with full details of their programme of required local works during the period of the Core Strategy. However the Council is aware that developers in key growth areas have liaised directly with all utility providers to ensure new connections are delivered when required. In general, quarterly meetings are also held by the Council to coordinate street works and minimise the impact of works on vehicular and pedestrian movement, to which all utility providers are invited.

2.7 Utilities: Water Supply

- 2.7.1 In Barnet the water supply network is divided between Thames Water in the East of the borough and Veolia Water in the West of the Borough. Both are responsible for the water supply and the quality of drinking water in Barnet.
- 2.7.2 Thames Water has published 'Taking Care of Water' a Strategic Plan for 2010-35. The plan considers future change, various customer objectives, long term sustainability, efficient delivery of services and affordability.
- 2.7.3 Supporting the strategic plan is a Five Year Investment Plan that provides detail on how the strategic objectives will be delivered in the 2010-15 period. This plan sets out the following goals for water supply:
- work to protect sources of drinking water from agricultural chemicals
 - increase metering of domestic properties from 28% to 37% by 2015 to deliver fairer usage-charging arrangements, with 80% of homes metered by 2025.
 - Improved flood protection to protect drinking water quality and supply.

- Mains replacement programme to renew 500km of London's leakiest pipes.
 - Customers will be helped to save water and reduce their bills through water efficiency packs where meters are fitted. Vulnerable customers will be entitled to a professional audit by a plumber who will install water-efficient devices.
 - Water efficiency measures for existing and new homes will be promoted.
- 2.7.4 Veolia Water Central, formerly known as Three Valley's Water published its Water Resources Management Plan for 2010-35 in March 2010. The plan focuses on making best use of existing resources and demand management.
- 2.7.5 The plan sets out the following objectives:
- Improving and enhancing the performance of existing resources
 - Reducing leakage by 20m litres per day between 2014 and 2030 through replacement of 1% of pipe network per annum.
 - Customers will be helped to save water through water efficiency advice and water saving devices.
 - Installing water meters at domestic properties in a systematic way to deliver to 90% of homes by 2030; focusing on properties where there is a change in ownership, areas of greatest water stress or where mains renewal takes place.
 - To investigate new methods of charging for water to encourage more efficient usage, such as summer and winter tariff rates.
- 2.7.6 At the regional scale Thames Water are considering the need to increase its ability to store water, to ensure security of supply, through a new reservoir at Abingdon. The decision on this regional infrastructure project will be made once an updated and more detailed understanding of likely climate change impacts is completed. Such a decision will be identified through the company's Water Resources Management Plan when it is published.
- 2.7.7 Veolia Water Central do not need to increase their overall ability to store water in response to climate change, as they have license to abstract an uncapped quantum of water from the Thames to cover times of peak demand during drought conditions. This historic arrangement means it is Thames Water's forward-planning that must address its licence requirement to maintain minimum flows through the Thames. Veolia Water Central, however, has a handful of water storage facilities sufficient to provide short term cover in case of a pollution event in the River Thames.
- 2.7.8 Veolia Water Central also has a network of linking pipes to allow it to manage abstraction between its boreholes across the region to avoid compromising any one location during periods of peak demand. The plan also commits to a continued programme of monitoring resource requirements and the impact of demand management; this will allow for identification of any unexpected future changes and associated infrastructure needed to maintain resources.

2.8 Utilities: Waste Water

- 2.8.1 Thames Water is responsible for all the waste water and foul water sewer networks in Barnet. The Strategic Plan for 2010-35 and Five Year Investment Plan both provide the following goals for delivering strategic objectives in the 2010-15 period in relation to sewer and wastewater networks:

- The sewer network and treatment capacity will be expanded to meet demands of planned new development across the region; allowing for more than 200,000 new properties to connect to the sewer system between 2010 and 2015.
- Sewage works will continue to meet strict environmental guidelines, and continue to achieve close to 100% compliance with all treatment standards.
- Improvement and refurbishment of Beckton sewage works including increased capacity to meet new treatment standards, future population growth and also to reduce discharges of untreated storm sewage to the tidal River Thames.
- Protection of homes and businesses at greatest risk of floods from sewers. Improvements will be made to the sewer network in Barnet to reduce the risk of sewer flooding to 31 properties that have flooded previously.
- In addition, improvements will be made across the capital to protect 1,000 properties that are flooded for the first time and at 400 properties where new information is provided about previous flooding incidents

2.8.2 To ensure compliance with the EU Urban Waste Water Directive; and to cater for the volumes of waste/foul water created across London, including from Barnet, Thames Water is planning to deliver the Thames Tunnel. This will start in the West of London and follow the course of the River to Limehouse where it will direct North Eastward to Abbey Mills where it will link up with the Lee Tunnel that ends up at Beckton Sewage treatment plant in East London. This tunnel will greatly reduce the number of occasions when there is sewage overflow into the River Thames from storm events by providing connections to sewer overflow pipes that currently are directed straight into the river.

2.9 Utilities: Telecommunications

- 2.9.1 There are two core providers of telecoms networks in Barnet: Virgin (using the cable TV network) and BT Openreach (using the landline network). Both providers have diversified use of their cables to deliver 'broadband' application allowing for mixed digital signals that share the physical network.
- 2.9.2 The current priority upgrade to the networks is to enable provision of 'Superfast Broadband' capacity to the entire local network enabling speeds of 10GB+ per second. Both providers are needing to make changes to the core physical infrastructure in places, but generally this upgrade is required at the 'cabinet' level (the junction box for a group of homes) to install fibre-optic cables to link it to the main exchanges; although in practice the arrangements within each street can vary in terms of how the houses connect to exchanges
- 2.9.3 Virgin has already rolled out 'Superfast Broadband' to all homes in London (and is working on software to further double the speed). BT Openreach delivered Superfast Broadband capacity to Colindale, Golders Green and New Southgate exchanges in December 2010, and will have upgraded Edgware, Finchley, Hendon and Mill Hill by December 2011.

2.10 Physical Infrastructure – Next Steps

2.10.1 The following key physical infrastructure projects have been identified as the new or emerging work streams requiring specific additional attention to ensure their future deliverability is secured or impacts acknowledged:

- **Highways (Improvement Projects)** – The North London Highways Assessment Model (NoLHAM) provided analysis of congestion and traffic flows across the sub-region to 2031. It identified 3 additional critical highways junction projects between growth areas for the 2011-16 period that are currently not recognised as needing consideration of the impacts and therefore required improvements are currently unfunded (North Circular / Golders Green Road, A41 / Queens Road, and A5 / Deansbrook Road).
- **Highways (Impact Scoping)** – an end to end corridor study is required within the plan period of the A5 Edgware Road to assess total capacity and potential improvements to capacity through looking at the way the junctions work in series and how orbital traffic (crossing the A5) impacts on capacity. Related issues such as pollution and a cohesive approach to the public realm would also be beneficial to consider, linked to proposals such as the tree-lined avenue for Colindale and the Mayor of London's Green Grid proposals. But of greatest importance is to consider the roll of the West Hendon section of the A5 in relation to development programmes at Colindale and Brent Cross.
- **Step Free Access + Station Improvements** – co-ordination is required with TfL and Network Rail in order to establish the long term programme for delivery of Step Free Access and related station improvements programmes at the 13 remaining stations in Barnet. At present plans are only in place and developing in relation to the three key growth areas.

3 Social Infrastructure

3.1 Education: Tertiary

- 3.1.1 Middlesex University is the main provider of higher education in Barnet. The University has since 2006 been relocating its dispersed academic programmes from other sites to its main campus at Hendon.
- 3.1.2 In the 2011-16 period, Middlesex will open a new 'Innovation Centre' in Colindale to support graduates in developing start-up technology businesses, new museum space and the flagship new Arts and Media building including refurbishment of the adjacent Grove Park. Further consolidation is expected over the lifetime of the Core Strategy and will be guided by the adopted University Quarter Masterplan.
- 3.1.3 Barnet College, the main further education provider in Barnet, completed the rebuild of their Wood Street campus in summer 2010 and are now able to provide high quality teaching space for all academic courses. Further important changes will now take place as a result of merging with Southgate College in Enfield providing opportunity for greater efficiency and a wider scope of courses to be run. The combined facilities are likely to address any need for additional space during the plan period.
- 3.1.4 Many of Barnet College's technical courses are located in the Colindale Campus which as part of the regeneration programme is planned to be moved to a site adjacent to Colindale Station to improve the public transport accessibility as well as releasing the existing site for housing development.

3.2 Education: Secondary

- 3.2.1 The anticipated requirements for secondary school places are based on a complex process of modelling and estimation linked to existing primary school enrolment data, anticipated sizes of housing units planned for delivery, GLA predictions on population change and various formulas linked to assessing the number of children attending independent schools and out of borough schools, figure 3 details the projected shortfall of year 7 places. 1FE is equivalent to 30 places.

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
3 FE	8FE	13FE	18FE	25FE	24FE

*Figure 3 – Estimated additional Year 7 class requirements for 2015-20
(this includes a 3% margin)*

- 3.2.2 Delivery of new and expanded schools in recent years has delivered a current surplus of secondary school provision that will almost fully address the space requirements throughout the first part of the plan period. However in the 2016-2020 period it is recognised that the increasing demand for primary school places will begin to affect the number of secondary school applications. As demand increases a significant number of new secondary school places will need to be created.

- 3.2.3 A paper went to Cabinet on 3 November 2011 setting out the proposed phasing of primary school expansions and the investment strategy to meet demand for secondary school places. In order to meet projected demand the following is proposed:
- expansions at existing secondary schools to increase provision by up to 3FE during 2011/12 to 2013/14
 - expansions at existing secondary schools to increase provision by up to 3FE during 2014/15 to 2016/17
 - potential development of a new secondary school of up to 9FE to be completed by 2018
- 3.2.4 While additional secondary capacity is being delivered it will be necessary to use some temporary accommodation. Although dependent on when permanent capacity is created, it is currently projected that 40 classes of temporary accommodation will be required in the period 2015 to 2020. No land has yet been identified where the proposed new secondary school could be delivered, and so an additional 50% contingency has been incorporated into the Infrastructure Delivery Plan.
- 3.2.5 Should a free school proposer of a large secondary school be successful in an application to Government and have a site in Barnet, additional places would become available outside of the Local Authority's strategy. This would have a significant impact on our current proposals.

3.3 Education: Primary

- 3.3.1 The reliability of data on requirements for primary school places are largely restricted to a 5 year time frame enabling data for registered births to be used for calculating demand. The periods beyond 2016 must therefore be viewed very much as estimates based on migration, birth rates and planned housing delivery trend data. The Council's children's service strategy team help to ensure that the requirements are regularly reviewed and that planned delivery of permanent and temporary classrooms is progressed.
- 3.3.2 The requirement to provide a significant increase in Primary School places is one of the greatest challenges to ensuring Barnet remains a Successful London Suburb as a result of planned and natural population growth. Recent reassessment of GLA figures has led to an upward revision for anticipated pupil numbers linked to natural population change. In total it is predicted that up to 2,310 additional school places will be needed during the 2011-15 period.

2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
13-14 FE	13 FE	15-19 FE	18 FE*	20FE*	21FE*	22FE*

Figure 4 – Estimated addition reception classes required 2012/13 to 2018/19

- 3.3.3 For 2011/2012 13 temporary FE have been added, some of which are planned to become permanent expansions. 2 permanent FE have also been added: Edgware Jewish Primary School (which joined the maintained sector in January 2011) and Etz Chaim free school (which opened in September

2011). Going forward, it is planned to deliver additional capacity through a combination of permanent expansions at existing and new schools and temporary expansions

3.3.4 To meet current and projected demand permanent expansions and new schools are proposed as outlined below. They are all subject to statutory consultation and planning consent.

- Broadfields – expansion from two to three form entry school on current site - (already underway)
- Grahame Park area - expansion of Orion school from two to four form entry school through relocation to nearby site, releasing capacity for the potential expansion of Blessed Dominic
- Menorah Foundation – expansion from one to two form entry school on current site
- St Marys and St Johns – expansion from two to three form entry school
- School yet to be confirmed in east of the borough – one form of entry expansion
- School yet to be confirmed in east/north east of the borough - one form of entry expansion
- Mill Hill East – school to meet demand from regeneration (to be mainly financed by developer contributions)
- Deansbrook – expansion of the schools on current site from three to four forms of entry
- School yet to be confirmed in east of the borough/ and or special school expansion
- Possible new two form school in south of the borough

3.3.5 In terms of school place requirements in 2016-2020, each 1FE permanent expansion will be utilised over 7 years from the year of delivery, therefore expansions delivered during 2011-16 will continue to address some of the pupil place needs during 2016-21. Projections suggest at least a 20FE deficit throughout 2016-20, as set out in table 4. It is not yet certain how all these requirements will carry forward. It is proposed to deliver one of these through an expansion to a primary school in the east of the borough, and it is anticipated that up to 6FE of expansions might be required during the period beyond provision linked to regeneration areas.

3.3.6 Further projects linked to regeneration areas are also planned during the 2016-20 period including: 1FE expansion at Claremont School during the rebuild process at Brent Cross Cricklewood, as well as two schools in Colindale; a 2FE new school at the Barnet College site in 2016-2020 and a second 2FE new school in 2021-2025 in Colindale at the Peel Centre site.

3.3.7 Identification of ready and affordable additional school sites or space at existing schools for expansion is clearly a particular challenge, not least because many areas of greatest natural population growth also coincide with the growth areas where substantial new housing is planned; with planning permissions already granted, retrospective allocation of more space for new schools and land scarcity is a problem that is needing to be managed.

3.3.8 A related challenge is ensuring value for money when delivering additional capacity. It is a statutory requirement for all children under 8 to be given a primary school place within 2 miles of their home. With the greatest demand for places in particular parts of the borough, concurrently it is these areas that

generally do not have much spare open space at existing school sites for delivering cost effective solutions. Creative solutions are therefore needing to be found in order to avoid the need to spend precious funds on the rebuilding of an entire school just to deliver a 1FE expansion.

3.4 Education: Early Years

- 3.4.1 The anticipated requirements for nursery school places are being addressed through delivery of new nurseries at the same time as primary schools are expanded and changed. Supplementing this is the strong presence of the private sector in meeting the need of many parents for full time care for Under 5s, who operate out of a myriad of different community and religious facilities as well as the occasional new site through conversion of the ground floor of large houses by people running a nursery in their own home.
- 3.4.2 In recent years grant funding was provided to develop Sure Start Children's Centres borough wide to provide a universal level of care and support to all young families. As a result of funding cuts these existing centres are being consolidated to focus provision on the most vulnerable families and therefore there is unlikely to be a need for additional Children's Centre space to provide early years services, even with anticipated population change.

3.5 Education: Special Educational Needs

- 3.5.1 In recent years provision for children with SEN has been increasingly integrating into mainstream schooling. Therefore the infrastructure requirements for addressing these needs will mainly be facilitated through the process of schools forward-planning. The new Orion School site in Colindale is anticipated to deliver required extra SEN provision.

3.6 Healthcare: Secondary

- 3.6.1 Secondary healthcare covers a whole range of specialist and acute services that are the responsibility of many different organisations including Barnet, Enfield and Haringey Mental Health Trust, Barnet and Chase Farm Hospitals Trust, Royal Free Hospital Trust and Central London Health. It is the responsibility of North Central London NHS and, when Health and Social Care Bill provisions are enacted, of the GP commissioners, to agree the nature and type of services purchased from Secondary Care providers.
- 3.6.2 Addressing the borough's infrastructure requirements in terms of secondary care facilities is therefore not correlated to population growth, but instead linked to the nature and level of activity commissioned by primary providers. Given the emphasis on bringing routine treatment and non-specialist services down to the level of Primary Care Facilities, it is anticipated that Secondary Providers will be enabled to have bed spaces available throughout the period and therefore no meaningful relationship exists between growth and need for acute and specialist healthcare infrastructure nor to record such provision or change within the Infrastructure Delivery Plan.

3.7 Healthcare: Primary

- 3.7.1 Primary healthcare was recently the responsibility of NHS Barnet which is currently consolidating into North Central London NHS (NCL NHS), and will

transfer to the responsibility of individual GP commissioning organisations following enactment of the Health and Social Care Bill. NHS Barnet anticipated that two GP commissioning organisations will develop in Barnet, one in the West and one in the East of the borough.

- 3.7.2 The anticipated structures correspond well with the current planned primary healthcare provision that will operate on a hub and spoke model centred around two community hospitals at Edgware and Finchley, each supported by other smaller Primary Care Health Centres that will provide a range of the most common services patients require in each locality. Improvement of existing, as well as delivery of new, Primary Care Health Centres will need to be a focus for these organisations as they develop in order to reduce the cost of commissioning healthcare and provide the more localised delivery of basic procedures, treatments and some specialist services outside of a costly and higher risk (of infection) hospital setting.
- 3.7.3 At the level of spokes, individual GPs will still be able to have their own practices and commissioners will still be required to adhere to the legal requirement to pay for GP-owned facilities, but the trend will continue to try to consolidate GPs into shared, disabilities-compliant, less costly facilities where a greater range of patient services can be provided. Due to the contracting and GP-led nature of these services, it is not possible to forward-plan for such change over the development plan period.
- 3.7.4 In the three priority growth areas, however, thorough review of the additional need for health facilities has been planned through the Area Action Plans for Colindale and Mill Hill East and the Development Framework for Brent Cross Cricklewood. Therefore the challenge in these areas is to ensure sufficient revenue funding is in place to allow for new or reconfigured facilities to be delivered and leased from the developer, commonly at a peppercorn rent.

3.8 Healthcare: Social Care

- 3.8.1 In Barnet, the 'Right to Control' project has moved decision-making about social care provision to users through the creation of 'personal budgets' which can be spent as they see fit. Current provision of Care Homes, Day Centres and other such services will therefore move to a market-based system with the users themselves deciding whether to procure such services and from whom to procure them. This means that the provision of infrastructure related to social care cannot be directly identified and planned for; nor can population change, in terms of the number of people living longer, be correlated with the provision of facilities for services from which to operate.
- 3.8.2 One dimension that will be relevant in the near future is that with many social care and disabilities support services moving across to the voluntary sector, there will need to be a network of easy-in, easy-out, *low cost* facilities from which to provide services if a steep rise in costs for services is to be avoided should such services have to hire premises at commercial rents.
- 3.8.3 Work towards considering this future need is underway, but has not yet reached a stage of having clear plans, therefore the Infrastructure Delivery Plan itself is devoid of specific projects other than the direct replacement of the existing 'Flightways Centre' with a new 'Centre for Independent Living' as a result of the redevelopment of Grahame Park Estate in Colindale.

3.9 Open Spaces, Sport and Leisure: Sports Centres

- 3.9.1 All sports centres open to general public use in Barnet operate under the Greenwich Leisure Limited (GLL) contract with Barnet Council. It is this open provision which is the main focus of this Infrastructure Delivery Plan as all other facilities operate on a commercial and market-driven basis.
- 3.9.2 In response to funding cuts the council has agreed to change the existing GLL contract to deliver a public leisure service at nil cost to the taxpayer. Plans are being developed to assess ways this can be achieved, through a process of consolidation, rebuild of high maintenance cost facilities and other means to deliver the key objective.
- 3.9.3 Cabinet approved an Open Spaces and Leisure Strategic Review on 14th September 2011 that is planned to provide forward planning on physical well-being but also touch on mental well-being. The scoping stages for the project are October 2011 – January 2012 with consultation on issues and options in spring 2012 and preferred options developed for autumn 2012.

3.10 Open Spaces, Sport and Leisure: Sports Pitches

- 3.10.1 The Planning Policy Guidance 17 (PPG17) Assessment of types and volume of open spaces per resident identified that whilst there is a good geographical coverage of playing pitches, that by 2026 there will be a need for 129 hectares of additional outdoor playing pitches space (nearly doubling existing provision) due to the poor quality of many existing pitches (mostly linked to poor drainage) and the lack of accessibility to some existing sites.
- 3.10.2 Barnet's approach to this need for additional outdoor sports pitch capacity will therefore look at how improved drainage could deliver additional playability using current provision as many existing pitches are in clay-soil areas that flood easily and therefore during the wintertime can only be played once per week, if at all. Another approach to meet demand for sports pitches will be through delivery of multi-use games areas (MUGA) to provide synthetic pitch space that can be intensively played: schools are key locations that often have this facility and some are less well utilised outside of school hours.
- 3.10.3 The Open Spaces and Leisure Strategic Review will provide direction on this matter, and therefore at present few specific playing pitch improvement projects have been identified and costed outside of priority growth areas.

3.11 Open Spaces, Sport and Leisure: Swimming Pools

- 3.11.1 There are a number of private gymnasias and sports clubs that provide a small swimming pool; but only some sports centres open to daily general public use in Barnet contain a swimming pool as well as some schools that lease the facilities to swimming clubs outside of school hours. Again, only publicly open facilities are the focus of this IDP as other swimming facilities operate on a commercial or limited community access basis.
- 3.11.2 Need for and capacity of Swimming Pools in Barnet will be considered as part of the scoping for the Open Spaces and Leisure Review. Again, due to funding cuts the existing GLL contract will be changed to deliver a public leisure service at nil cost to the taxpayer and therefore this will impact on the options developed through the Review; rebuilding or decommissioning of facilities operating with high maintenance costs will need to be considered.

3.12 Open Spaces, Sport and Leisure: Play Facilities

- 3.12.1 The Core Strategy sets out that less than half of the parks in Barnet have play provision for children. Overall 54% of Barnet's area is not within 600m of formal equipped areas for play and a significant increase in facilities is required as Barnet's population gets younger. Delivery of well maintained and adventurous play facilities has been identified as a priority for the Open Spaces and Leisure Strategic Review.
- 3.12.2 The Assessment highlighted the need to improve access through public rights of way to play areas at Deansbrook Play Area, Fairway Children's Playground and Edgwarebury Park. It also identified 15 open spaces in areas with deficiencies that have potential to provide play equipment. Delivery of play facility improvements in these identified locations is therefore an IDP priority for any funding towards play facilities that is required.
- 3.12.3 Since the demise of playbuilder grants, generally the only play facility projects programmed are where external funding is made available either through a specific development's planning contribution or through a successful grant bid by a local residents association or park's 'friends group'. In terms of planning contributions, play facilities have been incorporated into the plans for each regeneration or development area, but are only in place where opportunities have arisen in relation to all other areas not within 600m of a play area. A challenge, therefore, for the Open Spaces and Leisure Review will be to identify additional funding to support and address this priority issue.

3.13 Open Spaces, Sport and Leisure: Hard Landscaping

- 3.13.1 Provision of areas of hard landscaping provides a distinctly urban form of the traditional conception of town squares or common land at the heart of a village. In some particular areas of open space deficiency, the provision of new publicly accessible spaces of hard landscaping may provide a more suitable or deliverable alternative to address the need for access to open space. Generally, these have been considered in relation to town centre strategies or where opportunities have arisen relating to major growth areas.
- 3.13.2 At the neighbourhood level, hard landscaping can support delivery of local open spaces through shared-use residential streets; here 'homezones' can create safe spaces for children to play but where slow vehicular movement ensures there is both access to homes and improved security for properties. Community squares have also been proposed in relation to many regeneration schemes to provide a gateway to these new communities.

3.14 Open Spaces, Sport and Leisure: Parks

- 3.14.1 The PPG17 assessment identified the need for 4 District Parks and 29 Local Parks in order to meet the Mayor's minimum standards for access to open space. Again, in a successful suburban environment such as Barnet, the creation of additional parks, particularly district parks is mostly linked to enhancement, extension, improved access to or connection between existing parks. The PPG17 assessment recognised that the areas most in need of new parks are generally those furthest from greenbelt areas where existing public or privately owned open space could more easily be transformed into new parks; it is therefore unlikely that the full level of need can be addressed.

- 3.14.2 Specific opportunities for improving and/or enlarging existing parks have arisen in relation to the Priority Estates regeneration areas at Brent Reservoir (West Hendon Estate), Edgwarebury Park (Stonegrove Estate), the Upper Dollis Brook (Dollis Valley Estate) and Grahame Park Open Space, recently re-opened as 'Heybourne Park' (Grahame Park Estate). Alongside these improved spaces, various new additional open spaces are also planned in relation to Brent Cross Cricklewood, Mill Hill East and Colindale.
- 3.14.3 Improving access to existing open spaces, particularly in areas of deficiency, is a key priority for some of the existing more developed areas; particularly those in the East of the borough where specific development opportunities might arise that could open up new access routes to existing spaces or help to fund proposals that might be identified and worked-up through the Open Spaces and Leisure Strategy.

3.15 Open Spaces, Sport and Leisure: Natural Open Spaces and Green Chains

- 3.15.1 Whilst the PPG17 assessment identified that 48ha of natural open space would ideally be needed to meet the needs of people in Barnet. In a successful suburban environment such as Barnet, the creation of additional natural open spaces can generally only be linked to enhancement, extension or connection of existing natural open spaces. Opportunities linked to the Watling Chase Community Forest or underutilised greenbelt spaces will be considered within the Open Spaces and Leisure Review.
- 3.15.2 The completion of an Open Spaces Investment Plan for Colindale to expand on the open space principles within the existing Area Action Plan, alongside the plans in relation to both Mill Hill East and Brent Cross Cricklewood have sought to built on and enhance existing areas of natural open space to support the plans for growth, with each delivering small buffer areas of natural open spaces as part of parks or community facility proposals.
- 3.15.3 Buffer areas of natural open space will provide 'green chains' to support the movement of wildlife through Barnet as well as for walking and cycling. The Council is continuing to support development of new and existing corridors in partnership with the Mayor of London through his strategy of 'Green Grids', this strategy seeks to provide linkages between existing natural open spaces at a regional scale, and ties in with the existing improvements being delivered to Dollis Valley Greenwalk through the Mayoral 'Help a London Park' fund.
- 3.15.4 The Mayor has specified identified river Networks as strategic green chains to support the delivery of the London Plan. In the longer term, the proposed Development Management Policy requirement in Barnet for a publicly-accessible buffer zone to be required alongside river courses whenever redevelopment of adjacent sites takes place, will help to develop contiguous green chains in Barnet and the green grid strategy in London as a whole.
- 3.15.5 The specific long term large scale opportunity in Barnet is to deliver a regional park between the Upper Dollis Brook, Brent Reservoir and Hampstead Heath. Key projects that will work towards delivering this including the high priority restoration of the river and associated parkland at Brent Cross Cricklewood, improvements to the Upper Dollis Brook including near the regeneration site at Dollis Valley Estate, along the Lower Dollis Valley Brook where the Mayor's funds are currently delivering improvements, and lastly at Brent Reservoir where the SSSI and parklands are due to be improved linked to development at the neighbouring West Hendon Estate.

3.16 Open Spaces, Sport and Leisure: Biodiversity

- 3.16.1 Biodiversity overlaps with all the previously identified categories, but at the same time provides a useful separate point of reference for often softer 'infrastructure' projects that specifically focus on improving 'biodiversity'.
- 3.16.2 The network of watercourses that pass through Barnet and their related river catchments are key strategic locations for improving biodiversity. But due to the non-alignment of river catchments with political boundaries, measures to improve these river catchments are generally at the regional or sub-regional level. The EU Water Framework Directive provides the broadest context and long-term monitoring of improvements to fluvial hydromorphology, water quality and biodiversity; this work is led by the Environment Agency on behalf of the Department for Environment, Food and Rural Affairs (DEFRA).
- 3.16.3 The challenging and costly nature of water course improvements within the London area mean that key improvements to river morphology and biodiversity are only likely to arise as specific opportunities come forwards, such as at Brent Cross Cricklewood. Where a specific river does pass through parkland, such as along much of the Dollis Brook, localised measures to improve the river courses can and are being delivered as capital funding becomes available, such as through the 'Help a London Park' scheme.
- 3.16.4 At the site-specific level, ecological surveys and related requirements have become the mechanism through which localised biodiversity considerations are taken into account and mitigated, particularly for larger development sites; here protected species are identified and location-specific measures are required from specific developments. In some cases improvements to a neighbouring open space such as through the introduction of bat boxes and landscaping improvements will help mitigate for increased use of the park.

3.17 Community Facilities: Libraries

- 3.17.1 Provision of libraries is a statutory requirement; the recent strategic review and strategy approved by Cabinet on 26 July 2011 identified a number of proposed changes to manage the impacts of housing growth areas as well as to address the substantial budgetary challenges over coming years. The proposals sought to find opportunities to co-locate libraries with other public services where appropriate and make wider changes to the property network to provide high quality spaces with good access.
- 3.17.2 The approved strategy will be delivered through a range of developments to improve the condition and accessibility of library buildings. The strategy also includes proposals to: co-locate North Finchley and Friern Barnet libraries into a new Landmark library, develop a new library in Finchley Church End, dispose of two sites, replace Grahame Park and Child's Hill with new fit-for-purpose facilities, negotiate to end the lease of Hampstead Garden Suburb library, develop a new site in Brent Cross-Cricklewood in the longer term, invest in all other library branches including to reduce utility costs and provide a more sustainable service, and establish co-located services with partners.
- 3.17.3 Work is underway to ensure that practical and financially feasible options are taken forwards. Details of how the programme will be delivered will be taken to elected members towards the end of 2011/12. In the meanwhile work is

underway to identify realistic opportunities for co-location; it is anticipated that the cost to deliver all these service changes will be circa £4m.

3.18 Specialised Community Facilities: Uses with fixed equipment requirements such as arts, performance and youth spaces

- 3.18.1 The need for these spaces is addressed organically by the 300+ community-based organisations that offer arts, sports and leisure activities in Barnet.
- 3.18.2 Opportunities to deliver new or improved arts and performance spaces will arise through re-letting, reconfiguration, or rebuilding of existing community buildings or through delivery of arts spaces within new educational facilities.
- 3.18.3 Consolidation of youth centres and youth worker posts is changing the nature of the 'youth offer' in Barnet, but in the key growth areas, particularly where development involves demolition of an existing facility, replacement provision has been agreed in all cases delivering improved quality and/or size of facility.
- 3.18.4 Leisure centres are recorded under sports and recreation provision, but it is important to recognise that they usually consist of a mixture of different sized rooms and other spaces, some such as climbing walls and gymnasiums are fitted-out for specialist user groups or purposes whilst other spaces such as dance studios are generally more flexible in the way they can be used and such uses can therefore sometimes be found in 'community facilities'.
- 3.18.5 Museums also tend to be flexible in the way a building can be used, but then become limited in terms of the ability to share use as the set up costs and complex nature of exhibitions and collections means that in most cases they have to have sole occupation of a facility for an agreed period of time.
- 3.18.6 The nature of community facilities with specialised uses is that whilst they can be let or hired by other groups, in practice the storage and specialist equipment / fitting-out of the facility restricts the ability for sharing usage of the space. The focus for such facilities should therefore be to ensure these uses deliver positive benefits to the local community, preferably both financial benefits and engagement with local communities to promote community cohesion, local leadership and role modelling for young people.

3.19 Community Facilities: Shared Community Centres

- 3.19.1 New and refurbished general-purpose community facilities are needed in a variety of forms and locations with a suitable range of hire costs to address demographic and cultural change. The primary objective should be for such facilities to be inclusive and capable of addressing local needs. Their use should also be financially sustainable and ensure the facility is managed and maintained to a good standard.
- 3.19.2 Such community facilities are usually either Council-owned or owned and run by third sector charitable organisations, this is particularly the case with local faith groups who usually have a subscription or membership system that funds the maintenance, purchase and/or leasing of the building.
- 3.19.3 In the near term, to ensure the Council makes its own assets as widely available and accessible as possible, the Council's Property Services team are delivering on an agenda to increase shared-usage of facilities and improve consistency between users by charging a market rent for leasing of all facilities and reducing any rent-free single-user historic arrangements in

order that proper funding is secured for the ongoing maintenance and delivery of improvements to the portfolio of community facilities in general.

- 3.19.4 In the longer term community facility demand data will be able to become available through development of web-based datasets that provides access to information on the availability of facilities for all community groups to easily identify available local facilities. The benefit is that the aggregated data will enable identification of areas in the borough where the level of demand, i.e. number of existing bookings, for community facilities is highest. This will enable strategic opportunities for improved facilities to be identified in the medium-long term. It will also enable use of educational and third sector owned facilities to be captured in relation to local demand for meeting spaces, particularly in parts of the borough with few existing Council-owned facilities.
- 3.19.5 Work is already underway to identify those sites in urgent need of review with regard to letting arrangements. On this basis opportunities for enabling greater sharing of such facilities can be developed. The medium term strategy being taken by the property services team in practice is supporting a consistent process with clear goals to develop a series of shared facilities with the clear objective that each is set up to deliver financial sustainability.
- 3.19.6 One area of provision that is being explored is the role of core users to ensure adequate management, maintenance and financial sustainability of each facility; key examples include partial use of the facility or co-location alongside a library, health centre, nursery or community office. Improved management and better maintenance of facilities is likely to support improved income from more regular sub-letting and more frequent casual hiring for one-off events.
- 3.19.7 The IDP at present only identifies known non-council projects linked to planning applications or pre-application advice, as well as proposed facilities linked to regeneration and development areas. In time the full list of identified facilities and their cost for improvements will be added to the IDP.

3.20 Community Facilities: Community Offices

- 3.20.1 Use of affordable leased or hired community office shared space is needed to support the development of the Big Society as innovative new organisations need 'space' for meetings, storage, organisation and operation of their charitable or social enterprise. Such facilities can be financially sustainable by also catering to start-up businesses and charging for facility use and room bookings at an affordable rent to such businesses. The key to these facilities is for them to provide an easy-in, easy-out space; either for temporary use or over an agreed period of start-up or transition.
- 3.20.2 The added benefit of delivering affordable community office space is that it provides the opportunity for small groups and enterprises to interact and produce new ideas and joint or co-ordinated projects. The IDP identifies delivery of these spaces in Colindale, and it is hoped the current work by Property Services will help deliver more opportunities.
- 3.20.3 As noted in paragraph 3.8.3, a further role of affordable office spaces might be to support future commissioning of social care services to third sector providers as the cost of commissioning services will increase from current levels if the providers are required to commercially hire office or meeting spaces on the open market. Initial work to explore the importance of the relationship between social care and affordable office spaces is in progress.

3.21 Community Facilities: Other

- 3.21.1 This category has mainly been included within the Infrastructure Delivery Plan to allow for undefined spaces to have a temporary home until their proposed use becomes clearer (i.e. a developer agrees to deliver 'community facilities' but has not yet produced nor found local groups to deliver a 'business plan' for the use of and running of the facility). These generally relate to regeneration areas where the provision of new community space was only defined in broad terms within the s.106 agreement.
- 3.21.2 This category also provides a home for hard-to-define community use categories such as 'funeral facilities', meaning cemeteries, crematoria, memorial gardens and other facilities linked to communal marking of the end of life. In relation to burial facilities, through the Cemetery Research Group's March 2011 audit, the Mayor has established that Barnet has adequate capacity to meet the estimated demand for virgin burial space up to 2031.

3.22 Emergency Services: London Fire and Emergency Planning Authority (LEFPA)

- 3.22.1 Should the London Fire Brigade require additional capacity, in Barnet this can be delivered through the introduction of additional vehicles and crews at the existing fire stations if for any reason the risk profile in a local area increased.
- 3.22.2 One reason that the risk profile might change would be through the introduction of tall buildings, defined as buildings over 8 stories high. Section 10.6 of the Core Strategy refers to the Tall Buildings study and mapping that was completed to ensure that such buildings are located in suitably. In terms of growth, the only changes in the pattern of tall buildings relate to the specific developments in growth areas in the West of the Borough. The London Fire Brigade is aware of the details of such developments and therefore will consider any required changes to equipment in relation to risk profiling.
- 3.22.3 In relation to property, the London Fire Brigade have highlighted their intention to move the existing Finchley Fire Station to a location with direct or adjacent access to the A406 North Circular Road, but have not set a specific timetable for this to be delivered as it relates to a longer-term desire to reduce the time to access the North Circular Road in responding to emergency calls.

3.23 Emergency Services: Police and Justice Facilities

- 3.23.1 Forward-planning for policing infrastructure is linked to the Metropolitan Police's Asset Management Plan which does not currently identify any specific project proposals for policing facilities in Barnet. Engagement to confirm and assess this position has been with the consultants CGMS who are working on behalf of the Metropolitan Police.
- 3.23.2 To date CGMS have identified that outside of some localised front counter provision in each of the three growth areas, The Metropolitan Police do not have any specific infrastructure requirements at this time but will continue to review forecasted growth in the Borough and assess future policing needs.
- 3.23.3 Forward-planning for required justice infrastructure has also been with CGMS on behalf of Her Majesty's Court Service (HMCS). We will work with HMCS as it reviews its estates in Barnet. To date they have identified that recent

improvements to the local magistrates court mean there are no further specific infrastructure requirements at this time.

3.24 Emergency Services: London Ambulance Service

3.24.1 Managing demand and need for Ambulance provision correlates more with procedures and practice than population growth. The Trust's forward strategy focuses on changes to the way emergencies are responded to rather than opportunities relating to property. For this reason the London Ambulance Trust has not identified any specific infrastructure needs at the present time, but will continue to review the impact of planned and natural growth and how this translates into additional demand on their services over time.

3.25 Social Infrastructure – Next Steps

3.25.1 The following key social infrastructure projects have been identified as the new or emerging work streams requiring specific additional attention to ensure their future deliverability is secured or impacts acknowledged:

- **Education** – As set out in the Cabinet Report on 3 November 2011 a programme of permanent primary school expansions has been developed. The majority of schools where expansions are proposed have been identified, and statutory and planning processes need to be progressed. Work is underway to identify a further three schools in the areas where expansions are proposed. A further £24m is sought for the programme of permanent primary expansions up to 2016/17.

At secondary level schools need to be identified for permanent expansion, and land and funding for a possible new secondary school (of up to 9FE) will also need to be secured. This will be dependent on the development of any secondary free schools in the borough, which would have a significant impact on the current strategy.

- **Health & Social Care, Libraries and Community Facilities** – Strategic reviews, assessments of need, datasets of existing facility quality, usability and required improvements are available to varying degrees of completeness and detail, which together have been used to inform this infrastructure delivery plan with regards to this broad agenda of community wellbeing.

Proposals are currently focused on options to deliver reduced running costs, generally considering the delivery of shared-use community facilities in a variety of different formats, through refurbishment / replacement of existing assets. There is also a need to consider affordable office / meeting spaces to support the future commissioning of health and social care services.

The Health and Wellbeing Board could usefully provide a governance role to enable this cross-service programme to be joined-up, shared objectives to be developed and a complete picture of funding limitations to be identified.

- **Open Spaces, Sport and Leisure** – The approved leisure review is critical to providing consistency and a forward direction for these areas that have not had the benefit of a strategic framework in terms of grant bidding and negotiation / application of development contributions.

4 Green Infrastructure

4.1 Energy: Decentralised Energy

- 4.1.1 In 'leading to a greener London' published in July 2009 the Mayor committed to a 60% reduction on 1990 levels of carbon emissions by 2025. This ambitious target translates into a number of very challenging programmes of transformation that will be required to deliver such levels of change.
- 4.1.2 To help deliver this target, 25% of London's energy will need to be delivered through decentralised energy by 2025; equating to generation capacity of 1,800MW and a heat output of about 3,400MW. To meet this target, it is estimated that such networks will need to be delivered at a London-wide equivalent rate of 500m of network per day over 20 years.
- 4.1.3 The London Development Agency's London Heat Map Study completed in May 2010 involved a full 'heat mapping' exercise in Barnet to match heat sources with heat users and identify opportunities for decentralised energy with a sufficient mix of local users to create a balanced energy load.
- 4.1.4 Four locations were identified where the delivery of decentralised energy can be prioritised in relation to existing and future development: The two critical areas for decentralised energy delivery are the growth areas of Colindale and Brent Cross, whilst the preferred areas for also delivering decentralised energy are the two town centres of Chipping Barnet and North Finchley.
- 4.1.5 The next step will be to complete detailed feasibility work and to co-ordinate with development and utility partners to produce deliverable next steps; a key challenge is to identify the lead partners in utility providers to ensure delivery. First steps will be focused in Colindale where development is rapidly progressing, and then at Brent Cross as development comes on stream.
- 4.1.6 At present there is no existing shared pipe network for locally distributing heat from new decentralised energy sources, therefore these local Combined Heat and Power plants will be limited to catering for the needs of individual large developments until such time as a shared network can be put in place.
- 4.1.7 The cost of installing such a network will be both prohibitive and disruptive to vehicular or pedestrian movement, and therefore every opportunity needs to be made to align delivery with improvements and repairs by utility providers.

4.2 Energy: Energy Efficiency

- 4.2.1 It is the Mayor's ambition to retrofit over half of London's three million homes by 2025. The London Buildings Energy Efficiency Programme developed to deliver cost neutral energy efficiency investment for public sector and commercial buildings has been adapted and developed into the government's 'Green Deal'. The mechanism will from autumn 2012 allow for every owner of a building to deliver energy efficiency improvements for no up front cost, and instead pay back for the improvements through future energy bills. Key to the programme is that the only improvements funded will be those costing less than the saving in energy costs over a set number of years.
- 4.2.2 As noted in paragraph 4.7.3 of the Core Strategy, 72% of the housing stock in Barnet is owner-occupied; according to the Building Research Establishment Housing Stock Model, this stock includes 22,000 homes that would fail to achieve 'Decent Homes' standard if tested. Furthermore, with the private

rented sector larger than the social rented sector in Barnet, it will also be important to ensure that tenants in this private rented sector do not miss out on the opportunity presented by the Green Deal due to the separation of the home owner from the bill payer. Recognising these challenges, the Council has already taken steps to focus improvements and support on the most vulnerable members of society within existing measures, and clearly further work will be required to develop a joined-up approach that ensures that the Green Deal will reach both home-owners and tenants across Barnet.

- 4.2.3 Mitigation of future carbon emissions is a key opportunity and priority for new development to deliver improved thermal efficiency through striving to attain higher Code for Sustainable Homes and BREEAM ratings than the minimum required. The infrastructure Delivery Plan identifies enforcement of these standards and the forthcoming update to the Council's Sustainable Design and Construction SPD as the mechanism for achieving meaningful delivery of thermal efficiency improvements in new homes.

4.3 Waste

- 4.3.1 Understanding the level of need and development of the strategy for delivering required waste facilities has been led by the North London Waste Authority and delivered through the Joint Waste Strategy to achieve Mayoral targets for 85% self sufficiency and to divert more waste from landfill by 2020.
- 4.3.2 The Infrastructure Delivery Plan will incorporate planned sub-regional and local waste facilities at the stage when the plan is successfully adopted or planning permission for any of the planned facilities is granted. At present, on land for which the London Borough of Barnet has direct responsibility, this only includes the proposed enhanced facility at Brent Cross Cricklewood with its waste vacuum network linked to the associated large scale development.

4.4 Flooding

- 4.4.1 The Infrastructure Delivery Plan incorporates recently delivered flood risk mitigation projects relating to both Fluvial and Surface Water flood risk. Some further Surface Water flood risk mitigation measures will be required, but the next stage towards updating and improving upon existing planned delivery of projects will involve completing a Surface Water Management Plan for the borough to identify the neighbourhoods and individual planning units that are at risk of flooding and to propose suitable mitigation measures aside from simply avoiding all potential development of those areas.
- 4.4.2 Identification of the at risk localities will further support the targeted introduction of sustainable urban drainage (SUDS) measures in the borough, as there will be a global dataset from which to identify and prioritise funding and delivery of potential SUDS projects. Partnership working with Thames Water will further help to ensure this area of work can move from the broad programme level to a collection of identified and costed projects beyond the specific regeneration areas for which measures have been integrated into the individual planning approaches.
- 4.4.3 Thames Water are also delivering additional measures to prevent different kinds of flooding. They are currently investigating options to reduce the risk of flooding in Hendon Way, and hope to put in place a solution by 2015. Furthermore, as noted in the utilities section, they are completing works to prevent the risk of sewer flooding to 31 properties in the Barnet area.

4.5 Green Infrastructure – Next Steps

4.4.4 The following key green infrastructure projects have been identified as the new or emerging work streams requiring specific additional attention to ensure their future deliverability is secured or impacts acknowledged:

- **Energy** – Across public services, and particularly the Council needs to provide a joining-up role in terms of the relationship between the existing energy sector organisations, residents homes and workplaces and the way such interactions impact on public services. In an environment of increased energy security risks and global competition, as well as reduced public sector funding for traditional services, involvement in the following two agendas and maximisation of opportunities linked to the Green Deal and European funding sources through the London Green Fund and the London Energy Efficiency Fund could deliver both improved local revenue for council services and public benefit to the residents of Barnet:

- a) **Decentralised Energy** – Delivery of decentralised energy networks is a critical issue for the Mayor, for whom achievement of most of his emissions reduction target linked to heating buildings will need to be through delivery of decentralised networks in the more urbanised areas and where a mixture of local users is capable of sharing heat loads.

There is an opportunity to ensure that delivery of these new energy networks (pipework under the footway/carriageway) brings longer term reductions in road maintenance costs through cost-sharing the delivery process with existing utilities and the future providers.

- b) **Energy Efficiency** – A substantial step towards addressing carbon emissions would be to tackle the current poor thermal efficiency of existing homes in Barnet, where retrofitting is required to bring greater levels of thermal efficiency. At present only a few small programmes are in place to address this in the homes of the most vulnerable residents, but a further reaching and wider programme through partnership between utilities, households & the Council could address this matter at a wider scale.

5 Costing Required Infrastructure

5.1 The infrastructure costing process

- 5.1.1 The process of costing infrastructure for the IDP began with identifying project costs for recently delivered schemes of a similar infrastructure type, shown in the IDP as the green rows of projects delivered in the 2006-10 period. This helped to provide both a reality check for new project estimates as well as the ability to specifically compare planned project quality / complexity and the estimated costs with specific completed projects with known characteristics.
- 5.1.2 The cost figures in the IDP are a combination of 'unknown', 'estimated' (italicised) and 'known' project costs, it is important to recognise the differences so the accuracy of the data is clear and estimates for future costs are treated as such. For this reason the 'data source' column also provides information about the source of the data.
- 5.1.3 Where the infrastructure costs are highly variable between projects, delivery costs have been listed as 'unknown' until feasibility work is completed. A key challenge to delivery is to secure funding to complete such feasibility work. Cost estimation of less variable types of infrastructure have utilised benchmarking with recently delivered projects to aid with estimation.
- 5.1.4 A number of projects are newly identified, relating to types of infrastructure that historically were identified on a project-by-project basis once funding was secured rather than forward-planned and programmed for a specific time period; in some cases even the initial stages of feasibility / data gathering are incomplete and therefore project costs have needed to be labelled 'unknown'.
(Examples: Highways and Footways, Utilities, Health, Community, Sports & Recreation, Decentralised Energy, Flooding, Open Spaces)
- 5.1.5 In other infrastructure fields, partners have fully begun forward-planning the delivery of all key infrastructure projects and are now focused on delivery and the funding picture. For a number of these, the cost of delivering each project is broadly consistent, whilst for others an overarching funding envelope for changes has been agreed or the full cost of all projects is already known.
(Examples: Transport, Education Facilities, Emergency Services, Library Facilities, Waste Management).
- 5.1.6 After estimation or feasibility work each project has then been considered individually for the most appropriate means and approach to delivery; it is then fully costed to enable approval by project sponsors; at which point this 'known' (un-italicised) figure has then been incorporated into this IDP.

5.2 The total cost of required infrastructure in Barnet

- 5.2.1 The cost for infrastructure (critical, necessary and preferred) identified within the IDP with a known or estimated cost, has been identified to be circa £440m (+/- 5% to allow for errors and regular updates).
- 5.2.2 The IDP also includes about 230 projects with costs listed as 'unknown'. Of these projects, 113 are linked to the Brent Cross Cricklewood growth area where it is recognised that the total infrastructure funding requirement (including remediation) is just short of £1bn and these projects will all be fully-funded by the developer. The remaining projects currently of 'unknown' cost

are mostly due to be delivered post April 2016 or are 2011-16 period projects listed only as 'preferred'.

- 5.2.3 The remaining projects could cost in the region of £300-400m if the costs to deliver them were broadly similar to all projects with an estimated cost. *This figure must be used with caution as it is a guesstimate linked to known costs.*
- 5.2.4 Combining the three summarised figures gives a guesstimated infrastructure funding requirement in Barnet of approximately £1.8bn.

5.3 Ensuring 2011-16 infrastructure is deliverable

- 5.3.1 Chapter 6 will discuss the funding environment for infrastructure, but it must be born in mind that during a period of economic slowdown and government funding cutbacks it is unlikely that all required infrastructure will be deliverable within the short period of time in which it is thought to be required. Difficult choices will be required to ensure that development can continue whilst the impacts are mitigated as much as possible, but with the recognition there will be holes if additional sources of funding aren't secured.
- 5.3.2 With the funding environment in mind, it was decided that the Council should focus on deliverability of just the key priorities to support the Core Strategy; key priorities have been selected to be the 'critical' and 'necessary' projects identified within this IDP.
- 5.3.3 Figure 5 provides a summary of the total cost of each type of key priority local infrastructure during the 2011-16 period. This excludes the projects deemed to be of regional importance, but outside of local control in terms of delivery: Crossrail, Thameslink, Northern Line Upgrades, M25 Widening, A406 improvements at Bounds Green, as well as utilities core infrastructure such as the Abingdon Reservoir, Tideaway Tunnel, Mogden & Becton sewage treatment works, and electricity grid improvements above 33kV transformers.
- 5.3.4 The total infrastructure costs for 2011-16 are as follows:
- 23 critical physical infrastructure projects estimated to cost £53.5m
 - 19 critical social infrastructure projects estimated to cost £117.3m
 - 3 critical green infrastructure projects estimated to cost £0.3m
 - The total cost of all 45 critical infrastructure projects is: £171.1m
 - The total cost of all 33 necessary infrastructure projects is: £101m
- 5.3.5 Of the 49 uncostered projects, many relate to regeneration estates or growth areas where there is agreement that the developers or suppliers will deliver the facilities 'in-kind', 41 of these uncostered projects are therefore fully-funded.
- 5.3.6 Half of the 8 unknown cost and unfunded projects relate to open spaces infrastructure. Whilst the total investment is currently unknown, it is unlikely that any specific project will be of such a scale as to be unreasonable to deliver during the plan period and in any event, reviews or feasibility work is underway to complete feasibility work required to deliver that infrastructure.
- 5.3.7 *The total known cost of all required infrastructure for the 2011-16 period is £272m across 127 'critical' and 'necessary' planned projects.***

Figure 5 - The total 2011-16 cost of each 'critical' and 'necessary' item of local infrastructure

Type of infrastructure		Total cost of 'critical' local infrastructure	Total cost of 'necessary' local infrastructure	Combined cost of 'critical' & 'necessary'	No. fully-funded, projects of unknown cost	No. unfunded 'critical' & 'necessary' projects of unknown cost
Physical infrastructure						
Movement & Connectivity	Transport	£12,200,000	£0	£12,200,000	1	0
	Highways Network (Improvements)	£35,063,000	£75,278,000	£110,341,000	5	0
	Parking	£6,000,000	£0	£6,000,000	3	0
	Cycling and pedestrians	£250,000	£3,030,000	£3,280,000	5	0
Utilities	Electricity	confidential info	confidential info	£0	5	0
	Gas	confidential info	£0	£0	0	0
	Fresh Water	confidential info	£0	£0	0	0
	Foul/Waste Water	confidential info	£0	£0	0	0
	Telecoms	confidential info	£0	£0	1	0
Sub Total:		£53,513,000	£78,308,000	£131,821,000	20	0

Type of infrastructure		Total cost of 'critical' local infrastructure	Total cost of 'necessary' local infrastructure	Combined cost of 'critical' & 'necessary'	No. fully-funded, projects of unknown cost	No. unfunded 'critical' & 'necessary' projects of unknown cost
Social infrastructure						
Education Facilities	Higher / further	£0	£0	£0	1	2
	Secondary	£0	£600,000	£600,000	0	0
	Primary	£78,325,000	£0	£85,425,000	0	0
	Early years	£0	£0	£0	0	0
	Special	£0	£0	£0	0	0
Health	Secondary	£0	£0	£0	0	1
	Community hospitals	£33,000,000	£0	£33,000,000	0	0
	Primary care health centres	£3,000,000	£2,500,000	£5,500,000	0	0
	GPs	£0	confidential info	£0	0	0
	Social Care	£0	£2,145,000	£2,145,000	0	0
Emergency Services	Fire Service	£0	£0	£0	0	0
	Policing & Justice	£0	£0	£0	0	0
	Ambulance service	£0	£0	£0	0	0

Type of infrastructure		Total cost of 'critical' local infrastructure	Total cost of 'necessary' local infrastructure	Combined cost of 'critical' & 'necessary'	No. fully-funded, projects of unknown cost	No. unfunded 'critical' & 'necessary' projects of unknown cost
Community Facilities	Libraries	£0	£5,000,000	£5,000,000	0	0
	Specialised facilities	£0	£1,340,000	£1,340,000	0	0
	Shared-use facilities	£0	£2,600,000	£2,600,000	0	0
	Community offices	£0	£50,000	£50,000	0	0
	Other	£0	£0	£0	0	0
Open Spaces, Sport & Leisure	Sports Centres	£0	£834,000	£834,000	0	0
	Sports Pitches	£0	£2,650,000	£2,650,000	0	0
	Swimming Pools	£0	£0	£0	0	1
	Play facilities	£0	£405,000	£405,000	2	0
	Hard Landscaping	£2,800,000	£0	£2,800,000	2	0
	Parks	£188,000	£1,757,000	£1,945,000	1	2
	Natural Open Spaces and Green Chains	£0	£2,600,000	£2,600,000	1	0
	Biodiversity	£0	£0	£0	3	1
Sub Total:		£117,313,000	£22,481,000	£139,794,000	10	7

Green infrastructure						
Energy	Decentralised Energy	confidential info	£0	£0	4	0
	Energy Efficiency	confidential info	£0	£0	4	1
Waste	Waste Collection	confidential info	£0	£0	0	0
	Waste Management	£0	£0	£0	0	0
	Household Waste Recycling Centre	£0	£0	£0	0	0
Flooding	Fluvial Flood Prevention	£0	£0	£0	0	0
	Localised Flood Prevention	£343,000	confidential info	£343,000	3	0
Sub Total:		£343,000	£0	£343,000	11	1
TOTAL:		£171,169,000	£100,798,000	£271,967,000	41	8

6 Funding Mechanisms

6.1 The Funding Environment

6.1.1 Infrastructure delivery and its funding during the period 2006-2010 has been characterised by four key types of funding:

- Grant funding from central government was given to support the delivery of key social infrastructure projects, enabling a substantial level of delivery of educational, health and recreational facilities.
- Delivery of regeneration and growth areas have been supported through both Growth Areas Funding (GAF) which was mainly used to assist with major transport improvements required to unlock housing growth area.
- High levels of affordable housing grant to help subsidise the delivery of social rented and intermediate forms of affordable homes alongside the new private residential units.
- Private Finance Initiative (PFI) and Public Private Partnerships (PPP) to access private capital for programmes such as street lighting replacement and projects such as new hospitals where there will be a future revenue stream with which to pay back for the sums borrowed.

6.1.2 The impact of the Economic Downturn on infrastructure funding has been to impose the need for severe cutbacks to levels of public sector grant funding and to make the cost of borrowing from public-private type arrangements more expensive than was historically the case.

6.1.3 New approaches to infrastructure funding are required to address the reduced levels of these historic forms of funding, as well as innovative approaches to project delivery and cost control in order to reduce the overall level of required funding. If such approaches are not found, then it is likely that only the highest priority projects will ever be delivered and the overall sustainability of development will be questionable.

6.2 Planning Obligations

6.2.1 Planning Obligations have historically been the mechanism through which contributions towards required off-site community infrastructure have been made by new development. Traditionally this was in the main only utilised for large scale developments where the key impacts of the development would be quantified and a financial or in-kind delivery of improvements in the locality was arranged.

6.2.2 Circular 05/05 expanded the ability to use Planning Obligations through enabling the development of 'tariffs' to provide a flat rate charge per new unit delivered in a local area. Such use of Planning Obligations was always intended to be temporary until a new legislative framework for development contributions could be formally arranged.

6.2.3 Almost all current planning permissions in Barnet have associated planning obligations attached to the permission, most of which are triggered for payment at the point of commencement of development; although large scale developments have all contributions phased across the different stages of

development and a number of the smaller schemes have planning obligations deferral arrangements in place as a result of the flexible approach Barnet took through its “Responding To The Recession - Interim Guidance Note”.

- 6.2.4 The future income from planning obligations is shown in figure 6, which identifies a total of £12.2m in contributions as likely to be triggered during the 2011-16 period.

Figure 6 - The anticipated income 2011-16 from agreed planning obligations, does not list ‘in-kind’ obligations such as completed new community buildings.

Type of Obligation	Currently available unspent sum	Anticipated 2011-16 income from existing permissions
Public transport	£500,525	£692,000
Highways	£1,287,595	£1,550,050
Education	£4,056,200	£7,247,520
Health	£334,680	£1,069,180
Libraries	£90,526	£598,100
Community facilities	£12,834	£100,000
Parks, open spaces, sports and recreation	£1,144,362	£987,770
TOTAL:	£7,426,722	£12,244,620

- 6.2.5 The Community Infrastructure Levy (CIL) Regulations 2010 introduce a new legislative framework for Planning Obligations that replaces the role of tariffs as set out in Section 6.3 to this report. It limits the future use of any one type of Planning Obligation to up to 5 separate planning permissions from a baseline date of April 2010. The use of Planning Obligations will therefore be limited to use for only site-specific issues that need addressing from 4 April 2014 or such earlier time as a local CIL is adopted.

6.3 Community Infrastructure Levy

- 6.3.1 The planned timetable for introducing a local CIL in Barnet is January 2013. Drafting of the documentation is taking place July to December 2011, public consultation processes are timetabled for February 2012 to July 2012, with public examination expected to take place in October 2012.
- 6.3.2 A regional CIL is also due to be levied upon development by the Mayor of London to help support the delivery of Crossrail. In Barnet it is expected that a charge of £35 per m² will be levied on all development that is not affordable housing, education or healthcare facilities or built by and for charitable purposes. The introduction of any local CIL is legally required to account for how such a charge will impact on the area-wide viability of development.
- 6.3.3 A broad estimate of local CIL income is expected to be in the region of £10m-£20m during the 2011-16 period. Actual receipts will vary as there are three key factors likely to affect CIL income collection:

- Adoption of a local CIL from January 2013 will only affect subsequent planning permissions. Development on average commences at least a year after grant of planning permission as permission is valid for 3 years. CIL income is only triggered upon commencement or at specific points after that when agreed instalments become due.
 - The adoption of CIL is unlikely to have been factored into the financial preparations of all local developers, it is therefore expected that should the CIL charge be slightly higher than the previous combined cost of all planning obligation requirements, there might be a small dip in planning applications for a short period after the adoption of CIL (and a spike just before its adoption) and more developers utilising the full 3-year permission period to allow sales values to increase sufficiently to address previous land purchases that did not account for CIL costs.
 - The total amount of CIL income that may be spent in any one financial year cannot be greater than the income in the previous financial year, borrowing against future CIL income is not permitted, therefore an extra financial year will be required just to collect sufficient CIL income to permit expenditure of the money in subsequent years
- 6.3.4 The anticipated delays to receipt of CIL income is likely to mean that 2011-16 required infrastructure projects cannot rely on CIL as the only source of funding as this would cause delivery to slip to the 2016-21 period unless suitable alternative / interim sources of forward-funding can be used to enable earlier delivery of the specific projects. It is not legally permitted to borrow against anticipated future CIL income.

6.4 The Infrastructure Reserve

- 6.4.1 In November 2010 the Government launched the 'New Homes Bonus', an incentivisation mechanism that redistributes the former planning and housing delivery grant, as well as a top slice of the local government formula grant, to local authorities who can demonstrate delivery of additional homes in their local area in the past financial year. In 2011-12 Barnet will receive £1.5m, and it is anticipated that £19.1m will be received during the 2011-16 period.
- 6.4.2 In Barnet, all New Homes Bonus income has been allocated to an Infrastructure Reserve, this funding can therefore provide the temporary source of funding identified in paragraph 6.3.4 as being needed to forward-fund any CIL-related infrastructure ahead of the receipt of CIL funds from development. Together, through this infrastructure funding reserve, the CIL and New Homes Bonus funding will provide a flexible funding mechanism that should hopefully enable infrastructure delivery to take place even if funding from one sources is delayed or not fully secured.

6.5 Grants and Contributions

- 6.5.1 Of £10.4m Growth Areas Funding (GAF) received, £3.1m remains committed to projects but is currently unspent. £1.5m is allocated to contribute towards the circa £15m total remaining cost of new movement infrastructure needed in the Colindale area. £1m allocated towards the Granville Road Estate can be redirected towards other purposes through the Infrastructure Reserve if it proves not to be required. The remaining difference has been utilised to provide costing and feasibility work.

- 6.5.2 External funding for movement infrastructure comes in two main forms; direct delivery of projects by Transport for London such as at Henlys Corner, and through the Local Implementation Plan (LIP) which comprises of principal roads funding, a small discretionary budget, with the majority of funds tied to supporting neighbourhood, road corridor and integrated transport measures. LIP funding is only estimated up to March 2014, as allocations are only determined annually but agreed in principal for a 3 year period; the in principal estimated 3-year receipt is circa £14m.
- 6.5.3 For 2011-12 Barnet received £9m Basic Needs funding from the Department for Education to provide new primary and secondary school places. It is estimated that a similar level of grant funding will be provided in future years, providing a total of £36m over the period 2011 to 2015. Anticipated costs for the proposed primary and secondary expansions during 2011 to 2015 are approximately £78m.
- 6.5.4 The Mayor's Outer London Town Centres Fund has awarded £419k (of a £10m Round 1 pot) towards the delivery of improvements in Chipping Barnet Town Centre to give the area an immediate economic boost, but Edgware Town Centre was unsuccessful in the bidding process. Round 2 of the bidding for the remaining £40m will be determined in winter 2011/12 and longer term infrastructural projects are likely to be successful in this round. The Round 2 £4m bid included £1.33m lighting / public realm improvements to support the new Landmark Library in North Finchley, £620k town centre improvement / promotion measures in Edgware, and £2.17m bid for town centre and employment measures in Cricklewood Broadway. A conservative estimate is that Barnet will receive just over £2m.
- 6.5.5 Various small grants from philanthropic trusts may provide a way forward to enable delivery of a number of the local community and recreational facilities projects as well as some open spaces improvements, but at present no work has systematically taken place to seek out such types of grants.
- 6.5.6 The Local Government Resource Review is a current Government project that is looking at the possibility of enabling all or just a portion of the Business Rates collected by each Local Authority to be locally retained. With major retail facilities such as Brent Cross Shopping Centre operating in Barnet as well as a large number of small and medium-sized companies registered locally, Barnet as a place to live and work would stand to substantially gain from re-localisation; even if proposed stabilisation mechanisms are incorporated into the process. At present, though, it is not possible to quantify the level of such benefits as re-localisation would also spell an end to much if not all of the local government formula grant.
- 6.5.7 The final form of contribution is linked to the sale or leasing of existing assets held by the Local Authority, with the associated Capital Receipts being recycled towards funding the delivery of new infrastructure projects. The delivery of phase 1 of the programme of primary school expansions and temporary classrooms is underwritten by a potential contribution of £25.9m from Capital Receipts and Prudential Borrowing as required.

6.6 Leveraged Finance

- 6.6.1 Prudential Borrowing refers to the Council's permitted ability to borrow against its future capital funding allocation to enable delivery of projects. It is likely that the entire remaining Prudential Funding allowance will need to be ring-fenced towards the purchase of the Housing Revenue Account (HRA) from

the Government, the debt currently held against Barnet's existing housing assets. If the Council can take full ownership of both the value of its housing stock as well as associated maintenance programmes, then it is anticipated that an additional £15m annual income towards housing improvements / new homes can be found through restructuring of the debt position.

- 6.6.2 PFI and PPP arrangements have previously been utilised to enable delivery of the ongoing street lighting renewal programme, as well as some community facilities; but this approach is generally out of favour at present due to the cost of private sector borrowing, and therefore it is unlikely that any new projects will be approved using this mechanism in the immediate future.
- 6.6.3 The Local Improvement Finance Trust (LIFT) is the funding mechanism used by the NHS to bring a combination of private and public sector borrowing to support delivery of key infrastructure projects, managed by LIFTCo. In Barnet it has principally been used to deliver £28m funding to enable delivery of Finchley Memorial Hospital; it is also proposed as the financing mechanism for most forthcoming Primary Care Health Centre opportunities.
- 6.6.4 The London Green Fund (LGF) has been established by the London Development Agency to bring together European and regional funding sources to support two programmes aimed at generating the investment required to deliver new green waste and energy solutions:
- (i) The Foresight Environmental Fund is a revolving fund managed by Foresight Group LLP where circa £200m capital is proposed to be invested in projects over the next 3 years, of which £120m has already been programmed, (£50m LGF, £150m private investment).
 - (ii) The London Energy Efficiency Fund (LEEF) will be a £100m fund (£50m LGF, £50 private investment) focusing on energy efficiency retrofitting to adapt / refurbish public sector buildings including local authorities, universities, schools, hospitals and social housing.
- 6.6.5 Tax Increment Financing (TIF) is a new mechanism that is being developed by the Government to enable funding to be borrowed against receipt of future Business Rates. It is currently not finalised how this could sit alongside a process of re-localisation of business rates, but it has been promoted as of particular suitability and relevance to Enterprise Zones as a mechanism for forward-funding future infrastructure costs.
- 6.6.6 In Barnet, the most suitable option for a TIF mechanism would be to support the earlier delivery of the Brent Cross Cricklewood growth area (anticipated at present to take 20+ years), or to enable multiple phases of the development to go forwards in parallel. Given the proposed amount of new retail and office development, the scale of future business rates involved could alternatively enable a phase with key infrastructure items to be brought forwards at a time when anticipated rents for the associated commercial floorspace might not yet be sufficiently strong to enable more complex or risky phases of development to progress, or it may help in terms of cash flows by enabling a larger overall sum of money to be borrowed at any one moment in time than could be arranged by the development partners alone.

Figure 7 – Summary of available financing mechanisms and quantum where known

Funding Sources	Existing / Potential	Specified Purpose	Received Funding	Estimated Funding
(i) Grants and Equity				
Community Infrastructure Levy (CIL)	Potential	General	N/A	Unknown
Planning Obligations	Existing	Specified <i>(Various)</i>	£7.4m <i>(unspent)</i>	£12.2m
Local Investment Plan (LIP)	Existing	Transport & Movement	£4.6m <i>(2011-12)</i>	£9.2m <i>(2012-14)</i>
TfL Direct Investment	Existing	Specified <i>(TLRN)</i>	£8.3m <i>(2011-12)</i>	Unknown
Growth Area Funding (GAF)	Existing	General	£3.1m <i>(unapplied)</i>	N/A
Department for Education: “Urgent Pupil Places Funding”	Existing	Additional Classrooms	£9m <i>(2011-12)</i>	£27m <i>(2012-15)</i>
EU Grant: <i>Competitiveness and Innovation Programme (CIP) ICT Policy Support</i> <i>[€115m total funding pot – willing to contribute up to 50% of costs]</i>	Potential	ICT for energy eff. inclusion or innovative services	N/A	Unknown
EU Grant: <i>LIFE+</i> <i>[€267m total funding pot]</i>	Potential	Nature Conservation	N/A	Unknown
GLA Grant: <i>Green Grids</i>	Potential	Delivery of green grid priorities	N/A	Unknown
GLA Grant: <i>Outer London Fund (Town Centre Renewal)</i>	Existing	Revitalise Town Centre Economies	£0.4m	£2m
Small Grants (<50k)	Potential	Specified <i>(Various)</i>	Unknown	Unknown
Fees and Charges	Existing	Specified <i>(Various)</i>	Unknown	Unknown
Resource Review “Localisation of Business Rates”	Potential	General	Unknown	Unknown
Capital Receipts <i>[sale of existing assets where proceeds are available to help fund required infrastructure]</i>	Existing	Additional Classrooms	£13.3m	£6m

Funding Sources	Existing / Potential	Specified Purpose	Received Funding	Estimated Funding
(ii) Leveraged Finance				
Prudential Borrowing [This figure is for the 2009-10, projected maximum, future borrowing is currently unknown]	Existing	General	£35.9m	Unknown
Private Finance Initiative (PFI) / Public Private Partnership (PPP)	Existing	Street Lights & Leisure	N/A	Unknown
Local Improvement Finance Trust (LIFT)	Existing	Health Facilities	£28m <i>(Finchley)</i>	Forward-funding only
Foresight Environmental Fund	Existing	Waste	Unknown	Unknown
London Energy Efficiency Fund (LEEF)	Existing	Energy Efficiency	Unknown	Unknown
Sale and Leaseback	Potential	Social Facilities	Unknown	Unknown
Housing Revenue Account (HRA) <i>[£15m per annum anticipated saving but not for infrastructure]</i>	Potential	Housing Investment	N/A	£0
Tax Increment Financing (TIF)	Potential	General <i>(area-based)</i>	N/A	Unlikely 2011-16
Business Rates Supplements (e.g. via Business Improvement Districts or 'BIDs')	Potential	Commercial / Town Centre Improvement	Unknown	Unknown
(iii) Incentivisation Schemes				
New Homes Bonus	Existing	General	£1.5m <i>(2011-12)</i>	£17.6m <i>(2012-15)</i>
Sharing of additional transport fares after new development	Potential	Highways / Transport	Unknown	Unknown
(iv) Cost Reduction				
Asset Utilisation & Co-location	Existing	Community Facilities	Unknown	Unknown
Big Society assuming responsibility	Potential	Community Facilities	Unknown	Unknown
Maintenance costs / utility upgrade cost coordination.	Potential	Highways / Footways	Unknown	Unknown
TOTAL (known amounts):			£111.5m	£68.6m

6.7 Delivering projects

- 6.7.1 One approach that will also be used to help address this funding gap will be to value-engineer individual projects in relation to the total programme:
- *Project timing / nature* – re-evaluating each project to closely consider the standards, timing and level of need may enable value-engineering or identification of alternative contingency measures to address the issues.
 - *Co-location or co-delivery of projects* – where either projects of different infrastructure types are jointly delivered, or such separate projects are combined into a larger procurement programme to achieve cost savings.
- 6.7.2 An example of how the project timing could be re-evaluated would be for a 2011-16 project to be delayed either (i) providing that the impacts from such a delay are acknowledged and publicly accepted or (ii) where interim mitigation measures are delivered to manage the impacts of non-delivery of the full project in the short or medium term. This is an approach sometimes taken in relation to highways investment; one example is the current Henly's Corner half-hamburger scheme that delivers additional junction capacity to meet increased need for 10-15 years, but where long-term separation of through-traffic and interchange is required. In both situations a cost-benefit analysis and impacts assessment would be used to justify this change of approach.
- 6.7.3 Examples of how a project's nature could be re-evaluated would be for the criteria for delivery of a specific community centre, health centre or library, where proposed plans could be adjusted to use cheaper materials, alternative construction methods, or could reduce requirements in terms of the total volume of space delivered. Each of these changes would impact on future maintenance and the cost of running such a facility as well as the public perception of the facility and how much it is used by residents.
- 6.7.4 An example of how co-location or shared procurement can deliver project cost savings would be the example of primary school provision. Using historic project delivery costs, delivery of a 1FE expansion costs £3-5m, a new 2FE school costs £9-10m, a new 3FE school costs approximately £11.5-13m and a new 4FE school could cost about £14-16m; all dependent on the site-specific building costs as well as requirements in terms of incorporation of nursery, special and other educational support facilities. So where suitable sites with the right opportunities can be identified for joining together school projects, then the total cost to deliver those additional places could be cut compared to alternative options.
- 6.7.5 Delivery of all infrastructure projects will in part be secured through integration of this infrastructure delivery plan with the Council's capital programme, ensuring that delivery of the plan is a corporately held objective. The other key process supporting delivery of this infrastructure plan is the involvement of the key corporate project management boards in the governance and monitoring of project and programme delivery; namely the Regeneration Board, the Health and Wellbeing Board, as well as the Children and Young People's Safeguarding Board.

7 Conclusions

7.1 Collaboration

- 7.1.1 Understanding local required infrastructure and enabling its timely delivery will require a new level of co-operation and partnership working beyond that which current arrangements are achieving. It will likely need to involve both objective and cost sharing approaches to ensure the infrastructure of highest priority is delivered and other 'preferred' projects are also commenced.
- 7.1.2 In Barnet, the Council's One Barnet Programme targets precisely this level of co-operation and shared objective-setting and funding of projects, required to ensure a long-term successful set of relationships are maintained and ensuring that infrastructure can be both effectively planned and delivered.

7.2 Capital Programming for required infrastructure

- 7.2.1 Chapters 2-4 set out the detailed background and processes through which collaborative work has taken place to identify required Physical, Social and Green infrastructure projects. They provide improved forward-planning and show how the detailed understanding of required infrastructure projects has been developed. Appendix 1 lists all critical and necessary infrastructure projects required to ensure that Barnet's Local Development Framework is deliverable; these key projects will form the basis of a One Barnet 5-year capital programme, though a number of the preferred projects may also be added if they specifically relate to the Council's assets.
- 7.2.2 Every IDP project has been identified in terms of its level of priority, as:
- *Critical* Infrastructure mitigating for the significant borough wide impacts of multiple or a singular development where the impacts of change interrelate between regeneration areas, town centres and other growth areas.
 - *Necessary* Infrastructure mitigating for substantial borough wide impacts of change or local significant change linked to a single regeneration area, town centre or other growth area affecting service provision or statutory requirements
 - *Preferred* Infrastructure that will help to ensure that development or change across the borough is sustainable or that will help to address an existing substantial historic problem.

7.3 The Infrastructure Funding Gap

- 7.3.1 The total cost of delivering all required infrastructure in Barnet across the Development Plan period is estimated to be in the region of £1.8bn.
- 7.3.2 The total cost of all required infrastructure for the 2011-16 period is £272m across 127 'critical' and 'necessary' planned projects.
- 7.3.3 The total potential funding from all identified mechanisms in 2011-16 is £180m. This leaves a total Infrastructure Funding Gap of £92m for all required infrastructure during the 2011-16 period.

7.4 Ensuring that required infrastructure is deliverable

- 7.4.1 An infrastructure funding gap was anticipated to exist, but this gap of £95m will now require a careful review by all public services in Barnet to work together and re-evaluate all required projects within the IDP, through:
- a) Considering whether the impacts of not delivering specific infrastructure items could be deemed acceptable by:
 - o provision of an alternative infrastructure project, or
 - o considering whether any contingency measures could be put in place to temporarily address required needs and thereby allow delivery of the project to slip to a later time period, or
 - o accepting the risks resulting from non-delivery of a specific project and recognising publicly the reduction in service or network constraint
 - b) Reducing the cost to deliver some infrastructure projects through:
 - o co-location of facilities and services, or
 - o modification of the project specification / requirements, or
 - o reduction in the quality of the proposed provision
 - c) Delivering additional infrastructure funding through:
 - o alternative asset ownership / sharing arrangements to enable private / voluntary sector funding for this required infrastructure, or
 - o accessing funding from small grants and third sector trusts to support delivery of community infrastructure, or
 - o lobbying government for additional grant / borrowing capacity to enable required infrastructure to still be funded.
 - o Understanding the funding from sources currently listed as 'unknown' and identifying whether existing sources could contribute more.
- 7.4.2 Despite this £92m funding gap it is assumed that through the processes listed in 7.4.1 and value-engineering of individual projects where at present only cost estimates are in place, it is likely that all required infrastructure should be deliverable during the 2011-16 period.
- 7.4.3 In terms of the requirement to adequately consider delivery of infrastructure, the Council's Local Development Framework and its associated Core Strategy for consolidated growth are viewed to have fully considered all required infrastructure.
- 7.4.4 In terms of the deliverability of the Council's Local Development Framework, although all projects are not yet fully funded, it is viewed that the ongoing process of cost estimation and feasibility studies are laying solid foundations for revising infrastructure cost projections and securing funding. Furthermore, the surrounding processes in place relating to the integration of the IDP into the Council's Capital Programme, as well as the sharing of local public services budgets to support delivery of associated infrastructure, mean that the soundest possible progress is being made to ensure that required infrastructure will be delivered at the required time.

Appendix 1 - The Infrastructure Delivery Plan

Key

Each section begins with a summary of the general data quality and stage of the forward-planning for the required infrastructure, the sections are:

Physical	Social	Green
<i>Movement</i>	<i>Education</i>	<i>Energy</i>
<i>Utilities</i>	<i>Health</i>	<i>Waste</i>
	<i>Community facilities</i>	<i>Flooding</i>
	<i>Open spaces, sport and leisure</i>	
	<i>Emergency services</i>	

This published dataset only incorporates 'Critical' and 'Necessary' projects as these are the projects required to be delivered in order to ensure that the Core Strategy is deliverable and growth is acceptable. Projects listed as 'Preferable' are incorporated into the full dataset held by the local authority and their status will be monitored in case their level of priority changes due to changing circumstances.

Colour Coding:

- Rows highlighted in grey relate to information or assessments of 'expected needs' and the risk to delivery during a single period of the plan (a 5-year interval) or over the full 15-year period. These rows are listed before all the rows detailing the individual proposed infrastructure projects for the period.
- Rows highlighted in yellow represent new projects that have been added since the first IDP was published in October 2010.
- Cells that are blacked out contain commercially sensitive cost estimates from developers that are utilised by the local authority for forward-planning purposes and negotiations on project viability.

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

Need or Delivery	Primary Category	Secondary Category	Item	Delivery Partners	Delivery Mechanism (completed projects are highlighted in green - applies to all 2006-2010 projects)	Cost (italicised if estimate, blacked-out if commercially sensitive)	Risks / Contingency	Area (West / East)	Sub Area	Phase	Period (2006-2010, 2011-2015, 2016-2020, 2021-2025 post 2026)	Priority (Critical Necessary Preferred)	Core Strategy Policy Source	Data Source
	MOVEMENT	MOVEMENT	<p>TfL's Strategic Public Transport Capacity Study, their North London Highways Assessment Model (NoLHAM) and the Brent Cross Cricklewood, Mill Hill East and Colindale AAP Transport Assessments have all fed into development of this local understanding of required movement infrastructure to meet the needs of population change and growth. Requirements will be aligned with Barnet's Local Investment Plan and further work to focus and prioritise required infrastructure will be developed through co-ordination of arising opportunities and through development of studies relating to the A5 Edgware Road to ensure maximum efficiency of this key North West London to Luton Corridor.</p> <p>Provisional costing for Transport Infrastructure Improvements is notoriously difficult due to the unknown 'utilities factor' which can lead to sizable contingency allocations on the cost of identified work, therefore development of a detailed picture of the total delivery costs for movement infrastructure many require a number of 'feasibility studies' for particular locations in order to improve the accuracy of the estimates in this plan.</p>											
Need	Movement	Passenger Transport	Natural and planned increases to Barnet's population require additional public transport capacity.				Failure to deliver additional capacity will lead to increased road congestion and severe peak rail and tube congestion.				2011-2015			
Delivery	Movement	Passenger Transport	Northern Line - 1st Upgrade: 20% capacity increase and 18% faster journey times (additional trains; upgraded signalling; upgrading track...etc)	TfL	TfL	[£912m]	If not delivered then passenger conditions will be unacceptable and peak congestion will lead to modal shift away from Public Transport use for those commuting to Central London.	All	N/A	N/A	2011-2015	Critical	CS09	Mayor's Transport Strategy (Dated 10/05/2010)
Delivery	Movement	Passenger Transport	Thameslink Line Capacity Enhancement. (16 trains per hour + train lengthening)	Network Rail, First Capital Connect	First Capital Connect	[£2,395m]	Existing peak extreme congestion continued plus added pressure from growth in Colindale and Brent Cross	All	N/A	N/A	2011-2015	Critical	CS09	Mayor's Transport Strategy (Dated 10/05/2010)
Need	Movement	Passenger Transport	New Southgate Railway Station (improvements to interchange inc. taxi and cycle parking)	Network Rail, First Capital Connect, LB Enfield	New Southgate AAP (Enfield Developer Contributions)	[Unknown]	Poor quality & less safe station environment, access and overall transport usage.	East	N/A	N/A	2011-2015	Necessary	CS09	LB Enfield: New Southgate Draft Masterplan - part of the forthcoming North Circular Area Action Plan http://consult.enfield.gov.uk/portal/new_southgate_draft_masterplan/new_southgate_draft_masterplan?pointId=1268771996467#section-1268771996467
Need	Movement	Passenger Transport	North London Business Park - Improved bus and pedestrian connectivity.	LBB, Developer Partner, London Buses	Developer Contributions linked to redevelopment	Feasibility & costing work required	Maximised use of space on the site through development will require significant modal shift in travel behaviour.	East	NLBP	N/A	2011-2015	Necessary	CS09	Environment & Operations (20/07/2010)
Delivery	Movement	Passenger Transport	Station Square - Colindale (transport interchange)	Fairview, LBB	Funded by developer of Colindale Hospital	£2,200,000	Poor quality gateway leading to the failure of the Colindale project & public realm	West	AAP: Colindale	Colindale Hospital (phase 1)	2011-2015	Critical	CS09	S106 Agreement requirements for Colindale Hospital (planning application ref. H/00342/09) and Station House (planning application ref. H/00343/09)
Delivery	Movement	Passenger Transport	Colindale Underground Station (external structure)	Developers, TfL	Funded by developer of Colindale Hospital Hotel Site Developer	Directly delivered by developer	Poor quality station building & lack of image transformation of key Colindale gateway.	West	AAP: Colindale	Colindale Hospital (phase 1)	2011-2015	Critical	CS09	S106 Agreement requirements for Colindale Hospital (planning application ref. H/00342/09) and Station House (planning application ref. H/00343/09)

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Delivery	Movement	Passenger Transport	Colindale Tube Station (step-free access)	TfL	Funded by Developer Contributions and TfL	£8,800,000	Poor public transport accessibility for residents & residents of new development	West	AAP: Colindale	N/A	2011-2015	Critical	CS09	Colindale Station Step Free Access Study - January 2011
Delivery	Movement	Passenger Transport	New Bus Route (Colindale - Finchley Central)	Developers, LBB, London Buses	Funded by developer contributions and London Buses	£1,200,000	Insufficient penetration of public transport through AAP area to support mode shift.	West	AAP: Colindale	N/A	2011-2015	Critical	CS09	Colindale AAP - Policy 3.3 and 8.3 and S106 Agreements for Colindale hospital (planning application ref. W/01731/JS/04) + Grahame Park Estate (planning application ref. W/01731/JS/04).
Need	Movement	Passenger Transport	Planned increases to Barnet's population will require additional public transport capacity.				Failure to deliver additional capacity will lead to increased road congestion and severe peak rail and tube congestion.				2016-2020			
Delivery	Movement	Passenger Transport	Thameslink Line Capacity Enhancement. (24 trains per hour - uncertain if this can be reliably delivered)	Network Rail, First Capital Connect	First Capital Connect	costed under Thameslink	Future peak time congestion anticipated plus added pressure from growth in Colindale and Brent Cross	All	N/A	N/A	2016-2020	Necessary	CS09	Mayor's Transport Strategy (Dated 10/05/2010)
Delivery	Movement	Passenger Transport	Great Northern Line change of usage on 2 lines Alexandra Palace to Finsbury Park = improved services	DfT, Network Rail, First Capital Connect	Unfunded TfL Programme	£45.1m	Lost opportunity to reduce extreme peak time crowding experienced by Barnet residents travelling towards Finsbury Park and Moorgate.	All	N/A	N/A	2016-2020	Necessary	CS09	Mayor's Transport Strategy (Dated 10/05/2010)
Delivery	Movement	Passenger Transport	Northern Line - 2nd Upgrade: 20% extra capacity (additional trains; enhancement of Camden Town station through improved platforms, points and interchange tunnels)	TfL	TfL	£312m	If not delivered then peak capacity will quickly become unacceptable, particularly on the Edgware Branch due to natural & additional housing related population growth.	All	N/A	N/A	2016-2020	Critical	CS09	Mayor's Transport Strategy (Dated 10/05/2010)
Delivery	Movement	Passenger Transport	New Bus Route (Burnt Oak / Mill Hill, East-West route)	Developers, LBB, London Buses	Funded by developer contributions and London Buses	Feasibility & costing work required	Insufficient penetration of public transport through AAP area to support mode shift.	West	AAP: Colindale	TBC	2016-2020	Critical	CS09	Colindale AAP - Policy 3.3 and 8.3
Delivery	Movement	Passenger Transport	Unspecified Bus Route Changes (redirected through AAP area)	London Buses, Inglis Consortium	Developer obligation - (MHE Consortium)	Feasibility & costing work required	Insufficient penetration of public transport through AAP area, especially in early phases to support mode shift.	East	AAP: Mill Hill East	TBC	2016-2020	Critical	CS09	Mill Hill East AAP Policy MHE12
Delivery	Movement	Passenger Transport	Cricklewood Railway Station (interchange)	BXC Partners, Network Rail, TfL	Funded by BXC consolidated transport fund		Failure to encourage mode shift to make traffic acceptable	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Passenger Transport	Brent Cross Underground Station (interchange)	BXC Partners, TfL	Funded by BXC consolidated transport fund	Feasibility & costing work required	Failure to encourage mode shift to make traffic acceptable	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Passenger Transport	Templehof Bridge: new road link over North Circular (A406)	BXC Partners, TfL	Funded by BXC Partners		Inadequate highways capacity leading to traffic congestion	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Passenger Transport	Bus Subsidies	BXC Partners, TfL	Funded by BXC consolidated transport fund	£4,300,000	Insufficient access to public transport through BXC area to support mode shift.	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Passenger Transport	Brent Cross Bus Station (temp. improvements)	BXC Partners, TfL	Funded by BXC Partners		Required to make development in phase 1 acceptable	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)

Infrastructure Delivery Plan
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Delivery	Movement	Passenger Transport	Mill Hill East Underground Station (step-free access)	TfL	Unfunded	Feasibility & costing work required (In the region of £3,000,000)	Poor public transport accessibility for residents & residents of new development	East	AAP: Mill Hill East	TBC	2016-2020	Critical	CS09	Mayor's Transport Strategy (Dated 10/05/2010)
Delivery	Movement	Passenger Transport	Mill Hill East Underground Station (bus interchange)	London Buses, TfL and Inglis Consortium	Funded by developer of Mill Hill East	Feasibility & costing work required	Unfunded- feasibility & funding (linked to development) will determine. If not delivered, transport less accessible	East	AAP: Mill Hill East	TBC	2016-2020	Critical	CS09	Mill Hill East AAP Policy MHE12
Need	Movement	Passenger Transport	Planned increases to Barnet's population will require additional public transport capacity.				Failure to deliver additional capacity will lead to increased road congestion and severe peak rail and tube congestion.				2021-2025			
Delivery	Movement	Passenger Transport	Bus service subsidies and improvements in West Hendon	Baratt's, TfL (London Bus Services Ltd)	Developer Contribution	£240,000	Widening of A5 and increased population requires replacement bus shelters and improvements to services	West	West Hendon Estate	TBC	2021-2025	Critical	CS09	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Movement	Passenger Transport	Brent Cross Bus Station (replacement of existing bus interchange)	BXC Partners, TfL	Funded by the BXC Development Partners		Inability to redevelop the existing bus station site without replacement provided	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Passenger Transport	Brent Cross Underground Station (step-free access)	BXC Partners, TfL	Funded by BXC consolidated transport fund	Feasibility & costing work required	BXC site less accessible to those with access problems	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Passenger Transport	Cricklewood Railway Station (step-free access)	BXC Partners, LBB, Network Rail, TfL	Funded by BXC consolidated transport fund	Feasibility & costing work required	BXC site less accessible to those with access problems	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Passenger Transport	Colindale Underground Station (booking hall + barriers)	TfL	Funded by Developer Contributions and TfL	Included within step free access cost	Potential overcrowding of Colindale station in later phases of development	West	AAP: Colindale	Peel Centre West	2021-2025	Critical	CS09	Mayor's Transport Strategy (Dated 10/05/2010)
Delivery	Movement	Passenger Transport	Bus subsidies	BXC Partners, TfL	Funded by BXC consolidated transport fund	£7,200,000	Insufficient access to public transport through BXC area to support mode shift.	West	Brent Cross Cricklewood	4	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Passenger Transport	Brent Cross Railway Station (station)	BXC Partners, Network Rail	Funded by BXC Partners		Failure to encourage mode shift within the commercial district to make traffic acceptable	West	Brent Cross Cricklewood	5	post 2026	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Passenger Transport	Brent Cross Railway Station (interchange)	BXC Partners, Network Rail	Funded by BXC Partners		Failure to encourage mode shift within the commercial district to make traffic acceptable	West	Brent Cross Cricklewood	5	post 2026	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Movement	Goods Transport	To reduce road network congestion, road-rail freight interchange would be beneficial				Failure to deliver BXC project in its entirety would lose this opportunity for extra capacity				2021-2025			
Delivery	Movement	Goods Transport	Rail Freight Facility	BXC Partners, TfL	Funded by BXC Partners		It is one of six identified strategic freight/rail transfer points and therefore important to delivering freight modal shift	West	Brent Cross Cricklewood	4	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010) and Mayor's Transport Strategy (dated 10/05/2010)
Delivery	Movement	Goods Transport	New MML Train Stabling Facility	BXC Partners, Network Rail	Funded by BXC Partners		Required to enable Phase 4 and new MML station.	West	Brent Cross Cricklewood	4	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Need	Movement	Highways	Projected population & travel behaviour will likely need capacity changes in key road network linkages and junctions.				Failure to deliver additional capacity will lead to increased road congestion or a spread to increased use of minor roads				2011-2015			
Delivery	Movement	Highways	M25 J16-23 [M40-A1] Widening to Dual 4 Lane in stages: 2009-2012	Highways Agency	Highways Agency	[£697m]	Additional pressure on A406 from some orbital movement, also potential for additional orbital journeys switching and causing congestion on key A & B class roads to avoid M25 congestion hotspots.	West	N/A	N/A	2011-2015	Critical	CS09	http://www.highways.gov.uk/roads/projects/5747.aspx - envisaged costs on 06/03/08, parliamentary response to question from Norman Baker: http://www.highways.gov.uk/roads/21788.aspx
Delivery	Movement	Highways	M25 J23-27 [A1-M11] Implementation of Managed Motorway scheme through Hard Shoulder Running (enabling dual 4 Lanes) delivered 2012-2015	Highways Agency	Highways Agency	[£419m]	Additional pressure on A406 from some orbital movement, also potential for additional orbital journeys switching and causing congestion on key A & B class roads to avoid M25 congestion hotspots.	West	N/A	N/A	2011-2015	Critical	CS09	http://www.highways.gov.uk/roads/projects/5743.aspx - envisaged costs on 06/03/08, parliamentary response to question from Norman Baker: http://www.highways.gov.uk/roads/21788.aspx
Need	Movement	Highways	A110 / A411 Corridor (Current issues and works feasibility study)	LBB	Local Implementation Plan	£475,000	Orbital travel needs assessing to identify congested and unsafe sections and suggest suitable measures	All	N/A	N/A	2011-2015	Critical	CS09	Local Implementation Plan (2010)
Need	Movement	Highways	A109 / A5109 Corridor (Current issues and works feasibility study)	LBB	Local Implementation Plan	£400,000	Orbital travel needs assessing to identify congested and unsafe sections and suggest suitable measures	All	N/A	N/A	2011-2015	Critical	CS09	Local Implementation Plan (2010)
Need	Movement	Highways	A1003-(A598)-A504 Corridor (Current issues & feasibility study)	LBB	Local Implementation Plan	£615,000	Orbital travel needs assessing to identify congested and unsafe sections and suggest suitable measures	All	N/A	N/A	2011-2015	Critical	CS09	Local Implementation Plan (2010)
Delivery	Movement	Highways	Spur Road Roundabout (A41) Edgware Way / Spur Road	LBB, TfL	s106 contribution from developer of Stonegrove Estate	£165,000	Inadequate highways capacity leading to significant extra traffic congestion	West	Stonegrove and Spur Road Estate	TBC	2011-2015	Necessary	CS09	Stonegrove and Spur Road Planning Application (ref. W/13582/E/07)
Delivery	Movement	Highways	Watford Way (A41) / Aerodrome Road (1st phase)	TfL, LBB	Funded by developer of Beaufort Park and Grahame Pk Estate	£298,000	Insufficient capacity at junction between Colindale, Middx Uni and Strategic A41 route, leading to greater congestion.	West	AAP: Colindale	Grahame Park (phase 1b)	2011-2015	Critical	CS09	Colindale AAP - Package 1 Highways Infrastructure
Delivery	Movement	Highways	A41 / Queens Road 'Hendon Quadrant'	TfL, LBB	Unfunded	£10,000,000	Increase to existing delays at the junction	West	N/A	N/A	2011-2015	Necessary	CS09	Identified from TfL's NoLHAM model
Delivery	Movement	Highways	A406 North Circular / Golders Green Road (cut and cover scheme)	TfL	Unfunded	£60,000,000	Increase to existing delays at the junction	West	N/A	N/A	2011-2015	Necessary	CS09	Identified from TfL's NoLHAM model - cost information from 2004 TfL Review
Delivery	Movement	Highways	"Henly's Corner" A406 North Circular / A1 Great North Way / A598 Finchley Road ("Half-Hamburger" - temporary measure pending major scheme)	TfL	TfL	£8,300,000	Continued effects of severe congestion if not delivered - particularly in the medium term	West	N/A	N/A	2011-2015	Critical	CS09	Transport for London Website: http://www.tfl.gov.uk/corporate/projects/andschemes/11571.aspx

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Need	Movement	Highways	Edgware Road (A5) Corridor Study	BXC Partners, TfL	Funded by BXC Partners		Radial travel and distributor road network needs assessing to identify areas at risk of congestion and suggest suitable transport measures	West	Brent Cross Cricklewood	Planning	2011-2015	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	A5 / Estate Network / Stonegrove	LBB, Baratt's	Funded by developer of Stonegrove Estate	In Kind	Traffic distribution from estate requires this new link to connect in effectively with the wider road network	West	Stonegrove and Spur Road Estate	TBC	2011-2015	Necessary	CS09	Stonegrove and Spur Road Planning Application (ref. W/13582/E/07)
Delivery	Movement	Highways	New estate road network / Kings Drive	LBB, Baratt's	Funded by developer of Stonegrove Estate	In Kind	Potential queuing to enter or exit the new development onto the strategic road network	West	Stonegrove and Spur Road Estate	TBC	2011-2015	Necessary	CS09	Stonegrove and Spur Road Planning Application (ref. W/13582/E/07)
Delivery	Movement	Highways	A5 Edgware Road / A5109 Deansbrook Rd (LIP corridor study)	LBB	Unfunded	£3,500,000	Increased delays at the junction	West	N/A	N/A	2011-2015	Necessary	CS09	Identified from TfL's NoLHAM model
Delivery	Movement	Highways	A5 Edgware Road / Montrose Avenue	LBB	Funded by developer contributions	£1,000,000	This junction is likely to become more congested if extra capacity is not delivered	West	AAP: Colindale	Unknown	2011-2015	Critical	CS09	Colindale AAP - Package 1 Highways Infrastructure
Delivery	Movement	Highways	A5 Edgware Road / Colindale Avenue	LBB	Funded by developer contributions	£1,000,000	As a key gateway into Colindale this junction will become significantly more congested if additional capacity is not delivered	West	AAP: Colindale	Colindale Hospital (phase 1)	2011-2015	Critical	CS09	Colindale AAP - Package 1 Highways Infrastructure
Delivery	Movement	Highways	Realignment of Lanacre Avenue	LBB	Funded by developer of Grahame Pk Estate	Directly delivered by developer	Without the creation of this new route, the Grahame Park Planning Application cannot be implemented.	West	AAP: Colindale	Grahame Park (phase 1-4)	2011-2015	Critical	CS09	Colindale AAP - Policy 4.4 and Grahame Park Planning Application (ref. W/01731/JS/04)
Delivery	Movement	Highways	Aerodrome Road / Colindale Avenue / Lanacre Avenue / Grahame Park Way	Developers, LBB	Developer land swap and contributions	£4,500,000	As the key junction in Colindale it will become significantly more congested if additional capacity is not delivered	West	AAP: Colindale	Middx Uni Halls Site & Peel Centre West	2016-2020	Critical	CS09	Colindale AAP - Package 2 Highways Infrastructure
Delivery	Movement	Highways	New Avenue linking Lanacre Avenue and Grahame Park Way	Developers, LBB	Funded by developer of Grahame Pk Estate	Directly delivered by developer	This junction is likely to become more congested if extra capacity is not delivered	West	AAP: Colindale	Grahame Park (phase 3b)	2011-2015	Critical	CS09	S106 Agreement requirements for Grahame Park Estate (Planning Application ref. W/01731/JS/04)
Delivery	Movement	Highways	Bunns Lane / Grahame Park Way	Developers, LBB	Funded by developer of Grahame Pk Estate	£565,000	This junction is likely to become more congested if extra capacity is not delivered	West	AAP: Colindale	Grahame Park (phase 3b)	2011-2015	Critical	CS09	S106 Agreement requirements for Grahame Park Estate (Planning Application ref. W/01731/JS/04)
Delivery	Movement	Highways	A406 / A109 Station Road (Olympics) improvements	TfL, LB Enfield	TfL - cost for entire A406 improvements Bounds Green to Connaught Gdns	£23m	Whilst over the boundary from Barnet, improvements here enable development on A109	East	N/A	N/A	2011-2015	Critical	CS09	Mayor's Transport Strategy (Dated 10/05/2010)
Delivery	Movement	Highways	Strategic East-West Road through AAP site	LBB, Inglis Consortium	Funded by developer of Mill Hill East	£12,000,000	East-West distribution of travel will be compromised and pressure on existing congested junctions increased	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS09	Route required under Mill Hill East AAP Policy MHE10 - Costing figure listed in Barnet Finance Plan Report
Delivery	Movement	Highways	Improvements to Bittacy Rise / Pursley Road / Engel Road	LBB, Inglis Consortium	Funded by developer of Mill Hill East	Directly delivered by developer	Pressure on existing congested junction increased	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS09	Route required under Mill Hill East AAP Policy MHE11 - Costing figure listed in Barnet Finance Plan Report
Delivery	Movement	Highways	Improvements to Bittacy Hill, Frith Lane & Holders Hill Circus	LBB, Inglis Consortium	Funded by developer of Mill Hill East	£5,000,000	Pressure on existing congested junction increased	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS09	Route required under Mill Hill East AAP Policy MHE11 - Costing figure listed in Barnet Finance Plan Report

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Need	Movement	Highways	A1000 Corridor Study (Current issues & feasibility study)	LBB	Local Implementation Plan	£710,000	Radial travel needs assessing to identify congested and unsafe sections and suggest suitable measures	East	N/A	N/A	2011-2015	Critical	CS09	Local Implementation Plan (2010)
Delivery	Movement	Highways	A1000 Great North Rd / Underhill and Mays Lane / Barnet Lane junctions (A110 LIP corridor study)	LBB, Developer Partner	Funded by Dollis Valley Estate developers	£1,200,000	Additional peak time congestion when Dollis Valley and others sites redeveloped should be carefully considered and mitigation put in place should these be required.	East	Dollis Valley Estate	TBC	2011-2015	Necessary	CS09	Dollis Valley competitive dialogue information shared with bidders in 2011
Need	Movement	Highways	Highway Improvements identified by & linked to School Travel Plans	LBB	Local Investment Plan, LBB	£300,000	Unsafe highway environments & congestion issues around some schools in the borough	All	N/A	N/A	2011-2015	Necessary	CS09	Local Implementation Plan (2010)
Need	Movement	Highways	Highway Improvements identified by & linked to specific accessibility cases and issues	LBB	Local Investment Plan, LBB	£100,000	Lack of appropriate accessible parking spaces near houses of specific residents and other key locations.	All	N/A	N/A	2011-2015	Necessary	CS09	Local Implementation Plan (2010)
Need	Movement	Highways	Projected population & travel behaviour will need capacity changes in key road network linkages and junctions.				Failure to deliver additional capacity will lead to increased road congestion or a spread to increased use of minor roads				2016-2020			
Delivery	Movement	Highways	A41 Watford Way / Aerodrome Road (2nd phase)	TfL, LBB	Funded by developer of Grahame Pk Estate	£925,000	Insufficient safety & capacity between Colindale, Middx Uni and Strategic A41 route, leading to greater congestion.	West	AAP: Colindale	Grahame Park (phase 1b)	2016-2020	Critical	CS09	Colindale AAP - Package 1 Highways Infrastructure
Delivery	Movement	Highways	"The Quadrant" Brent Street Town Centre (inc. pedestrian safety)	LBB	Unfunded	Feasibility & costing work required	Potential additional peak time congestion & reduced public transport speeds	West	N/A	N/A	2016-2020	Necessary	CS06 & CS09	Identified through LIP corridor study
Delivery	Movement	Highways	Colindale Avenue (transformation into tree-lined high street, two sections at ~£2m each)	LBB	Funded by developer contributions & GAF, also requires land swaps and land take	£4,200,000	Without improvement, traffic on Colindale Av will be worse, & transformation of Colindale 'as a place to be' is limited.	West	AAP: Colindale	Various Phases	2016-2020	Critical	CS09	Colindale AAP - Package 2 Highways Infrastructure
Delivery	Movement	Highways	"Peel Access Link" A51050 Colindeep Lane - Aerodrome Road - passing under tube line	Met Police - Barnet, LBB, Developer	Funded by developer of Peel Centre Site	Directly delivered by developer	entry points into Colindale could be unacceptable with development at the Peel Centre	West	AAP: Colindale	Peel Centre East	2016-2020	Critical	CS09	Colindale AAP - Package 3 Highways Infrastructure
Delivery	Movement	Highways	A5 Edgware Road / A504 Station Road / Perryfield Way gyratory (A5 capacity and safety improvements)	Baratt's, LBB	Funded by developer of West Hendon Estate	£10,500,000	Delivery of increased A5 capacity is required to support West of Borough growth. Without extra capacity growth will add to existing congestion	West	West Hendon Estate	TBC	2016-2020	Critical	CS09	West Hendon Estate Planning Application (ref. W13937/04), cost estimate is linked to West Hendon Masterplan Review. Original feasibility work identified scheme cost of £12.6m
Delivery	Movement	Highways	A504 Station Road (road widening and LIP corridor study)	Baratt's, LBB	Funded by developer of West Hendon Estate	£180,000	Required to avoid increased traffic congestion along A504	West	West Hendon Estate	TBC	2016-2020	Critical	CS09	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Movement	Highways	A5 Edgware Road / Cool Oak Lane	Baratt's, LBB	Funded by developer of West Hendon Estate	Costings to be included in A5 widening	if not delivered pedestrian safety compromised & congestion from Colindale & BXC would be unacceptable	West	West Hendon Estate	TBC	2016-2020	Necessary	CS09	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Movement	Highways	A5 Edgware Road / Garrick Road	Baratt's, LBB	Funded by developer of West Hendon Estate	Costings to be included in A5 widening	if not delivered congestion from Colindale & BXC would lead to increased delays	West	West Hendon Estate	TBC	2016-2020	Necessary	CS09	West Hendon Estate Planning Application (ref. W13937/04)

Infrastructure Delivery Plan

(Delegated Powers Report - November 2011)

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Delivery	Movement	Highways	A5 Edgware Road / New Link Road 1	Baratt's, LBB	Funded by developer of West Hendon Estate	Costings to be included in A5 widening	Only a risk if development proceeds and junctions not delivered, else not required.	West	West Hendon Estate	TBC	2016-2020	Necessary	CS09	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Movement	Highways	A5 Edgware Road / New Link Road 2	Baratt's, LBB	Funded by developer of West Hendon Estate	Costings to be included in A5 widening	Only a risk if development proceeds and junctions not delivered, else not required.	West	West Hendon Estate	TBC	2016-2020	Necessary	CS09	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Movement	Highways	"Mid Level Junction" A41 Watford Way / A406 North Circular	BXC Partners, TfL	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	"Brent Cross Junction" A406 North Circular (direct Ingress/Egress)	BXC Partners, TfL	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	A5 Edgware Road / Humber Road / Geron Way (Access to waste handling facility)	BXC Partners, TfL	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable in transport terms	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	A5 Edgware Road / A407 Cricklewood Lane & Chichele Road	BXC Partners, TfL, LBB	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Claremont Road North Junction	BXC Partners, TfL, LBB	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Claremont Avenue / Tiling Road	BXC Partners, TfL, LBB	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	A407 Cricklewood Lane / Claremont Rd	BXC Partners, TfL, LBB	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Diversion of 'Prince Charles Drive'	BXC Partners, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Tiling Rd Improvements (West of Whitefield Av)	BXC Partners, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Creation of new road 'Claremont Avenue'	BXC Partners, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Creation of new road 'Claremont Park Road 1'	BXC Partners, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Junctions connecting existing estate and surrounding network will need reviewing (will require suitable mitigation measures)	LBB, Developer Partner	Funded by Dollis Valley Estate developers	Unknown	There will be constrained public transport opportunities affecting redevelopment, as well as estate access and egress issues if not holistically and broadly considered.	East	Dollis Valley Estate	TBC	2016-2020	Necessary	CS09	Dollis Valley competitive dialogue information shared with bidders in 2011
Delivery	Movement	Highways	A598 Ballards Lane / Nether Street (LIP corridor study)	LBB	Unfunded	Feasibility and costing of various options required	Potential additional peak time congestion & reduced public transport speed unless bridge and junction capacity can be delivered. Will become a critical issue by 2021.	East	Town Centre Finchley Church End	N/A	2016-2020	Necessary	CS06 & CS09	Identified by tfl's NoLHAM model

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Need	Movement	Highways	Projected population & travel behaviour will likely need capacity changes in key road network linkages and junctions.				Failure to deliver additional capacity will lead to increased road congestion or a spread to increased use of minor roads				2021-2025			
Delivery	Movement	Highways	"Staples Corner" M1 (Junction 1) / A406 North Circular / A5 Edgware Road (inc. pedestrian bridge)	BXC Partners, LBB, TfL	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	A41 Watford Way / Whitefield Avenue	BXC Partners, LBB, TfL	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	High Street North of North Circular Road	BXC Partners, TfL	Funded by BXC Partners		Required in order to assist make BXSC part of an external facing Town Centre	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	High Street South of North Circular Road	BXC Partners, TfL	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Creation of new road 'Whitefield Street'	BXC Partners, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Tiling Rd Improvements (East of Whitefield Av)	BXC Partners, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Creation of new road 'Claremont Park Road 2'	BXC Partners, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Creation of new road 'Whitefield Avenue'	BXC Partners, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Claremont Road South Junction	BXC Partners, TfL, LBB	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	4	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	A5 Edgware Road / Rail Freight Facility	BXC Partners, TfL	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	4	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Movement	Highways	Projected population & travel behaviour will need some capacity changes in key nodes and could deliver benefits in others.				NoLHAM model has an final year of 2031 and intermediate year of 2016, therefore the priority of nodes during the interim will require localised consideration of need.				post 2026			
Delivery	Movement	Highways	A41 Watford Way / Edgwarebury Lane	TfL, LBB	Unfunded	TBC	Risk of Increased delays at the junction	West	N/A	N/A	post 2026	Necessary	CS09	Identified from TfL's NoLHAM model
Delivery	Movement	Highways	Canons Corner' junction further capacity improvements	LBB	TBC	TBC	Risk of Increased delays at the junction	West	N/A	N/A	post 2026	Necessary	CS09	Identified from TfL's NoLHAM model
Delivery	Movement	Highways	A5 / Kingsbury Road / Rookery Way (A5 corridor capacity)	LBB	Unfunded	TBC	NoLHAM model flagged increased delays by 2031, so needs to be considered holistically within any A5 corridor study proposals.	West	N/A	N/A	post 2026	Necessary	CS09	Identified from TfL's NoLHAM model

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Movement	Highways	Bridge Link from A5 to Spine Road over MML	BXC Partners, TfL	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	5	post 2026	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Spine Road North of MML Link Bridge	BXC Partners, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	5	post 2026	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Spine Road South of MML Link Bridge	BXC Partners, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	5	post 2026	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	A5 Edgware Road / MML Link Bridge Jctn (inc. works to Oxgate Gdns & Dollis Hill Lane)	BXC Partners, TfL, LBB	Funded by BXC Partners		Inadequate highways capacity leading to significant extra traffic congestion	West	Brent Cross Cricklewood	5	post 2026	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Highways	Gravel Hill / Church Road Improvements	LBB	Funded by Middlesex University developer contributions	TBC	Potential additional peak time congestion & reduced public transport speeds	West	N/A	N/A	post 2026	Necessary	CS09	Identified from TfL's NoLHAM model
Delivery	Movement	Highways	A1 / Bishops Avenue	TfL, LBB	Unfunded	TBC	Increased delays at the junction	West	N/A	N/A	post 2026	Necessary	CS09	Identified from TfL's NoLHAM model
Delivery	Movement	Highways	Bishops Avenue / Hampstead Lane	LBB	Unfunded	TBC	NoLHAM model flagged increased delays by 2031, so some improvements may need to be considered	West	N/A	N/A	post 2026	Necessary	CS09	Identified from TfL's NoLHAM model
Delivery	Movement	Highways	A411 Barnet Road / Hendon Wood Lane	LBB	Unfunded	TBC	Increased delays at the junction	East	N/A	N/A	post 2026	Necessary	CS09	Identified from TfL's NoLHAM model
Need	Movement	Highways	A110 East Barnet Road / Station Road / Albert Road (capacity improvements if gas works site developed)	LBB	Funded by developer obligations (if gas works site developed)	Feasibility and costing of options required	NoLHAM model flagged increased delays by 2031. Town centre improvements would require investment towards this junction	East	N/A	N/A	post 2026	Necessary	CS06 & CS09	Identified from TfL's NoLHAM model
Need	Movement	Highways	A110 East Barnet Road / Lytton Road (capacity improvements if works site developed)	LBB	Funded by developer obligations (if gas works site developed)	Feasibility and costing of options required	NoLHAM model flagged increased delays by 2031.	East	N/A	N/A	post 2026	Necessary	CS06 & CS09	Identified from TfL's NoLHAM model
Need	Movement	Highways	A1000 East Finchley / A504 Fortis Green Road (potential for capacity improvements)	LBB	Unfunded	Feasibility and costing of options required	Impact of Henley's Corner capacity improvements from 2011-12 will diminish by end of the decade and vehicles will switch to use this back road	East	N/A	N/A	post 2026	Necessary	CS06 & CS09	Identified from TfL's NoLHAM model
Delivery	Movement	Highways	Friem Barnet Lane / Colney Hatch Lane	LBB	Unfunded	TBC	NoLHAM model flagged increased delays by 2031.	East	N/A	N/A	post 2026	Necessary	CS09	Identified from TfL's NoLHAM model
Need	Movement	Highways	A111 Chase Side / Osidge Lane	LBB	Unfunded	TBC	NoLHAM model flagged increased delays by 2031.	East	N/A	N/A	post 2026	Necessary	CS06 & CS09	Identified from TfL's NoLHAM model
Need	Movement	Parking	Growth in specific areas will need suitable parking facilities as well as clear management of on-street parking.				Failure to adequately provide new facilities & manage on-street parking could lead to increased road congestion / compromise pedestrian safety.				2011-2015			

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Need	Movement	Parking	Key growth areas to consider parking need and deliver suitable management proposals as appropriate	LBB	Funded by developers as required	Unknown	Failure to deliver proper consideration for parking needs in developments upon construction would require prohibitively expensive retrofitting at a later date	All	N/A	Planning	2011-2015	Necessary	CS09	Highways staff (October 2010)
Delivery	Movement	Parking	Colindale AAP: Electric Car Charging Points	LBB	Directly provided by developers	Directly delivered by developer	Failure to deliver Charging Points in developments upon construction would require prohibitively expensive retrofitting at a later date	West	AAP: Colindale	Planning	2011-2015	Critical	CS09	Colindale AAP - Policy 3.7
Need	Movement	Parking	BXC to consider parking needs and deliver management and/or Electric Car Charging Points as appropriate	LBB	Funded by developers as required		Failure to deliver proper consideration for parking needs in developments upon construction would require prohibitively expensive retrofitting at a later date	West	Brent Cross Cricklewood	Planning	2011-2015	Critical	CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Movement	Parking	Replacement parking space and vehicle maintenance depot for roads and open spaces	LBB	Package of funding is being developed and monitored		Development in Mill Hill will be incoherent, of poor spatial design and generally unsound if move of depot facility and salt barn cannot be facilitated	All	AAP: Mill Hill East	N/A	2011-2015	Critical	CS09	Mill Hill East AAP and various reports to Cabinet
Need	Movement	Pedestrians / Cycling	Walking and cycling facilities improvements required to improve access, safety and quality of environment				Failure to provide adequate pedestrian / cycle routes could compromise safety, failure to improve the public realm could compromise usage.				2011-2015			
Delivery	Movement	Pedestrians / Cycling	3 Greenway Cycle Corridors (Improved cycling facilities)	LBB	Local Investment Plan, LBB	£970,000	Poor quality leisure cycling corridors.	All	N/A	N/A	2011-2015	Necessary	CS09	Local Implementation Plan (2010)
Delivery	Movement	Pedestrians / Cycling	Off-road footpaths and alleyways (Improved pedestrian facilities)	LBB	Local Investment Plan, LBB	£300,000	Poor quality unsafe pedestrian environment and decline of the neighbourhood centre	All	N/A	N/A	2011-2015	Necessary	CS09	Local Implementation Plan (2010)
Delivery	Movement	Pedestrians / Cycling	A1000 Great North Rd / A411 Wood Street (Public realm and crossing improvements)	LBB / Chipping Barnet Town Centre Forum	Funded by Barnet College, Barnet Trading Estate	£200,000	Additional congestion and/or pedestrian safety risks outside the new Barnet College facility as well as less used pedestrian connections	East	Town Centre Chipping Barnet	N/A	2011-2015	Necessary	CS06 & CS09	Barnet College s.106 Agreement (19/09/2007) and Barnet Trading Estate s.106 Agreement (18/12/2007).
Delivery	Movement	Pedestrians / Cycling	Colney Hatch Lane (Improved public realm & pedestrian facilities)	LBB	Local Investment Plan, developer contributions, LBB	£385,000	Poor quality unsafe pedestrian environment and decline of the neighbourhood centre	East	N/A	N/A	2011-2015	Necessary	CS09	Local Implementation Plan (2010)
Delivery	Movement	Pedestrians / Cycling	New Cycle Routes through AAP area inc. North-South linkage	LBB, Inglis Consortium	Funded by developer of Mill Hill East	Directly delivered by developer	Insufficient access through AAP area to station, sufficient to support mode shift.	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS09	Routes required under Mill Hill East AAP Policy MHE10.
Delivery	Movement	Pedestrians / Cycling	New Pedestrian Routes through AAP area inc. North-South linkage	LBB, Inglis Consortium	Funded by developer of Mill Hill East	Directly delivered by developer	Insufficient access through AAP area to station, sufficient to support mode shift.	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS09	Routes required under Mill Hill East AAP Policy MHE10.
Delivery	Movement	Pedestrians / Cycling	North Finchley Town Centre (public realm & pedestrian facilities)	LBB	Funded by developer obligations (TBC) and Mayor of London Bid	£1,000,000	Loss of opportunity to create higher quality and safer town centre environment, economic prosperity and support library	East	Town Centre North Finchley	N/A	2011-2015	Necessary	CS06 & CS09	North Finchley - Town Centre Strategy Consultation and Outer London Town Centres Fund draft bid documentation
Need	Movement	Pedestrians / Cycling	Pedestrian and Cycle Network Study.	BXC Partners, TfL, LBB	Funded by BXC Partners	Directly delivered by developer	Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	Planning	2011-2015	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Movement	Pedestrians / Cycling	Cycle and Pedestrian Routes: Improvements to networks across Colindale.	TfL, LBB	Funded by developer contributions (TBC)	Implementation costing and feasibility required	Without safe and clearly marked cycle routes through Colindale, there will not be sufficient mode shift in travel	West	AAP: Colindale	Various Phases	2011-2015	Critical	CS09	Colindale AAP - Policy 3.2
Delivery	Movement	Pedestrians / Cycling	Colindeep Lane (Improved public realm & pedestrian facilities)	LBB	Local Investment Plan, LBB	£189,000	Poor quality & unsafe pedestrian environment	West	N/A	N/A	2011-2015	Necessary	CS09	Local Implementation Plan (2010)
Delivery	Movement	Pedestrians / Cycling	Edgware Town Centre Improved public realm to allow intensification of pedestrian traffic	TfL, Developer Partner, London Buses	Funded by developer contributions (TBC) Local Investment Plan	£250,000	If not delivered then pedestrian safety and quality of environment is reduced.	West	Town Centre Edgware	N/A	2011-2015	Critical	CS06 & CS09	Local Implementation Plan (2010) and Draft Edgware Town Centre Strategy (June 2011)
Need	Movement	Pedestrians / Cycling	Walking and cycling facilities improvements required to improve access, safety and quality of environment				Failure to provide adequate pedestrian / cycle routes could compromise safety, failure to improve the public realm could compromise usage.				2016-2020			
Delivery	Movement	Pedestrians / Cycling	Brent Cross Pedestrian Underpass Works	BXC Partners, TfL, LBB	Funded by BXC Partners		BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS02 & CS09	Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Pedestrians / Cycling	Footbridge over Welsh Harp from West Hendon Estate	Baratt's, LBB	Funded by developer of West Hendon Estate	£420,000	Inability to reduce severance + improve access to the site	West	West Hendon Estate	TBC	2016-2020	Necessary	CS09	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Movement	Pedestrians / Cycling	Footbridge over Silk Stream to Sainsbury's Site from West Hendon Estate	Baratt's, LBB	Funded by developer of West Hendon Estate	£548,000	Inability to reduce severance + improve access to the site	West	West Hendon Estate	TBC	2016-2020	Necessary	CS09	West Hendon Estate Planning Application (ref. W13937/04)
Need	Movement	Pedestrians / Cycling	Walking and cycling facilities improvements required to improve access, safety and quality of environment				Failure to provide adequate pedestrian / cycle routes could compromise safety, failure to improve the public realm could compromise usage.				2021-2025			
Delivery	Movement	Pedestrians / Cycling	Pedestrian and Cyclist bridge over M1 J1	BXC Partners, TfL, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Pedestrians / Cycling	A41 pedestrian bridge	BXC Partners, TfL, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Pedestrians / Cycling	A406 pedestrian bridge	BXC Partners, TfL, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	3	2021-2025	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Movement	Pedestrians / Cycling	Footbridge over MML from Geron Way to Southern Town Centre	BXC Partners, TfL, LBB	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	5	post 2026	Critical	CS02 & CS09	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
	UTILITIES	UTILITIES	<p>Planning for growth in usage of utilities is almost universally focused at the national scale (except for local providers such as Thames Water). It is therefore very difficult to relate infrastructure planning to local planned growth except where detailed assessment (Brent Cross + MHE) has taken place. Where details are known it has been included, but in the main it is hoped that emerging information from the Mayor of London's Utilities Team alongside direct conversations with utilities providers will further add detail and costing to this section as discussions with utilities, developer partners and the Council develop over time.</p>											

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Utilities	Electricity	Network reinforcement to support doubling domestic / local generation by 2020 (to 15GW nationally)	National Grid, LBB	National Grid / UKPN	<i>[Unknown]</i>	Insufficient local contribution towards energy generation will increase grid loading and the need for new largescale electricity generation plants elsewhere in the UK.	All	N/A	N/A	2011-2015	Necessary	CS1	Point 2.9 - Operating the Electricity Transmission Networks in 2020 (http://www.nationalgrid.com/NR/rdonlyres/32879A26-D6F2-4D82-9441-40FB2B0E2E0C/39517/Operatingin2020Consulation1.pdf)
Delivery	Utilities	Electricity	Cockfosters 33/11kV Primary substation. Proposed capacity increase to existing transformers.	UK Power Networks	UKPN	Unknown	Funding pressures for this grid provider could lead to pressure to prioritise the most important projects	All	N/A	N/A	2011-2015	Critical	CS1	Barnet infrastructure review by UKPN (25 August 2011)
Delivery	Utilities	Electricity	East Finchley 33/11kV Primary substation. Proposed capacity increase to existing transformers & replacement of switchboard	UK Power Networks	UKPN	Unknown	Funding pressures for this grid provider could lead to pressure to prioritise the most important projects	All	N/A	N/A	2011-2015	Critical	CS1	Barnet infrastructure review by UKPN (25 August 2011)
Delivery	Utilities	Electricity	BEE 33/11kV Primary substation replacement of 11kV switchboard.	UK Power Networks	UKPN	Unknown	Project is underway	All	N/A	N/A	2011-2015	Necessary	CS1	Barnet infrastructure review by UKPN (25 August 2011)
Delivery	Utilities	Electricity	Golders Green Primary substation replacement of 11kV switchboard	UK Power Networks	UKPN	Unknown	Funding pressures for this grid provider could lead to pressure to prioritise the most important projects	All	N/A	N/A	2011-2015	Necessary	CS1	Barnet infrastructure review by UKPN (25 August 2011)
Delivery	Utilities	Electricity	Manns Rd 33/11kV Primary substation replacement of 11kV switchboard	UK Power Networks	UKPN	Unknown	Funding pressures for this grid provider could lead to pressure to prioritise the most important projects	All	N/A	N/A	2011-2015	Necessary	CS1	Barnet infrastructure review by UKPN (25 August 2011)
Delivery	Utilities	Electricity	Electricity Network Local Upgrades	Inglis Consortium, National Grid	Funded by developer of Mill Hill East		Required in order to make the MHE Planning Application acceptable and deliverable	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS1	Requirement for upgrades detailed and costed in Mill Hill East Planning Application - Viability Appraisal
Delivery	Utilities	Electricity	East Barnet 33/11kV Primary substation. Proposed capacity increase to existing transformers.	UK Power Networks	UKPN	Unknown	Funding pressures for this grid provider could lead to pressure to prioritise the most important projects	All	N/A	N/A	2016-2020	Critical	CS1	Barnet infrastructure review by UKPN (25 August 2011)
Delivery	Utilities	Electricity	Hendon Way 33/11kV Primary substation replacement of transformers with larger units, upgrade 33kV circuits and replace 11kV switchboard	UK Power Networks	UKPN	Unknown	Funding pressures for this grid provider could lead to pressure to prioritise the most important projects	All	N/A	N/A	2016-2020	Critical	CS1	Barnet infrastructure review by UKPN (25 August 2011)
Delivery	Utilities	Electricity	BEE 33/11kV Primary substation third 33/11kV, 20/40MVA transformer to be installed	UK Power Networks	UKPN	Unknown	Funding pressures for this grid provider could lead to pressure to prioritise the most important projects	All	N/A	N/A	2016-2020	Necessary	CS1	Barnet infrastructure review by UKPN (25 August 2011)
Delivery	Utilities	Electricity	Bellevue 33/11kV Primary substation capacity increase to existing transformers.	UK Power Networks	UKPN	Unknown	Funding pressures for this grid provider could lead to pressure to prioritise the most important projects	All	N/A	N/A	2016-2020	Necessary	CS1	Barnet infrastructure review by UKPN (25 August 2011)

Infrastructure Delivery Plan

(Delegated Powers Report - November 2011)

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Delivery	Utilities	Electricity	Golders Green 33/11kV Primary substation replacement of transformers with larger units	UK Power Networks	UKPN	Unknown	Funding pressures for this grid provider could lead to pressure to prioritise the most important projects	All	N/A	N/A	2016-2020	Necessary	CS1	Barnet infrastructure review by UKPN (25 August 2011)
Delivery	Utilities	Electricity	Manns Rd 33/11kV Primary substation replacement of transformers with larger units, and upgrade 33kV circuits.	UK Power Networks	UKPN	Unknown	Funding pressures for this grid provider could lead to pressure to prioritise the most important projects	All	N/A	N/A	2016-2020	Necessary	CS1	Barnet infrastructure review by UKPN (25 August 2011)
Delivery	Utilities	Electricity	Primary Substation (30MVA) on NE corner of site South of M1/A406 roundabout	BXC Partners, National Grid	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS1 & CS2	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Electricity	Substation Distribution Centre to increase capacity of wider area	Baratt's, National Grid	Funded by developer of West Hendon Estate		required to upgrade infrastructure networks to meet need from redevelopment	West	Hendon Estate	TBC	2016-2020	Necessary	CS1	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Utilities	Electricity	Primary Service Mains Diversion	Baratt's, National Grid	Funded by developer of West Hendon Estate		required to upgrade infrastructure networks to meet need from redevelopment	West	West Hendon Estate	TBC	2016-2020	Necessary	CS1	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Utilities	Electricity	2nd Primary Substation (30MVA) on NE corner of site South of M1/A406 roundabout	BXC Partners, National Grid	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	4	2021-2025	Critical	CS1 & CS2	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Gas	Gas Network Upgrades	Inglis Consortium, National Grid	Funded by developer of Mill Hill East		Required in order to make the MHE Planning Application acceptable and deliverable	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS1	Requirement for upgrades detailed and costed in Mill Hill East Planning Application - Viability Appraisal
Delivery	Utilities	Gas	Relocation of Gas Governor to South of shopping centre	BXC Partners, National Grid	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS1 & CS2	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Fresh Water	Upper Thames Reservoir to meet demand for London	Thames Water	Thames Water	[£230m]	A study is currently underway to determine whether this additional storage capacity is required for long term supply	All	N/A	N/A	2016-2020	Necessary	CS1	http://www.thameswater.co.uk/cps/rde/x/bcr/corp/businn-plan-summary-document-april-09.pdf
Delivery	Utilities	Fresh Water	Desalination Plant at Becton to meet demand for London	Thames Water	Thames Water	[£1.4bn]	Demand in the south east will outstrip water supply in the medium-long term without full water conservation measures	All	N/A	N/A	TBC	Critical	CS1	http://www.thameswater.co.uk/cps/rde/x/bcr/corp/businn-plan-summary-document-april-09.pdf
Delivery	Utilities	Fresh Water	750m of 450mm diam truck main (near A41)	BXC Partners, Thames Water	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable	West	Brent Cross Cricklewood	1	2021-2025	Critical	CS1	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Fresh Water	Installation of water meters to encourage demand management	Thames Water	Thames Water	Unknown	Required to reduce long term water consumption levels to manage limits to water supply	All	N/A	N/A	TBC	Critical	CS1	Barnet infrastructure review by Thames Water (13 October 2011)
Delivery	Utilities	Fresh Water	Fresh Water Network Upgrades	Inglis consortium, Thames Water	Funded by developer of Mill Hill East		Required in order to make the MHE Planning Application acceptable and deliverable	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS1	Requirement for upgrades detailed and costed in Mill Hill East Planning Application - Viability Appraisal
Delivery	Utilities	Waste Water	Delivery of new solutions to reduce surface water runoff from properties...etc	Thames Water	Thames Water	Unknown	Cost of engineering solutions to increase sewer capacity is likely to be much greater than delivering runoff reduction	All	N/A	N/A	2016-2020	Critical	CS1	Barnet infrastructure review by Thames Water (13 October 2011)
Delivery	Utilities	Foul Water	Studies to determine improvements required to Brent Valley and Hendon Trunk Sewers	Thames Water	Thames Water	Unknown	Risk to long-term capacity of these sewers from housing growth if the impacts are not fully assessed	All	N/A	N/A	2011-2015	Necessary	CS1	http://www.thameswater.co.uk/cps/rde/x/bcr/corp/businn-plan-summary-document-april-09.pdf

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Utilities	Foul Water	Improvements to remove misconnections and duel manholes that feed surface water into Hendon Sewer Network	Thames Water	Thames Water	Unknown	Particular risk to capacity in stormflow events linked to misconnections of surface water runoff into the sewer = risk of Sewer Flooding.	All	N/A	N/A	2011-2015	Necessary	CS1	http://www.thameswater.co.uk/cps/rde/x/bcr/corp/business-plan-summary-document-april-09.pdf
Delivery	Utilities	Foul Water	Increased capacity at Mogden Sewage Treatment Works	Thames Water	Thames Water	Unknown	86% of the planned housing development in Barnet will feed into Mogden STW and therefore this capacity upgrade is essential mitigation	All	N/A	N/A	2016-2020	Critical	CS1	Barnet infrastructure review by Thames Water (13 October 2011)
Delivery	Utilities	Foul Water	Thames Water 'Foul Water Study' to assess need for extra sewer capacity near A41	BXC Partners, Thames Water	Funded by BXC Partners		Required in order to make the BXC Planning Application acceptable and deliverable to alleviate A41 flooding	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS1	Barnet infrastructure review by Thames Water (13 October 2011)
Delivery	Utilities	Foul Water	Foul and Storm Water Network Upgrades	Inglis consortium, Thames Water	Funded by developer of Mill Hill East		Required in order to make the MHE Planning Application acceptable and deliverable	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS1	Requirement for upgrades detailed and costed in Mill Hill East Planning Application - Viability Appraisal
Delivery	Utilities	Telecomms	Installation of Superfast Broadband Network	BT & Virgin Media	Re-allocation of digital switchover fee + higher user charges	Unknown	Failure to be a primary area for the delivery of superfast broadband will affect Barnet's competitiveness for SMEs	All	N/A	N/A	2011-2015	Critical	CS1	Review of Virgin and BT Openreach business plans identified delivery of network upgrades by December 2011
Delivery	Utilities	Telecomms	Telecoms Infrastructure Upgrades	Inglis consortium, BT	Funded by developer of Mill Hill East		Required in order to make the MHE Planning Application acceptable and deliverable	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS1	Requirement for upgrades detailed and costed in Mill Hill East Planning Application - Viability Appraisal
Delivery	Utilities	Combined	Installation of new networks of utilities (telecoms, electricity, district heating...etc)	BXC Partners and relevant service providers	Funded by BXC Partners		Development is unacceptable without adequate servicing	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS1 & CS2	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Combined	Installation of new networks of utilities (telecoms, electricity, district heating...etc)	BXC Partners and relevant service providers	Funded by BXC Partners		Development is unacceptable without adequate servicing	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS1 & CS2	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Combined	Installation of new networks of utilities (telecoms, electricity, district heating...etc)	BXC Partners and relevant service providers	Funded by BXC Partners		Development is unacceptable without adequate servicing	West	Brent Cross Cricklewood	3	2021-2025	Critical	CS1 & CS2	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Combined	Installation of new networks of utilities (telecoms, electricity, district heating...etc)	BXC Partners and relevant service providers	Funded by BXC Partners		Development is unacceptable without adequate servicing	West	Brent Cross Cricklewood	4	2021-2025	Critical	CS1 & CS2	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Combined	Installation of new networks of utilities (telecoms, electricity, district heating...etc)	BXC Partners and relevant service providers	Funded by BXC Partners		Development is unacceptable without adequate servicing	West	Brent Cross Cricklewood	5	post 2026	Critical	CS1 & CS2	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Combined	Installation of new networks of utilities (telecoms, electricity, district heating...etc)	BXC Partners and relevant service providers	Funded by BXC Partners		Development is unacceptable without adequate servicing	West	Brent Cross Cricklewood	6	post 2026	Critical	CS1 & CS2	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Combined	Installation of new networks of utilities (telecoms, electricity, district heating...etc)	BXC Partners and relevant service providers	Funded by BXC Partners		Development is unacceptable without adequate servicing	West	Brent Cross Cricklewood	7	post 2026	Critical	CS1 & CS2	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Utilities	Combined	National Code of Conduct for Street Works (reduction in peak loss of highways)	TfL	TfL	N/A	TBC	All	N/A	N/A	2011-2015	Necessary	CS1	http://www.oneroadnetwork.org/news/2010/jun/njug-launches-national-code-conduct-street-works-mayor-london/

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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	EDUCATION	EDUCATION	Forward Planning by the Council's Children's Service using GLA general population growth predictions has enabled a detailed understanding of infrastructure demand and costs to be developed, including a full understanding of the areas of greatest pressure for pupil places during the 2011-15 period and boroughwide pupil place estimates for primary education and a more detailed understanding of secondary requirements through to 2020. In terms of the key growth areas, the infrastructure assessments have built in a detailed understanding of what is needed to be delivered in terms of both project costs and site allocations.											
Delivery	Education	Further / Higher	Barnet College - merger with Southgate College (to enable shared management and back office functions)	Barnet College, Southgate College	Revenue savings	Delivered by colleges through savings programme	Both colleges would need to find alternative ways of achieving cost savings and this could more greatly impact on the quality & range of courses provided	All	N/A	N/A	2011-2015	Critical	CS10	http://www.barnet.ac.uk/index.php/news/college-news-information/business-as-usual-as-colleges-merge
Delivery	Education	Further / Higher	Barnet College - Grahame Park Estate Campus (Rebuild on Colindale Hospital Site / refurbish existing site)	LSC, Barnet College	Learning and Skills Council Grant, Barnet College - Site Rationalisation Plan across Barnet	Dependent on grant / other funding	Inability for Barnet College to move to a more sustainable and accessible location if it does not receive sufficient government funding by 2014. Contingency is to refurbish existing site & increase usage	West	N/A	N/A	2011-2015	Critical	CS10	Strategic Plan 2008/09-2010/11 http://www.barnet.ac.uk/mlwcontent/0/images/governance/Strat%20Plan%2008-11%20%28update%2009-12%29.pdf
Delivery	Education	Further / Higher	Middlesex University - Hendon Campus Plan Phase 4-5 (Consolidation of Archway, Trent Park & Enfield Sites along with	DBIS, Middlesex University, LBB	Department for Business Innovation and Skills Grant, Middlesex University - Site Rationalisation Plan for N. London	Dependent on grant / other funding	This stage of the programme is less certain and will depend on the business case for further consolidation and site rationalisation of these specific campuses	West	N/A	N/A	2011-2015	Necessary	CS10	Cabinet report 17 November 2008 'Civic and University Quarter' Draft Masterplan
Need	Education	Secondary	Few additional secondary places are identified as required, due to capacity already delivered.	LBB			That the current use of spare places leads to Senior Management not seeing the longer term investment need.	All	N/A	N/A	2011-2015		CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Secondary	Additional places from the 2006-2010 period improvements used to address growth.	LBB	N/A	£0	Low risk that GLA figures might have underestimated need & extra places required.	All	N/A	N/A	2011-2015	Necessary	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Secondary	at least 3 permanent expansions to meet demand by September 2015 (600)	LBB	N/A	£9,000,000	Insufficient secondary places = failure to meet obligations	All	N/A	N/A	2011-2015	Necessary	CS10	Cabinet Report 3 November 2011 (Item 6)
Need	Education	Secondary	Identified natural and planned growth requires 2640 additional places.	N/A	N/A		Demand for Primary Places in 2011-2015 translates into secondary need, but spare capacity fully used up	All	N/A	N/A	2016-2020		CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Secondary	Temporary provision of at least 40 classes over the period: 1200 places.	N/A	N/A	£8,000,000	Insufficient secondary places = failure to meet obligations	All	N/A	N/A	2016-2020	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Secondary	New 9FE Secondary School, including sixth form (1890 places)	DfE, LBB	DfE, Planning Contributions	£45,000,000	Insufficient spare secondary level places	All	N/A	N/A	2016-2020	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Education	Secondary	Expansions of 2FE to meet demand in the Mill Hill East area (400 places)	DfE, LBB	DfE, LBB	£10,000,000	Insufficient spare secondary level places to accommodate Mill Hill East development	East	AAP: Mill Hill East	N/A	2016-2020	Critical	CS10	Paragraph 5.6.2 of Mill Hill East Area Action Plan Part 2 - Policies and Proposals http://www.barnet.gov.uk/mill-hill-aap-jan-2009-policies-pt1.pdf
Delivery	Education	Secondary	1FE expansion to another 3 Secondary Schools (600 places)	DfE, LBB	DfE, LBB	£9,000,000	Insufficient spare secondary level places	East	N/A	N/A	2016-2020	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Need	Education	Secondary	Some of the capacity created during 2011 to 2016 will help to meet demand in 2016 to 2020. Further capacity may be required due to growth, but the amount is unknown	N/A	N/A	N/A	Projections indicate likelihood of increased need, risk is that figures underestimate situation if not regularly reappraised.	All	N/A	N/A	2021-2025		CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Secondary	Replacement Whitefield School	BXC Partners, LBB	Funded by the BXC Partners		The existing facility cannot be closed until the new facility is ready for occupation.	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Education	Secondary	Further Secondary School or a number of expansions likely to be required in the period	DfE, LBB	DfE, LBB	Unknown	If projections are not suitably checked regularly, then risk of not ensuring land is available for necessary new provision	West	N/A	N/A	2021-2025	Necessary	CS10	Long term education forecasting, linked to the number of primary schools required in 2016-2020.
Need	Education	Primary	Identified natural and planned growth requires 2310 additional places.	N/A	N/A	N/A	Insufficient primary places = failure to meet legal obligations	All	N/A	N/A	2011-2015		CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	38 additional temporary 'classes' in existing schools, some of which will become permanent (1140 places)	DCSF, LBB	Planning Contributions, LBB and DCSF Grant	£5,000,000	Insufficient primary places = failure to meet legal obligations	All	N/A	N/A	2011-2015	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	1 FE Edgware Jewish Primary school switch to maintained sector (210 existing places).	DfE, LBB	Completed	£0	Insufficient primary places = failure to meet legal obligations	West	N/A	N/A	2011-2015	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	1 FE Etz Chaim Free School (210 places).	DfE, LBB	Completed	£0	Insufficient primary places = failure to meet legal obligations	West	N/A	N/A	2011-2015	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	1 FE expansion to Broadfields school (210 extra places).	DfE, LBB	Underway	£3,000,000	Insufficient primary places = failure to meet legal obligations	West	N/A	N/A	2011-2015	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	4FE in Colindale area including through new site for the Orion school and expansion of Blessed Dominic (840 places)	DCSF, LBB	LBB, DfE Grant and Developer contributions	£15,725,000	Insufficient primary places = failure to meet legal obligations	West	N/A	N/A	2011-2015	Critical	CS10	Cabinet Resources Committee report 27 September 2011 'Permanent expansion of primary school provision in the Colindale area' (agenda item 7).
Delivery	Education	Primary	1 FE expansion to school in East of the borough (210 places)	DCSF, LBB	LBB and DfE Grant (phase 1 schools)	£21,600,000	Insufficient primary places = failure to meet legal obligations	East	N/A	N/A	2011-2015	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Education	Primary	1 FE expansion to school in north east / east of the borough (210 places)	DCSF, LBB	LBB and DfE Grant (phase 1 schools)	<i>See phase 1 cost above</i>	Insufficient primary places = failure to meet legal obligations	East	N/A	N/A	2011-2015	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	1 FE expansion to Menorah School in Hendon (210 places)	DfE, LBB, Governors	LBB and DfE Grant, Governor Contribution (phase 1 schools)	<i>See phase 1 cost above</i>	Insufficient primary places = failure to meet legal obligations	West	N/A	N/A	2011-2015	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	1 FE expansion to St Marys & St Johns in Hendon (210 places)	DCSF, LBB	LBB and DfE Grant (phase 1 schools)	<i>See phase 1 cost above</i>	Insufficient primary places = failure to meet legal obligations	West	N/A	N/A	2011-2015	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	At least a new 2FE school at Mill Hill East (420 places)	Inglis Consortium DCSF, LBB	£9m (2FE) planning obligation on Mill Hill East developer	<i>£9,000,000</i>	Mill Hill East Development (phase X) unacceptable without it, but does not affect other developments	East	AAP: Mill Hill East	TBC	2011-2016	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	1 FE expansion to Deansbrook School (210 places)	DCSF, LBB	LBB and DfE Grant (phase 2 schools)	<i>£24,000,000</i>	Insufficient primary places = failure to meet legal obligations	West	N/A	N/A	2011-2015	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	2FE new school in South of the Borough (420 places)	DCSF, LBB	LBB and DfE Grant (phase 2 schools)	<i>See phase 2 cost above</i>	Insufficient primary places = failure to meet legal obligations	West	N/A	N/A	2011-2015	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Need	Education	Primary	Identified natural and planned growth requires 9FE (270 additional places).	N/A	N/A	N/A	Insufficient primary places = failure to meet legal obligations	All	N/A	N/A	2016-2020		CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	1 FE expansion to school in east of the borough (210 places)	DCSF, LBB	LBB and DfE Grant	<i>See phase 2 cost above</i>	Insufficient primary places = failure to meet legal obligations	East	N/A	N/A	2016-2020	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	Up to 6FE through expansions to existing schools (location to be identified)	DCSF, LBB	LBB and DfE Grant	<i>£25,000,000</i>	Insufficient primary places = failure to meet legal obligations	All	N/A	N/A	2016-2020	Critical	CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	New 2FE school on Barnet College Grahame Park site.	LSC, Barnet College, LBB, Developer Partners	Funded by developer of Barnet College Site	<i>£12,600,000</i>	There is a high risk that Barnet College will not move and release this site. Alternatives solutions are being sought.	West	AAP: Colindale	Barnet College (phase 1)	2011-2015	Critical	CS10	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Delivery	Education	Primary	Replacement Claremont School (expanded by 1FE, 210 places)	BXC Partners, LBB	Replacement funded by the BXC Partners - but 1FE expansion is unfunded		BXC Development unacceptable without it	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Education	Primary	Additional places / sites delivered as identified.	N/A	N/A	N/A	West of the borough is the area of particular risk	All	N/A	N/A	2021-2025		CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Primary	New School built on Peel Centre East Land (increase of 420 places)	LBB, Police, Development Partners	Funded by developer for Peel Centre Site and other CAAP sites	<i>£10,000,000</i>	Insufficient primary places in Colindale if the Peel Centre and other later sites are developed and this is not provided	West	AAP: Colindale	Peel Centre East	2021-2025	Critical	CS10	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Need	Education	Early Years	Recent investment in Children's Centres means that there is little additional capacity required in near future	N/A	N/A	N/A	Affects of growth on ability to meet the need for early years education & related provision will be monitored to ensure needs can be met	All	N/A	N/A	2011-2015		CS10	Children's Service (Aug 2010)
Need	Education	Special	Delivery of most special school places through existing mainstream facilities	N/A	N/A	N/A	Needs must be regularly re-assessed to ensure sufficient capacity is delivered at the right time and the right place	All	N/A	N/A	2011-2015		CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Special	Orien School SEN unit	LBB	LBB / DfE / developer contributions	<i>Costed under Orien School</i>	To address the needs of increased primary places demand in west of borough	West	AAP: Colindale	N/A	2011-2015	Necessary	CS2 & CS10	Cabinet Report 3 November 2011 (Item 6)
Delivery	Education	Special	Mapledown School	LBB, BXC Partners	Funded by the BXC Partners		The existing facility cannot be closed until the new facility is ready for occupation.	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
	HEALTH	HEALTH	<p>The delivery of Healthcare at both the Primary and Secondary levels of care will be subject to significant changes in direction and control resulting from the Coalition Government's Health Bill.</p> <p>Secondary care is currently addressed through services for specialist care pathways, providers of these services will continue to manage requirements based on the number of referrals from primary care providers and the surrounding funding arrangements; continuing trends are for restructuring of services to move more provision into the primary care level and for secondary providers to consolidate services and develop national / regional health specialisms.</p> <p>Primary care is clearer at the highest level of the hierarchy where the last elements of the community hospital provision are being delivered. Primary Care Health Centres and lower tiers of provision were last detailed fully in the Primary Care Strategy of March 2010. Recent measures to locally integrate health and social care funding and provision are underway and will in time lead to new infrastructure projects being identified to support changing patterns of commissioning.</p>											
Need	Health	Community Hospitals	To provide a full range of primary care, two modern community hospitals are required	NHS Barnet	ELEVATE Partnership	N/A	This is required to ensure local access to the full range of Primary Care services provided in suitable premises	All	N/A	N/A	2011-2015		CS11	N. Central London NHS Strategy Plan
Delivery	Health	Community Hospitals	Finchley Memorial Hospital Primary Care Centre (expansion and redevelopment)	DH, NHS Barnet	ELEVATE Partnership	£33,000,000	Inadequate capacity for increased primary level care and provision of wider range of services local to residents	East	N/A	N/A	2011-2015	Critical	CS11	Finchley Memorial Hospital Planning Application (ref. F/03573/09, dated 20 April 2010)
Need	Health	Primary Care Health Centre	A network of Primary Care Health Centres will provide modern local facilities that cater for a range of regular needs and help combine small local GP practices	NHS Barnet	ELEVATE Partnership	N/A	Required to ensure localised access to a range of Primary Care services from suitable premises; but also to address constraints relating to the quality, access or affordability of existing GP facilities.	All	N/A	N/A	2011-2015		CS11	N. Central London NHS Strategy Plan
Delivery	Health	Primary Care Health Centre	OPTION A (2011-2015): Colindale (Colindale Hospital) GP-led Health Centre (1000m ²)	DH, NHS Barnet, Developer Partners	External structure = developer obligation: Colindale Hospital & fit out by NHS Barnet	£2,500,000	Risks insufficient funding to support delivery of the centre may require provision of an alternative on a different site (Newspaper Library Site)	West	AAP: Colindale	Colindale Hospital	2011-2015	Critical	CS11	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Health	Primary Care Health Centre	OPTION B (2011-2015): Colindale (Newspaper Library Site) GP-led Health Centre (1000m ²)	DH, NHS Barnet, Developer Partners	External structure = developer obligation: British Library Site & fit-out by NHS Barnet	Costed under option A	Provision of this alternative site may come at a cost to the council on other benefits, as it's not option identified within the Colindale Area Action Plan	West	AAP: Colindale	British Library Site	2011-2015	Critical	CS11	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Delivery	Health	Primary Care Health Centre	Brunswick Park Primary Care Health Centre (replacement for fire damaged provision)	DH, NHS Barnet	ELEVATE Partnership	£500,000	Long term housing of the Health Centre in temporary accommodation due to fire. Meaning use of substandard facilities and increased revenue cost implications.	East	N/A	N/A	2011-2015	Critical	CS11	Brunswick Park Planning Application planned to deliver (ref. B/01960/10), but withdrawn as funding source removed. Various alternatives are therefore currently under consideration.
Delivery	Health	Primary Care Health Centre	Golders Green Primary Care Health Centre (1000m ²)	DH, NHS Barnet, Developer Partners	Funded by developer contributions (TBC) and NHS Barnet	£2,500,000	Poor quality existing local GP facilities, therefore new premises for 4 GPs to co-locate is required	East	N/A	N/A	2011-2015	Necessary	CS11	NHS Barnet Estate Strategy - March 2010
Delivery	Health	Primary Care Health Centre	Potential delivery of paediatric provision as part of Oak Lane Children's Centre	NHS Barnet	ELEVATE Partnership	Costed under children's centres	Loss of opportunity to provide specialist paediatric healthcare in an area of identified need.	East	N/A	N/A	2011-2015	Necessary	CS11	NHS Barnet (August 2010)
Delivery	Health	Primary Care Health Centre	Colindale (Grahame Park) GP-led Health Centre - (1000-2000m ²)	DH, NHS Barnet, Developer Partners	External 1000m ² , structure = developer obligation & fit-out by NHS Barnet. If extra 1000m ² needed, NHS pay difference in cost	£2,160,000	Inability to cater for healthcare need related to redevelopment of Graham Park Estate and the Colindale area as a whole	West	AAP: Colindale	Grahame Park (phase 3)	2016-2020	Critical	CS11	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Delivery	Health	Primary Care Health Centre	West Hendon Primary Care Health Centre	DH, NHS Barnet, Baratt's	Funded by developer of West Hendon Estate	£647,381	Viability concerns as part of the development lead to delays in provision of this facility.	West	West Hendon Estate	TBC	2016-2020	Necessary	CS11	West Hendon Estate Planning Application (ref: W13937/04 dated 01 July 2008).
Delivery	Health	Primary Care Health Centre	Temporary Brent Cross Cricklewood Primary Care Health Centre	DH, NHS Barnet, Developer Partners	Funded by the BXC Partners		This option is required due to the number of dwellings delivered before the Primary Care Centre.	West	Brent Cross Cricklewood	1	2016-2020	Necessary	CS2 & CS11	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Health	Primary Care Centre	Drop-in Health Centre	DH, NHS Barnet, Developer Partners	Funded by the BXC Partners		BXC Development unacceptable without it	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS2 & CS11	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Health	Primary Care Centre	BXC Primary Care Health Centre (as part of development scheme)	DH, NHS Barnet, Developer Partners	Funded by the BXC Partners		BXC Development unacceptable without it	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS2 & CS11	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Health	GP Practices	It is not possible to holistically plan for GP practice improvements as existing facilities are owned by GPs and NHS Barnet is required to pay the agreed cost of the accommodation.	NHS Barnet	ELEVATE Partnership	N/A	Some local GP facilities are unlikely to change until GP commissioning organisations take responsibility for the health budgets of patients and facility costs are then fully recognised, which will lead to consolidation of facilities.	All	N/A	N/A	2011-2015		CS11	NHS Barnet - Polysystem Asset Utilisation Plan - March 2010 (Version 2) / N. Central London NHS Strategy Plan
Delivery	Health	GP Practices	Option for GP Surgery or other health usage in former Officer's Mess	DH, NHS Barnet, Developer Partners	Funded by developer of Mill Hill East		Lack of local sense of GP access if solely reliant on the existing available capacity at the Primary Care Health Centre on Mill Hill Gas Works Site	East	AAP: Mill Hill East	TBC	2011-2015	Necessary	CS11	Delivery of a D1 facility listed as the change of use - http://www.millhill-east.co.uk/documents/planning%20application/MHEOPA2%20Planning%20Application%20Specification.pdf

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Need	Health	Social Care	An assessment of social care facilities will be needed in the near future as services move to third sector providers who will be required to identify suitable premises	DH, NHS Barnet	ELEVATE Partnership	Unknown	Existing facilities generally cater for existing service needs, but in future as service commissioning is diversified, the cost of facilities will be a relevant factor in contracting dependent on whether cheap and suitable facilities exist	All	N/A	N/A	2011-2015		CS11	NHS Barnet - Polysystem Asset Utilisation Plan - March 2010 (Version 2) / N. Central London NHS Strategy Plan
Delivery	Health	Social Care	Centre for Independent Living - providing services to disabled	DH, NHS Barnet	Funded by developer of Grahame Park	£2,145,970	Unacceptable loss of existing Flightways Welfare Centre related to redevelopment of Graham Park Estate if not reprovided.	All	AAP: Colindale	Grahame Park (phase ?)	2011-2015	Necessary	CS11	Graham Park Planning Application (ref. W01731JS/04)
	COMMUNITY FACILITIES	COMMUNITY FACILITIES	A needs assessment of Community Facilities was completed in June 2011, which identified the requirement for further more nuanced work to improve the understanding of site specific opportunities relating to existing and new community facilities. Increasing use of and access to the schools estate will play a role in helping to address demand pressures, and to date this has secured 'out of hours' Youth Provision across the borough. Provision has been identified in key growth areas through AAPs & Planning Applications to sufficiently address local needs, but a holistic plan for community facilities in general is needed to be developed to ensure the future facilities are properly managed and led by local communities.											
Need	Community Facilities	Libraries	Identified need to address population increase, budget reductions and changing needs from libraries	LBB	Strategy estimate of £3-4m programme cost, exact plans and figures TBC	£3,500,000	There is a risk that libraries provision may not meet the needs of natural and planned population growth if not considered holistically	All	N/A	N/A	2011-2015		CS10	NHS Barnet - Polysystem Asset Utilisation Plan - March 2010 (Version 2) / N. Central London NHS Strategy Plan
Delivery	Community Facilities	Libraries	Childs Hill Library rebuilt as a 'Link Library'.	LBB	Realising site value, shared site usage & contributions from new development	Costed under community facilities	Detailed delivery plans and costings are due Autumn 2011	All	Granville Road Estate	N/A	2011-2015	Necessary	CS10	Cabinet 26/07/2011 (Decision Item 6) - Strategic Library Review
Delivery	Community Facilities	Libraries	Adapted provision at Finchley Church End to address impact of Mill Hill East development and changed customer need from Landmark Library at Arts Depot	LBB	Realising site value & contributions from new development		Detailed delivery plans and costings are due Autumn 2011	All	AAP: Mill Hill East	N/A	2011-2015	Necessary	CS10	Cabinet 26/07/2011 (Decision Item 6) - Strategic Library Review
Delivery	Community Facilities	Libraries	Arts Depot transformed to provide Landmark Library for consolidated existing Friern Barnet + North Finchley libraries	LBB	Existing property disposals, GLA, shared site usage & contributions from new development		Detailed delivery plans and costings are due Autumn 2011	All	Town Centre: North Finchley	N/A	2011-2015	Necessary	CS10	Cabinet 26/07/2011 (Decision Item 6) - Strategic Library Review
Delivery	Community Facilities	Libraries	Colindale 'Link Library' to replace Grahame Park Library	Choices for Grahame Park, St George & LBB	Contributions from new development	£1,500,000	Detailed delivery plans and costings are due Autumn 2011	All	AAP: Colindale	N/A	2011-2015	Necessary	CS10	Cabinet 26/07/2011 (Decision Item 6) - Strategic Library Review

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

Need or Delivery	Primary Category	Secondary Category	Item	Delivery Partners	Delivery Mechanism (completed projects are highlighted in green - applies to all 2006-2010 projects)	Cost (italicised if estimate, blacked-out if commercially sensitive)	Risks / Contingency	Area (West / East)	Sub Area	Phase	Period (2006-2010, 2011-2015, 2016-2020, 2021-2025 post 2026)	Priority (Critical Necessary Preferred)	Core Strategy Policy Source	Data Source
Need	Community Facilities	Specialised Community Facilities	Need for facilities to support Children, Young People and Families, as well as Arts + performance addressed by community-based organisations				The 'Big Society' should lead, but there is a small risk that groups are unable to find suitable facilities to deliver projects and new networks, to be mitigated for as appropriate responding to issues as they arise.	All	N/A	N/A	2011-2015		CS10	CommUnity Barnet
Delivery	Community Facilities	Specialised Community Facilities	Hartley Hall rebuild to provide Exhibition, Theatre & Youth Space	Developer and Church	Funded by developer of adjacent site	£1,340,000	Poor quality facilities for amateur theatre, as well as for youth & community functions	West	N/A	N/A	2011-2015	Necessary	CS10	Planning Application (ref. H/04296/08) - figure as quoted in the viability appraisal as exceptional additional cost of building
Delivery	Community Facilities	Specialised Community Facilities	Loss of existing Youth Centre facility on Barnet College Site will require replacement provision	LBB, Developer	Funded by developer of Barnet College Site	Unknown	If funding for replacement provision is not utilised for a multi-agency approach then the opportunity to improve services at reduced revenue funding costs will be lost.	West	AAP: Colindale	Barnet College (phase 1)	2016-2020	Necessary	CS10	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Delivery	Community Facilities	Specialised Community Facilities	New multi-screen cinema facility	BXC Partners, LBB	Funded by the BXC Partners		Will assist in ensuring Brent Cross retail + leisure offer remains competitive, appropriate for a new metropolitan town centre.	West	Brent Cross Cricklewood	1	2016-2020	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Community Facilities	Specialised Community Facilities	Public Art	BXC Partners, LBB, Arts Council	BXC Partner Contribution		Lower quality and less inviting areas of public realm	West	Brent Cross Cricklewood	1	2016-2020	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Community Facilities	Specialised Community Facilities	Public Art	BXC Partners, LBB, Arts Council	BXC Partner Contribution		Lower quality and less inviting areas of public realm	West	Brent Cross Cricklewood	2	2021-2025	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Community Facilities	Specialised Community Facilities	Childcare Facilities'	BXC Partners	Funded by the BXC Partners		Lack of accessible childcare facilities for construction and other jobs for local residents and new employees.	West	Brent Cross Cricklewood	2	2021-2025	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Community Facilities	Specialised Community Facilities	Public Art	BXC Partners, LBB, Arts Council	BXC Partner Contribution		Lower quality and less inviting areas of public realm	West	Brent Cross Cricklewood	3	2021-2025	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Community Facilities	Specialised Community Facilities	Public Art	BXC Partners, LBB, Arts Council	BXC Partner Contribution		Lower quality and less inviting areas of public realm	West	Brent Cross Cricklewood	4	2021-2025	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Community Facilities	Specialised Community Facilities	Childcare Facilities'	BXC Partners	Funded by the BXC Partners		Lack of accessible childcare facilities for construction and other jobs for local residents and new employees.	West	Brent Cross Cricklewood	4	2021-2025	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Community Facilities	Specialised Community Facilities	Public Art	BXC Partners, LBB, Arts Council	BXC Partner Contribution		Lower quality and less inviting areas of public realm	West	Brent Cross Cricklewood	5	post 2026	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Community Facilities	Specialised Community Facilities	Childcare Facilities'	BXC Partners	Funded by the BXC Partners		Lack of accessible childcare facilities for construction and other jobs for local residents and new employees.	West	Brent Cross Cricklewood	5	post 2026	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Need	Community Facilities	Shared Community Centre	New or refurbished community facilities are needed in variety of locations to address existing issues as well as population growth & diversification of social activities				The quality, availability, affordability, diversity and location of facilities will impact on the capacity of community groups and local organisations to address change & play as role in enabling the 'Big Society'.	All	N/A	N/A	2011-2015		CS10	CommUnity Barnet
Need	Community Facilities	Shared Community Centre	Community facilities needed in Edgware Ward to meet existing space shortage.	LBB / Developers	Unfunded	£2,600,000	Lack of available space for local groups and societies to form and take on the work of developing the Big Society	West	Town Centre: Edgware	N/A	2011-2015		CS10	CommUnity Barnet
Delivery	Community Facilities	Shared Community Centre	Replacement community facility for existing community centres lost through regeneration	Baratt's, LBB	Direct provision (delivered by developer of West Hendon Estate)	TBC - speak to dev. partners	If not replaced then redevelopment will lead to a loss of existing community facility provision in this locality	West	West Hendon Estate	TBC	2016-2020	Necessary	CS2 & CS10	West Hendon Estate Planning Application (ref: W13937/04 dated 01 July 2008).
Delivery	Community Facilities	Shared Community Centre	Community Buildings'	BXC Partners	Funded by the BXC Partners		Assist develop sense of place and focus of new community	West	Brent Cross Cricklewood	1	2016-2020	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Community Facilities	Shared Community Centre	Community Buildings'	BXC Partners	Funded by the BXC Partners		Assist develop sense of place and focus of new community	West	Brent Cross Cricklewood	2	2021-2025	Necessary	CS2 & CS10	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Community Facilities	Shared Community Centre	New Community Centre (440m2)	Developer, Community Trust	Funded by developer of Stonegrove Estate	£1,865,606	Development plans would be unsound if this community facility is not delivered	West	Stonegrove and Spur Road Estate	2	2016-2020	Necessary	CS10	Stonegrove and Spur Road Planning Application (ref. W/13582/E/07)
Delivery	Community Facilities	Shared Community Centre	New Church Building (400m2)	Developer, Diocese	Funded by developer of Stonegrove Estate	£1,948,588	Development plans would be unsound if this community and nursery facility is not delivered	West	Stonegrove and Spur Road Estate	4	2021-2025	Necessary	CS10	Stonegrove and Spur Road Planning Application (ref. W/13582/E/07), cost detailed in the financial model.
Need	Community Facilities	Community Offices	Cultural activities and specialised help, advice & signposting to services require suitable facilities to be delivered as need and opportunities arise				There is a risk that local groups are unable to develop if insufficient opportunities arise for co-location or co-delivery of services.	All	N/A	N/A	2011-2015		CS10	CommUnity Barnet
Delivery	Community Facilities	Community Offices	New 'Community Office' on Colindale Hospital Site for 'Wright Trust' and other local groups	Fairview	Direct Provision (developer obligation - Colindale Hospital)	£50,000	If the new facility is not delivered then the Wright Trust will not have a space from which to operate its community building activities	West	AAP: Colindale	Colindale Hospital	2011-2015	Necessary	CS10	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Need	Community Facilities	Other	The capacity of cemeteries was assessed by the London Plan as sufficient for 125 years			N/A	No risk	All	N/A	N/A	2011-2015		CS10	Cemetery Research Group's March 2011

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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	OPEN SPACES SPORT & RECREATION	OPEN SPACES SPORT & RECREATION	<p>The PPS 17 Assessment identified the need for additional natural and park spaces to provide sufficient open space to meet minimum standards, alongside an analysis of required playing pitches and play facilities; however it did not provide a strategy for delivering required leisure and open spaces provision. Combined with the impact of the recession on public funding for leisure and open spaces provision this has resulted in the development of a strategic review to determine where the Council can best focus its resources on provision of services for local communities.</p> <p>Localised plans for delivering required open space and sporting infrastructure have been developed for the key growth areas and regeneration estates, but in the case of open spaces in Colindale and for leisure provision in general a full investment plan is required to maximise the value of funds through clear goals. Recent successful projects have delivered new play facilities and a re-landscaped 'Heybourne Park', to support these successes a greater understanding of the relationship between capital investment and quality estate management is required.</p>											
Need	Open Spaces, Sport and Recreation	Sports Centre	Sports hall usage & access assessment as part of Leisure Review	LBB, GLL, Sport England	Unknown Need	N/A	Analysis of supply and demand issues is being assessed through Leisure Services assessment	All	N/A	N/A	2011-2015		CS10	Leisure Review Scoping (October 2011)
Delivery	Open Spaces, Sport and Recreation	Sports Centre	Replacement Sailing Base on Welsh Harp	Baratt's, LBB	Funded by developer of West Hendon Estate	£834,425	Redevelopment of the West Hendon Estate will require the existing facility to be replaced	West	West Hendon Estate	TBC	2011-2015	Necessary	CS7	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Open Spaces, Sport and Recreation	Sports Centre	Replacement Hendon Leisure Centre	LBB, GLL, Sport England, BXC Partners	Funded by the BXC Partners		The Brent Cross development is unacceptable unless these facilities are reprovided.	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Open Spaces, Sport and Recreation	Sports Pitches	Need for 129ha of additional Playing Pitches to meet Sport England minimum standards	[Unknown]	Requires 'design-led mechanism' at local level to resolve	Unknown		All	N/A	N/A	2011-2015		CS7	PPS 17 - Open Spaces Assessment: http://www.barnet.gov.uk/open-space-assessment-dec09.pdf
Need	Open Spaces, Sport and Recreation	Sports Pitches	Synthetic pitches usage & access assessment as part of Leisure Review	LBB, GLL, Sport England	Unknown Need	N/A	Analysis of supply and demand issues is being assessed through Leisure Services assessment	All	N/A	N/A	2011-2015		CS10	Leisure Review Scoping (October 2011)
Need	Open Spaces, Sport and Recreation	Sports Pitches	Replacement or enhanced of sports pitches will be needed to mitigate for school on Mill Hill Sports Club Site	LBB	Orion School proposals must design in this pitch enhancement for the local community	<i>Costed under Orion School rebuild</i>	Suitable alternative pitch improvements / upgrades will be required locally to address the loss of sports pitches in the Woodcroft Park area	West	N/A	N/A	2011-2015		CS10	Property Services (August 2011) and Cabinet Resources Committee report 27 September 2011 'Permanent expansion of primary school provision in the Colindale area' (agenda item 7).
Delivery	Open Spaces, Sport and Recreation	Sports Pitches	Montrose Park Sports Pitches + Clubhouse	LBB, Sport England	Funded by developer of Colindale Hospital	£150,000	If usage by local groups and clubs is not increased then opportunity for passive surveillance of the park lost	West	N/A	Colindale Hospital	2011-2015	Necessary	CS7	Colindale Hospital Planning Application (ref. H/00342/09)
Delivery	Open Spaces, Sport and Recreation	Sports Pitches	King George Playing Fields Sports Pitches Drainage + Upgrade	LBB, Sport England	Funded by developer of Dollis Valley Estate Up to £5m has been set aside for all open space / sports s106 requirements (subject to clarification through planning application)	£2,500,000	Improved connections to surrounding open spaces is required to maximise access for existing & future residents.	East	Dollis Valley Estate	Unknown	2011-2015	Necessary	CS7	Dollis Valley Estate Competitive Dialogue process - agreed indicative s106 pot to apply to all bids within the process.

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Open Spaces, Sport and Recreation	Sports Pitches	Mill Hill East Primary School Multisport Pitch	LBB, Sport England	Funded by developer of Mill Hill East	Costed under the provision of the school	Insufficient access to high quality sports facilities for the new Primary School	East	AAP: Mill Hill East	TBC	2016-2020	Critical	CS7	Mill Hill East Area Action Plan http://www.barnet.gov.uk/mill-hill-aap-jan-2009-policies-pt2.pdf
Delivery	Open Spaces, Sport and Recreation	Sports Pitches	Clitterhouse Playing Fields Upgrading	LBB, GLL, Sport England, BXC Partners	Funded by the BXC Partners		The Brent Cross development is unacceptable unless these improvements are provided.	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Sports Pitches	Clitterhouse Playing Fields new pavilion with changing facilities	LBB, GLL, Sport England, BXC Partners	Funded by the BXC Partners		The Brent Cross development is unacceptable unless these new facilities are provided.	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Sports Pitches	Aerodrome Park quality pitches made accessible for public usage	LBB, Sport England	Funded by developer of Peel Centre Site	Costed under 'Aerodrome Park' in green infrastructure	The existing Police Training College has sports pitches and therefore some must be reprovided within the delivery of the new Aerodrome Park	West	AAP: Colindale	Peel Centre East	2021-2025	Necessary	CS7	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Delivery	Open Spaces, Sport and Recreation	Sports Pitches	Ball Park / Sports Pitch	LBB, Sport England, Barratt's	Funded by developer of West Hendon Estate	£115,000	The West Hendon Estate development is unacceptable unless this is provided as part of open spaces landscaping	West	West Hendon Estate	TBC	2016-2020	Necessary	CS7	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Open Spaces, Sport and Recreation	Sports Pitches	Clitterhouse Playing Fields (all-weather sports pitches)	LBB, GLL, Sport England, BXC Partners, Whitefield School	Funded by the BXC Partners		The Brent Cross development is unacceptable unless these new facilities are provided.	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Open Spaces, Sport and Recreation	Swimming Pools	Swimming pool usage & access assessment as part of Leisure Review	LBB, GLL, Sport England	[Unknown Need]	N/A	Analysis of supply and demand issues is being assessed through Leisure Services assessment	All	N/A	N/A	2011-2015		CS10	Leisure Review Scoping (October 2011)
Delivery	Open Spaces, Sport and Recreation	Swimming Pools	Upgrade to Church Farm Swimming Pool	LBB, Sport England	Unfunded	Unknown	Pool has limited lifespan and will need reconstruction.	West	N/A	N/A	2016-2020	Necessary	CS10	Leisure Review Scoping (October 2011)
Delivery	Open Spaces, Sport and Recreation	Swimming Pools	Upgrade to Cophall Swimming Pool	LBB, Sport England	Unfunded	Unknown	Pool has limited lifespan and will need reconstruction.	West	N/A	N/A	2016-2020	Necessary	CS10	Leisure Review Scoping (October 2011)
Need	Open Spaces, Sport and Recreation	Play Facilities	Need for 35 LEAPS & 24 NEAPS, in total 3.8ha of additional Play Space to meet NPFA standards	TBC	Requires 'design-led mechanism' at local level to resolve	Unknown	Insufficient areas of play leading to enhanced risk of social exclusion issues	All	N/A	N/A	2011-2015		CS7	PPS 17 - Open Spaces Assessment: http://www.barnet.gov.uk/open-space-assessment-dec09.pdf
Delivery	Open Spaces, Sport and Recreation	Play Facilities	Improvements to Play Facilities at Lyttleton Playing Fields	Friends Group, SMP Playground Limited, LBB	Big Lottery Fund and LBB	£70,000	If the agreed improvements are slow to be delivered funding and / or local trust in delivery could be affected	West	N/A	N/A	2011-2015	Necessary	CS7	Cabinet Resources Committee Report - Dated: 28 July 2011 (Decision Item 9)
Delivery	Open Spaces, Sport and Recreation	Play Facilities	Improvements to 2 play spaces along Lower Dollis Valley Greenwalk	Resident's group SMP Playground Limited, LBB	Mayor's Help a London Park initiative	£140,000	If the agreed improvements are slow to be delivered funding and / or local trust in delivery could be affected	West	N/A	N/A	2011-2015	Necessary	CS7	Cabinet Resources Committee Report - Dated: 28 July 2011 (Decision Item 9)
Delivery	Open Spaces, Sport and Recreation	Play Facilities	Improvements to Play Areas at Mill Hill Park and Friary Park	Friends Group, SMP Playground Limited, LBB	Planning Contributions	£120,000	If the agreed improvements are slow to be delivered funding and / or local trust in delivery could be affected	West	N/A	N/A	2011-2015	Necessary	CS7	Cabinet Resources Committee Report - Dated: 28 July 2011 (Decision Item 9)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Open Spaces, Sport and Recreation	Play Facilities	Creation of new LAP 'mini park' within site	Fairview, LBB	Funded by developer of Colindale Hospital	In Kind	If this LEAP is not provided then the need for local play space for early years children will not be accommodated.	West	AAP: Colindale	Colindale Hospital	2011-2015	Necessary	CS7	Colindale Hospital Planning Application (ref. H/00342/09)
Delivery	Open Spaces, Sport and Recreation	Play Facilities	Improvements to Play Facilities at either Stonegrove Park or Edgewarebury Park	Community Panel, LBB and Developers	Funded by developer of Stonegrove Estate	£75,000	Improvements to Play Facilities are required in the local area in order to deliver suitable youth facilities in the locality	West	Stonegrove and Spur Road Estate	2	2011-2015	Necessary	CS7	Stonegrove and Spur Road Planning Application (ref. W/13582/E/07)
Delivery	Open Spaces, Sport and Recreation	Play Facilities	Creation of new 'Phase 1 NEAP for formal play'	Developers, LBB	Funded by developer of Grahame Pk Estate	Costed within overall park delivery cost	If this LEAP is not provided then the need for local play space for early years children will not be accommodated.	West	AAP: Colindale	Grahame Park (phase 1)	2011-2015	Necessary	CS7	Graham Park Planning Application (ref. W01731JS/04)
Delivery	Open Spaces, Sport and Recreation	Play Facilities	Improvements to Play Facilities at either Stonegrove Park or Edgewarebury Park	Community Panel, LBB and Developers	Funded by developer of Stonegrove Estate	£75,000	Improvements to Play Facilities are required in the local area in order to deliver suitable youth facilities in the locality	West	Stonegrove and Spur Road Estate	5	2016-2020	Necessary	CS7	Stonegrove and Spur Road Planning Application (ref. W/13582/E/07)
Delivery	Open Spaces, Sport and Recreation	Play Facilities	Creation of new 'Phase 5 LEAP mini park'	Developers, LBB	Funded by developer of Grahame Pk Estate	TBC - speak to dev. partners	If this LEAP is not provided then the need for local play space for early years children will not be accommodated.	West	AAP: Colindale	Grahame Park (phase 5)	2021-2025	Necessary	CS7	Graham Park Planning Application (ref. W01731JS/04)
Delivery	Open Spaces, Sport and Recreation	Play Facilities	Creation of new 'Phase 6 LEAP mini park'	Developers, LBB	Direct Provision: (developer obligation - Grahame Pk Estate)	TBC - speak to dev. partners	If this LEAP is not provided then the need for local play space for early years children will not be accommodated.	West	AAP: Colindale	Grahame Park (phase 6)	2021-2025	Necessary	CS7	Graham Park Planning Application (ref. W01731JS/04)
Need	Open Spaces, Sport and Recreation	Hard Landscaping	Urban spaces require high quality public areas to become successful & safe with high usage by people				Failure to deliver new urban spaces, particularly at transport interchanges will reduce the usage of the space & overall level of success	All	N/A	N/A	2011-2015		CS7	English Heritage Guidance - "Streets for All" London Streetscape Manual (2000)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Colindale Tube Piazza	Fairview, LBB	Funded by developer of Colindale Hospital	£2,800,000	Insufficient space at this key gateway, plus poor quality public realm and interchange	West	AAP: Colindale	Colindale Hospital (phase 1)	2011-2015	Critical	CS7	Colindale Hospital Planning Applications (ref. H/00342/09 and H/00343/09)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new 'hospital historic building square'	Fairview, LBB	Funded by developer of Colindale Hospital	Directly delivered by developer	Inappropriate setting for listed building if overcrowded by neighbouring dense buildings	West	AAP: Colindale	Colindale Hospital (phase 4)	2011-2015	Necessary	CS7	Colindale Hospital Planning Application (ref. H/00342/09 and H/00343/09)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Homezone gathering spaces / square	Developers, LBB	Funded by developer of Dollis Valley Estate	Directly delivered by developer	Given proximity to Greenbelt, the most suitable onsite open space needs to be informal and communal in nature	East	Dollis Valley Estate	Unknown	2011-2015	Necessary	CS7	Design for London surgery (Jan 2010) - initial design considerations for Dollis Valley Estate.
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new 'MHE Station Public Square'	LBB, Developer Partners	Funded by developer of Mill Hill East	Included in Panorama Park costs	required to provide sufficient and accessible open space	East	AAP: Mill Hill East	TBC	2016-2020	Critical	CS7	Planning Application (ref. H/04017/09, live application - pending grant of permission)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new 'Market Square'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new 'Brent Cross Main Square'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Station Square' (see also 'transport interchange')	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

Need or Delivery	Primary Category	Secondary Category	Item	Delivery Partners	Delivery Mechanism (completed projects are highlighted in green - applies to all 2006-2010 projects)	Cost (italicised if estimate, blacked-out if commercially sensitive)	Risks / Contingency	Area (West / East)	Sub Area	Phase	Period (2006-2010, 2011-2015, 2016-2020, 2021-2025 post 2026)	Priority (Critical Necessary Preferred)	Core Strategy Policy Source	Data Source
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of 'Brent Cross LUL Square' (see also 'transport interchange')	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new informal squares	Developers, LBB	Funded by developer of NLBP	Unknown	Given mixed usage of the site, a suitable design would need to create informal spaces for meeting and 'hanging out'	East	NLBP	Unknown	2016-2020	Necessary	CS7	Design for London surgery (Jan 2010) - initial design considerations for NLBP.
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	2 Bridge linkages from Silkstream to Welsh Harp Ecological Zone	Baratt's, LBB	Funded by developer of West Hendon Estate		Lack of access to surrounding parks and recreation spaces would maintain a sense of isolation in the area.	West	West Hendon Estate	Various Phases	2016-2020	Necessary	CS7	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new square	Baratt's, LBB	Funded by developer of West Hendon Estate	TBC	Lack of a central focus will maintain the estate mentality not provide a community hub		West Hendon Estate	TBC	2016-2020	Necessary	CS7	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Community Square	Developers, LBB	Direct Provision: (developer obligation - Stonegrove Estate)	Unknown - costed within 'external works budget'	Lack of a local outdoor social space as well as poor setting for the new community hub	West	Stonegrove and Spur Road Estate	TBC	2016-2020	Critical	CS7	Stonegrove and Spur Road Planning Application (ref. W13582/E/07)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new 'School / Whitefield Square'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new 'Gas Governor Square'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	4	2021-2025	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new 'Station Square'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	5	post 2026	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new 'Tower Square'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	6	post 2026	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Hard Landscaping	Creation of new 'Community Square'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	7	post 2026	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Open Spaces, Sport and Recreation	Parks	Need for 4 District Parks to meet Mayors minimum standard	None	Requires 'design-led mechanism' at local level to resolve		Not meeting requirements from PPS17 study would impact on quality of life for residents.	All	N/A	N/A	2011-2015		CS7	Planning Policy Guide 17 - Open Spaces Assessment: http://www.barnet.gov.uk/open-space-assessment-dec09.pdf
Need	Open Spaces, Sport and Recreation	Parks	Need for 29 Local Parks to meet Mayors minimum standard	None	Requires 'design-led mechanism' at local level to resolve		Not meeting requirements from PPS17 study would impact on quality of life for residents.	All	N/A	N/A	2011-2015		CS7	Planning Policy Guide 17 - Open Spaces Assessment: http://www.barnet.gov.uk/open-space-assessment-dec09.pdf
Need	Open Spaces, Sport and Recreation	Parks	NW London Regional Park Creation (strategy, feasibility and delivery planning)	DfL, Mayor of London, LBB	Unfunded	£100,000	Failure to create new open spaces and linkages between would lead to the loss of the opportunity to profile Barnet as having a 'regional park'	All	N/A	N/A	2011-2015		CS7	Mayor of London's Green Grid Strategy 'Barnet Plateau and Brent River Valley'
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Panoramic Park'	LBB, Developer Partners	Funded by developer of Mill Hill East		required to provide sufficient and accessible open space	East	AAP: Mill Hill East	TBC	2011-2015	Necessary	CS7	Mill Hill East (Live) Planning Application (ref. H/04017/09) - Independent Viability Appraisal
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Officers Mess Public Gardens'	LBB, Developer Partners	Funded by developer of Mill Hill East		required to provide sufficient and accessible open space	East	AAP: Mill Hill East	TBC	2011-2015	Necessary	CS7	Planning Application (ref. H/04017/09, live application - pending grant of permission)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new Finchley Memorial Hospital Park	LBB, NHS Barnet	Funded by Elevate Partnership	In Kind	Failure to improve quality of patient experience and local lifestyles as well as breach to Covenants on the land	East	N/A	N/A	2011-2015	Necessary	CS7	Finchley Memorial Hospital Planning Application (ref. F/03573/09, dated 20 April 2010)
Need	Open Spaces, Sport and Recreation	Parks	Strategic Colindale Plan for holistic park and open spaces delivery	Developers, LBB	Funded by developer of Colindale Hospital	£15,000	Improvements in colindale do not deliver a joined-up mix of provision for all needs	West	AAP: Colindale	Colindale Hospital (phase 1)	2011-2015		CS7	Colindale Hospital Planning Application (ref. H/00342/09)
Delivery	Open Spaces, Sport and Recreation	Parks	Bridge access link from Colindale Hospital Site into Montrose Park	Fairview, LBB	Funded by developer of Colindale Hospital	£173,000	Lack of access to Montrose Park for walkers and cyclists	West	AAP: Colindale	Colindale Hospital (phase 2)	2011-2015	Critical	CS7	Colindale Hospital Planning Application (ref. H/00342/09)
Delivery	Open Spaces, Sport and Recreation	Parks	Improvements to Montrose Park environment	Fairview, LBB	Funded by developer of Colindale Hospital	£133,722	Poorer quality park facility and displacement of young adults into areas used by children	West	AAP: Colindale	Colindale Hospital (phase 2)	2011-2015	Necessary	CS7	Colindale Hospital Planning Application (ref. H/00342/09)
Delivery	Open Spaces, Sport and Recreation	Parks	Improvements to Rushgrove Park	Developers, LBB	Funded by developer contributions (TBC)	Unknown	Poorer quality park facility and local environment	West	AAP: Colindale	Various Phases	2011-2015	Necessary	CS7	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Delivery	Open Spaces, Sport and Recreation	Parks	Improvements to Colindale Park	Developers, LBB	Funded by developer contributions (TBC)	£23,000	Poorer quality park facility and local environment	West	AAP: Colindale	Various Phases	2011-2015	Necessary	CS7	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Delivery	Open Spaces, Sport and Recreation	Parks	Improvements to the SilkStream Park	Developers, LBB	Funded by developer contributions (TBC)	Unknown	Poorer quality park facility particularly for the target groups of children and elderly	West	AAP: Colindale	Various Phases	2011-2015	Necessary	CS7	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Central Community Park'	LBB, Developer Partners	Funded by developer of Mill Hill East		required to provide sufficient and accessible open space	East	AAP: Mill Hill East	TBC	2016-2020	Necessary	CS7	Planning Application (ref. H/04017/09, live application - pending grant of permission)
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Eastern Park'	LBB, Developer Partners	Funded by developer of Mill Hill East		required to provide sufficient and accessible open space	East	AAP: Mill Hill East	TBC	2016-2020	Necessary	CS7	Planning Application (ref. H/04017/09, live application - pending grant of permission)
Delivery	Open Spaces, Sport and Recreation	Parks	Improvements to 'Bittacy Hill Park'	LBB, Developer Partners	Funded by developer of Mill Hill East		required to provide access to and recreation improvements to neighbouring facility.	East	AAP: Mill Hill East	TBC	2016-2020	Necessary	CS7	Mill Hill East (Live) Planning Application (ref. H/04017/09) - Independent Viability Appraisal
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Aerodrome Park'	Developers, LBB	Funded by developer of Peel Centre Site	Unknown	This parkland is key meet long term open space need from housing in the Aerodrome Road Corridor of Change.	West	AAP: Colindale	Peel Centre East	2016-2020	Necessary	CS7	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Delivery	Open Spaces, Sport and Recreation	Parks	Reconstruction of 'Grahame Park Open Space' (2nd phase)	Choices for Grahame Park, LBB	Funded by developer of Grahame Pk Estate		Lack of local outdoor space & sense of transformation accompanying new buildings	West	AAP: Colindale	Grahame Park (phase 2a 3a & 5a)	2016-2020	Necessary	CS7	Grahame Park Planning Application (ref. W01731JS/04) and costing information from Choices for Grahame Park (26/08/2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Southern Park'	Choices for Grahame Parks, LBB	Funded by developer of Grahame Pk Estate		Lack of local outdoor space & sense of transformation accompanying new buildings	West	AAP: Colindale	Grahame Park (phase 1b 2c & 3b)	2016-2020	Necessary	CS7	Grahame Park Planning Application (ref. W01731JS/04) and costing information from Choices for Grahame Park (26/08/2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Reconstruction of 'York Park'	Baratt's, LBB	Funded by developer of West Hendon Estate	£130,000	Development would lead to a poor local environment if the park is not re-landscaped	West	West Hendon Estate	TBC	2016-2020	Necessary	CS7	West Hendon Estate Planning Application (ref. W13937/04)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Open Spaces, Sport and Recreation	Parks	Reconstruction of 'Clitterhouse Fields as Destination Park' (pt 1)	BXC Partners, LBB	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Eastern Brent Riverside Park' (pt 1)	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Improvement to existing 'Claremont Park'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of Clarefield Park (Temporary)	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Northern Park'	Choices for Grahame Park, LBB	Funded by developer of Grahame Pk Estate		Lack of local outdoor space & sense of transformation accompanying new buildings	West	AAP: Colindale	Grahame Park (phase 4b)	2021-2025	Necessary	CS7	W01731JS/04) and costing information from Choices for Grahame Park (26/08/2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Improvement to existing 'Sturgess Park'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	2	2021-2025	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Reconstruction of 'Clitterhouse Fields as Destination Park' (pt 2)	BXC Partners, LBB	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Central Brent Riverside Park' (pt 2)	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	2	2021-2025	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Western Brent Riverside Park' (pt 3)	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	3	2021-2025	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Improvements to 'Millenium Green' park	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	4	2021-2025	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Brent Terrace Park'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	5	post 2026	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Parks	Creation of new 'Office District Park'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	7	post 2026	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Need for 10 natural spaces totalling 48ha to enable access to all.	TBC	Requires 'design-led mechanism' at local level to resolve	Unknown	Not meeting requirements from PPS17 study would impact on quality of life for residents.	All	N/A	N/A	2011-2015		CS13	Planning Policy Guide 17 - Open Spaces Assessment: http://www.barnet.gov.uk/open-space-assessment-dec09.pdf
Need	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Enhancement of Watling Chase Community Forest + (Greenbelt Strategy & Management Plan)	Hertfordshire CC, NW Green Arc team (Bucks CC), LBB		£100,000	Failure to improve environment and access to Watling Chase Community Forest will affect the value and quality of life benefits to residents from the Green Belt	West	N/A	N/A	2011-2015		CS7	http://www.woodlandtrust.org.uk/en/our-woods/ourwoodsmanagementplans/whiting-s-wood-management-plan.pdf and http://www.herts.gov.uk/planning/dnld_200074/pl_spgwatling.pdf?action=open
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Improvements to Greenbelt access and landscape quality for local residents.	Developers, LBB	Funded by developer of Dollis Valley Estate		Reduced accessibility to open space for existing and future residents if not considered	East	Dollis Valley Estate	Unknown	2011-2015	Necessary	CS7	Design for London surgery (Jan 2010) - initial design considerations for Dollis Valley Estate.
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Enhancement of existing 'Scout Camp + Woods'	LBB, Developer Partners	Funded by developer of Mill Hill East		required in order to improve screening & woodland quality of campsite in relation to dev.	East	AAP: Mill Hill East	TBC	2016-2020	Necessary	CS7	Mill Hill East (Live) Planning Application (ref. H/04017/09) - Independent Viability Appraisal

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Ecology Improvements to Edgwarebury Park	Developers, LBB	Funded by developer of Stonegrove Estate	£20,000	Loss of wildlife spaces in the development area to more managed and intensified uses	West	Stonegrove and Spur Road Estate	TBC	2016-2020	Necessary	CS7	Stonegrove and Spur Road Planning Application (ref. W/13582/E/07)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Creation of 'New Green Axis' between estate & ecological buffer zone.	Baratt's, LBB	Funded by developer of West Hendon Estate	Directly delivered by developer	Wildlife movement to and from the SSSI will be affected if corridors aren't delivered	West	West Hendon Estate	TBC	2016-2020	Necessary	CS7	West Hendon Estate Planning Application (ref. W/13937/04)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Creation of new 'River Brent Nature Park'	LBB, BXC Partners	Funded by the BXC Partners	required as part of the open space strategy related to the comprehensive redevelopment	required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Creation of 'Brent Terrace Green Corridor'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Creation of 'School Green Corridor'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	1	2016-2020	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Eastern Park (pt 1)	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	2	2021-2025	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Creation of new 'Clitterhouse Stream Nature Park'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	2	2016-2020	Critical	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Creation of 'Eastern Lands Green Corridor 1'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	2	2021-2025	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Eastern Park (pt 2)	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	3	2021-2025	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Creation of 'Eastern Lands Green Corridor 2'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	3	2021-2025	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Creation of new 'Railway Lands Nature Park'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	5	post 2026	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Creation of 'North Circular Green Corridor'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	6	post 2026	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Delivery	Open Spaces, Sport and Recreation	Natural Open Spaces & Green Chains	Creation of new 'Northern Lands Nature Park'	LBB, BXC Partners	Funded by the BXC Partners		required as part of the open space strategy related to the comprehensive redevelopment	West	Brent Cross Cricklewood	6	post 2026	Necessary	CS2 & CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)	
Need	Open Spaces, Sport and Recreation	Biodiversity	Delivery of biodiversity improvements is to be led by community and supported through natural open spaces provision listed above					Loss of the diversity of fauna in the area is a risk if sufficient steps aren't taken to improve the habitats and therefore life chances of existing local as well as migratory wildlife	All	N/A	N/A	2011-2015		CS7	Guidance for Local Authorities on Implementing the Biodiversity Duty (Defra)
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Thames River Basin designation as Water Protection Zone	Environment Agency	EU Water Framework Directive		[Unknown]	A cohesive regional approach is the only means to address this issue properly	All	N/A	N/A	2011-2015	Necessary	CS13	DEFRA - Thames River Basin Management Plan (Appendix C.3)
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Controls on Abstraction of Groundwater by Agriculture and Industry	Environment Agency	EU Water Framework Directive	[Unknown]	A cohesive regional approach is the only means to address this issue properly	All	N/A	N/A	2011-2015	Necessary	CS13	DEFRA - Thames River Basin Management Plan (Appendix C.4)	

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Open Spaces, Sport and Recreation	Biodiversity	All developments posing a risk to protected species will require ecology surveys and mitigation measures	Developers, LBB	Funded by developers as appropriate	Cost identified and met by development as they arise	Risk to protected species found on site if development does not provide mitigation	All	N/A	Planning	2011-2015	Necessary	CS7	Discussion with Planning Staff (October 2009)
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Ecology surveys will be required at each stage of development	Developers, LBB	Funded by developer of Mill Hill East	Cost identified and met by development as they arise	Insufficient mitigation if impacts on Bats & other species not considered	East	AAP: Mill Hill East	Planning	2011-2015	Necessary	CS7	Mill Hill East Area Action Plan, Policy MHE9: Protection of the Greenbelt and Biodiversity.
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Protection of Silk Stream corridor as well as delivery of new green routes & habitats to enhance biodiversity	Developers, LBB	Funded by developer contributions and design requirements	Unknown	Loss of opportunity to improve Blue Ribbon and Green Networks if opportunities are not realised and biodiversity measures aren't prioritised.	West	AAP: Colindale	Planning	2011-2015	Necessary	CS7	Colindale Area Action Plan, Policy 5.5: Open Space and Biodiversity in Colindale.
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Improved habitat quality & connectivity, particularly around River Brent and Clitterhouse Stream.	Developers, LBB	Funded by the BXC Partners		Insufficient mitigation of development impacts if progress of development is not monitored for its impact	West	Brent Cross Cricklewood	Planning	2011-2015	Critical	CS7	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Introduction of bat boxes and improved planting measures	Middlesex University, LBB	Funded by Middlesex University	£2,500	Risk to protected species found on site if development does not provide mitigation	West	NLBP	TBC	2016-2020	Necessary	CS7	Discussion with Planning Staff (October 2009)
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Improvements to Welsh Harp	Baratt's, LBB	Funded by developer of West Hendon Estate	£148,648	Welsh Harp SSSI would be placed at risk by development if not properly protected	West	West Hendon Estate	TBC	2016-2020	Critical	CS7	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Ecological Mitigation Measures	Barratts, LBB	Funded by developer of West Hendon Estate	£500,000	Loss of opportunity to improve riverine habitat and promote biodiversity as well as risk to SSSI if measures not delivered	West	West Hendon Estate	TBC	2016-2020	Critical	CS7	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Dollis Brook upgrade 'Poor' to 'Good' (dissolved oxygen + phosphate issues)	Environment Agency	EU Water Framework Directive	Too technical + expensive for 2015 plans	Biodiversity of aquatic and riverine fauna & flora will be affected until this is addressed	All	N/A	N/A	2021-2025	Necessary	CS13	DEFRA - Thames River Basin Management Plan (River R19)
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Dollis Brook upgrade 'Moderate' to 'Good' (hydromorphology)	Environment Agency	EU Water Framework Directive	Too technical + expensive for 2015 plans	Access to and quality of local fluvial environment will remain poor & underutilised.	All	N/A	N/A	2021-2025	Necessary	CS13	DEFRA - Thames River Basin Management Plan (River R19)
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Silk Stream & Edgware Brook upgrade 'Poor' to 'Good' (dissolved oxygen + phosphates)	Environment Agency	EU Water Framework Directive	Too technical + expensive for 2015 plans	Biodiversity of aquatic and riverine fauna & flora will be affected until this is addressed	West	N/A	N/A	2021-2025	Necessary	CS13	DEFRA - Thames River Basin Management Plan (River R18)
Delivery	Open Spaces, Sport and Recreation	Biodiversity	Silk Stream & Edgware Brook upgrade 'Moderate' to 'Good' (hydromorphology)	Environment Agency	EU Water Framework Directive	Too technical + expensive for 2015 plans	Access to and quality of local fluvial environment will remain poor & underutilised.	West	N/A	N/A	2021-2025	Necessary	CS13	DEFRA - Thames River Basin Management Plan (River R18)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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	EMERGENCY SERVICES	EMERGENCY SERVICES	<p>The Metropolitan Police do not have any specific infrastructure requirements at this time but will be reviewing the forecasted growth in the Borough to assess future policing infrastructure requirements. However at the local level the needs in terms of the three key growth areas have been considered and details are listed below.</p> <p>The London Fire and Emergency Planning Authority produce three year safety strategies. The 2010-2013 plan does not identify planned growth as specifically increasing the risk profile of Barnet and therefore any need for additional infrastructure or equipment. However LFB officers are now working in detail with localised expectations of growth over the full IDP period, to analyse further the combined impact on stations such as Mill Hill and Hendon of multiple growth areas.</p> <p>The London Ambulance Trust do not have any identified infrastructure requirements at this time, but will review need and levels of risk over time.</p>											
Need	Emergency Services	Courts Service	HMCS do not have specific infrastructure requirements at this time	HMCS	N/A	N/A	None identified.	All	N/A	N/A	2006-2010		CS12	DPP LLP communication (acting on behalf of HMCS).
Need	Emergency Services	Policing	The Metropolitan Police do not have specific infrastructure requirements at this time but will be reviewing forecasted growth in the Borough	Met Police	Met Police	N/A	None identified.	Unknown	N/A	N/A	2011-2015		CS12	CGMS communication (acting on behalf of Metropolitan Police).
Delivery	Emergency Services	Policing	Safer Neighbourhoods Team Base (30m ²) at Mill Hill East Development	Met Police, Developer Partners	Funded by developer of Mill Hill East	TBC	The Mill Hill East development is unacceptable without these facilities being provided.	East	AAP: Mill Hill East	TBC	2016-2020	Necessary	CS2 & CS12	Mill Hill East Area Action Plan http://www.barnet.gov.uk/mill-hill-aap-jan-2009-policies-pt2.pdf
Delivery	Emergency Services	Policing	Police Kiosk (186sqm) within retail area	Met Police, Developer Partners	Funded by the BXC Partners		The Brent Cross development is unacceptable without these facilities being provided.	West	Brent Cross Cricklewood	1 or 2	2016-2020	Necessary	CS2 & CS12	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Emergency Services	Fire Services	4 fire stations local to Barnet and 4 fire stations neighbouring Barnet - no extra sites required. Instead consolidation of specialist equipment and teams	LFB		N/A	Currently provision across the fire stations is sufficient. With most fire stations having capacity for at least 2 engines but only 1 located on site, so there is existing space should the risk profiles increase in any particular area.	All	N/A	N/A	2011-2015		CS1	LFB communication
Delivery	Emergency Services	Fire Services	Finchley Fire Station to move to a more suitable location on strategic road network in the medium term	LFB	Funded by London Fire Brigade and sale of current site	£5,000,000	Slower response times to certain Southern and South Eastern parts of the borough if not provided direct access to the North Circular Road.	East	N/A	N/A	2016-2020	Necessary	CS1	LFB Asset Management Plan 2009 - Confirmed in email dated 27 July 2010.
Need	Emergency Services	Ambulance Service	No additional facilities are currently required to meet needs of growth	London Ambulance Trust	N/A	N/A	A review of this position will be required in the medium term to assess impact of West of the Borough	All	N/A	N/A	2011-2015		CS1	LFB communication

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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	ENERGY	ENERGY	The GLA 'Heatmapping' Project identified five areas as sites capable of delivering a decentralised energy centre and network. Four of the sites require an energy strategy to be developed, and Brent Cross where this was part of the planning application is now ready for detailed feasibility. Delivery of these networks will be an important local step towards supporting the 2030 Mayoral Target for a 20% reduction in energy usage by buildings through the Renewable Heat Initiative. Added to this is a desire for 5% of energy use by buildings to be through Renewable Energy sources linked to the Feed-In-Tariff scheme. The Government's Green Deal combined with Code for Sustainable Homes standards for new buildings is then anticipated to influence the design of local development and support the retrofitting of existing buildings with energy efficiency measures.											
Need	Energy	Decentralised Energy	Feasibility work is required to enable delivery of sustainable energy futures in the key growth areas.				There is a present opportunity to install decentralised energy networks, not doing so at the time of construction will mean they are unlikely to ever be an affordable proposition.	All	N/A	N/A	2011-2015		CS13	Powering Ahead - Delivering a low carbon energy future for London (http://legacy.london.gov.uk/mayor/publications/2009/docs/powering-ahead141009.pdf)
Delivery	Energy	Decentralised Energy	Increased uptake of onsite renewables by community groups and householders	DECC	Feed-in-tariff Scheme	Unknown	Without private homeowner engagement in renewables, the opportunity for carbon reduction and improved energy security will be missed	All	N/A	N/A	2011-2015	Necessary	CS13	The Feed-in Tariffs Order 2010: http://www.ofgem.gov.uk/Sustainability/Environment/fits/Pages/fits.aspx
Delivery	Energy	Decentralised Energy	Mill Hill East District Heating Network (feasibility and costing)	Developers, GLA, LBB	Funded by developer of Mill Hill East		Without sufficient enforcement and support for strong planning controls then the opportunity will be lost	East	AAP: Mill Hill East	Various Phases	2011-2015	Critical	CS13	GLA Heat Mapping Project - June 2010
Delivery	Energy	Decentralised Energy	Combined Heat and Power Plant with district network to serve all residential units	Developer and ESCO	Funded by developer of Stonegrove Estate and Partner Energy Service Company	Included within figure for energy efficiencies	Without sufficient enforcement and support for strong planning controls then the opportunity will be lost	West	Stonegrove and Spur Road Estate	Phase 1	2011-2015	Necessary	CS13	Stonegrove and Spur Road Planning Application (ref. W/13582/E/07)
Delivery	Energy	Decentralised Energy	Colindale District Heating Network (feasibility and costing)	Developers, GLA, LBB	Funded by developers of Colindale Hospital, Peel Centre Sites and Beaufort Park)	In Kind	Without sufficient enforcement and support for strong planning controls then the opportunity will be lost	West	AAP: Colindale	Various Phases	2011-2015	Critical	CS13	GLA Heat Mapping Project - June 2010
Delivery	Energy	Decentralised Energy	Combined Heat and Power Plant	Developer and ESCO	Funded by developer of Colindale Hospital and Partner Energy Service Company	In Kind	Without sufficient enforcement and support for strong planning controls then the opportunity will be lost	West	AAP: Colindale	Colindale Hospital	2011-2015	Critical	CS13	Colindale Hospital Planning Application
Delivery	Energy	Decentralised Energy	Combined Heat and Power / Combined Cooling, Heat & Power	Developers, GLA, LBB	Funded by the BXC Partners		Without sufficient enforcement and support for strong planning controls then the opportunity will be lost	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS13	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Energy	Energy Efficiency	Energy efficiency measures should be delivered to reduce household & employer energy consumption.				Supporting homeowners to reduce fuel consumption and new developments to be more energy efficient will reduce infrastructure costs, consumer bills and emissions.	All	N/A	N/A	2011-2015		CS13	Powering Ahead - Delivering a low carbon energy future for London (http://legacy.london.gov.uk/mayor/publications/2009/docs/powering-ahead141009.pdf)
Delivery	Energy	Energy Efficiency	All new homes built to Code for Sustainable Homes minimum levels	CLG, GLA, LBB	Core Strategy / Development Management Policies DPD	In Kind	Without sufficient enforcement and support for strong planning controls then the opportunity will be lost	All	N/A	N/A	2011-2015	Necessary	CS13	http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/local-development-framework/spds-sustainable-design-and-construction.htm

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Energy	Energy Efficiency	Public (Rented) Energy Efficiency Programme - CO2 emissions cut by 1.2 tonnes per property across 8,500 homes.	Barnet Homes	Barnet Homes 'Decent Homes' Programme	Unknown	If funding is withdrawn from the decent homes or revenue support for housing then this project could end up at risk.	All	N/A	N/A	2011-2015	Necessary	CS13	http://barnethomes.org/News%20and%20Publications/PressReleases/Pages/BarnetHomescreatesborough%E2%80%99sfirsteco-estate.aspx
Delivery	Energy	Energy Efficiency	Private (Rented) Energy Efficiency Programme	DECC	Green Deal	Unknown	Vulnerable residents could face unaffordable energy price increases and also loss of opportunity for reducing per capita carbon emissions	All	N/A	N/A	2011-2015	Necessary	CS13	Energy Bill - Department for Energy and Climate Change http://www.decc.gov.uk/en/content/cms/tackling/green_deal/green_deal.aspx
Delivery	Energy	Energy Efficiency	Private Sector (Owner-occupied) Energy Efficiency Programme	DECC	Green Deal	Unknown	Vulnerable residents could face unaffordable energy price increases and also loss of opportunity for reducing per capita carbon emissions	All	N/A	N/A	2011-2015	Necessary	CS13	Energy Bill - Department for Energy and Climate Change http://www.decc.gov.uk/en/content/cms/tackling/green_deal/green_deal.aspx
Delivery	Energy	Energy Efficiency	West Hendon Estate (energy strategy for delivering efficiencies)	Barratt's, GLA, LBB	Funded by developer of West Hendon Estate	In Kind	Without sufficient enforcement and support for strong planning controls then the opportunity will be lost	West	West Hendon Estate	1	2011-2015	Necessary	CS13	West Hendon Estate Planning Application (ref. W13937/04)
Delivery	Energy	Energy Efficiency	Stonegrove Estate (energy strategy for delivering efficiencies)	Developers, GLA, LBB	Funded by developer of Stonegrove Estate		Without sufficient enforcement and support for strong planning controls then the opportunity will be lost	West	Stonegrove and Spur Road Estate	1	2011-2015	Necessary	CS13	Stonegrove and Spur Road Planning Application (ref. W13582/E/07)
	WASTE	WASTE	The North London Waste Plan addresses the planned growth across the sub-region and provides a detailed plan for its delivery. Details of cost and funding will emerge in due course as this strategy is embedded in the delivery of London Plan objectives for increased management of waste within London such as through new recycling and energy from waste facilities.											
Need	Waste	Collection	Development at Mill Hill East requires relocation of the Council's Vehicle Depot to continue provision of household waste and recycling collection	LBB, NWLA	North London Waste Authority		Failure to provide suitable alternative accommodation for waste collection vehicles and their repair would prevent delivery of Mill Hill East AAP.	All	AAP: Mill Hill East	N/A	2011-2015		CS14	Mill Hill East Area Action Plan
Delivery	Waste	Collection	Council Vehicle Depot for refuse vehicles	LBB, LB Haringey, NWLA	Funded by sale of Pinkham Way site		Council requires a depot to continue service for residents	East	AAP: Mill Hill East	TBC	2011-2015	Critical	CS14	North London Waste Plan - Submission Version May 2011
Need	Waste	Management	North London Waste Plan identifies need for 14.1 hectares of new waste handling facilities across N. London subregion (10 potential sites were identified), supported by new local recycling centres	LBB, NWLA	North London Waste Authority		Failure to adequately support delivery of suitable waste-handling sites risks the ability to meet future waste-handling needs and reduce revenue cost implications. Failure to deliver suitable local recycling centres will lead to additional waste-handling costs.	All	N/A	N/A	2011-2015		CS14	North London Waste Plan - Submission Version May 2011
Delivery	Waste	Management	Vacuum Waste Network	BXC Partners, TIL	Funded by the BXC Partners (subject to feasibility)		Assist delivery of sufficient sustainability standards	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS14	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)

Infrastructure Delivery Plan
(Delegated Powers Report - November 2011)

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Delivery	Waste	Management	Waste Handling Facility (processing & transfer)	BXC Partners, NLWA	Funded by the BXC Partners		Required by NLWA as key piece of infrastructure as well as to deliver the sufficient sustainability standard for BXC	West	Brent Cross Cricklewood	1	2016-2020	Critical	CS2 & CS14	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)
Need	Waste	Household Recycling Centres	Consideration of the need for additional Community Recycling Centres is required.	LBB	N/A	?	Harder to deliver reductions in waste volume sent to landfill if increased recycling options & access not delivered.	All	N/A	N/A	2011-2015		CS14	North London Waste Plan - Submission Version May 2011
	FLOODING	FLOODING	Environment Agency Flood Risk modelling has only identified the Silk Stream in Colindale as an area at risk of flooding, measures to address this risk have been taken. However, strategically across London there is a need to increase flood prevention through localised measures to reduce the speed of drainage in response to storm events; particularly in light of the effect of garden conversions to parking spaces, house extensions and/or new housing/flats. Measures linked to reduction of sewer flooding were addressed under the physical infrastructure section, but are equally relevant here.											
Need	Flooding	Local Flood Prevention	New development needs to deliver solutions to reduce impact of rainfall on the waste water network.				Failure to secure Sustainable Design and Construction in new developments would pose increased loading on the waste water network.	All	N/A	N/A	2011-2015		CS13	Securing London's Water Future 2011 http://www.london.gov.uk/sites/default/files/water-strategy-oct11-exec-sum.pdf
Need	Flooding	Local Flood Prevention	Surface Water Management Plan (Harrow, Brent and Barnet including a prioritisation matrix)	LBB, Defra	Grant from Defra	£342,600	Non-compliance with requirements of Flood and Water Management Act 2010	All	N/A	N/A	2011-2015		CS13	Flood and Water Management Act 2010
Delivery	Flooding	Local Flood Prevention	Greywater Recycling & Rainwater Harvesting (within home design through Code Level 3)	Drain London	TBC	In Kind	South East England is an area of severe water stress and therefore measures to address this are needed	All	N/A	N/A	2011-2015	Critical	CS13	http://www.london.gov.uk/priorities/environment/water-management/rainwater-drainage
Delivery	Flooding	Local Flood Prevention	Green / Brown Roofs and SUDs (installation)	LBB, Developer Partners	Design Requirement funded through developments		Required as part of sustainability strategy for the comprehensive redevelopment	East	AAP: Mill Hill East	Various Phases	2011-2015	Necessary	CS13	Planning Application (ref. H/04017/09, live application - pending grant of permission)
Delivery	Flooding	Local Flood Prevention	Green / Brown Roofs and SUDs (installation)	LBB, Developer Partners	Design Requirement funded through developments	In Kind	Required as part of sustainability strategy for the comprehensive redevelopment	West	AAP: Colindale	Various Phases	2011-2015	Critical	CS13	Colindale Area Action Plan http://www.barnet.gov.uk/index/council-democracy/unitary-authorities/statutory-development-plans/colindale-area-action-plan-adopted-mar10.htm
Delivery	Flooding	Local Flood Prevention	Green / Brown Roofs and SUDs (installation)	LBB, BXC Partners	Funded by the BXC Partners	In Kind	Required as part of sustainability strategy for the comprehensive redevelopment	West	Brent Cross Cricklewood	Various Phases	2016-2020	Critical	CS2 & CS13	Brent Cross Cricklewood Planning Application (ref. C/17559/08 dated October 2010)